Course Descriptions

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 private non-profit 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; that is what identifies them as equivalent.

Equivalency of Sequences

In certain cases, sequence of courses in a given discipline are equivalent rather than the individual courses which make up the sequences. 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.

Examples 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: AMH, African History; AMH, American History; ASH, Asian History; EUH, European History; HIS, History-General; IAH, Latin American History; and WOH, World History. All history courses in the state will carry one of these prefixes.

A more specific example is AMH 2422, a core course in this area:

<table>
<thead>
<tr>
<th>AMH</th>
<th>2422</th>
<th>Early Florida History</th>
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</table>
| Broad Area of American History: part of discipline of History | | Last digit in this column refers to group of equated courses dealing with "Early History of Florida"
| Sophomore level offering (or equivalent institution) | In taxonomy for AMH 2400, series indicates "Areas in American History" |
| | In taxonomy for AMH 2422, series indicates courses in "History of Florida" |
| | (Local rules are used for each particular course. The last three numbers are used to indicate equivalency.) |

Exceptions to the Rule for Equivalencies

The following are exceptions to the general rule for course equivalencies:

0 - college preparatory credit
1 - freshman year
2 - sophomore year
3 - junior year
4 - senior year

In the example above, the institution which offers the course is the institution you will need to see a list of courses, a school offering the same course in the sophomore year will number it in the 2400 series. The variance in the numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantially equivalent.
A. All numbers which have a second digit of 9 (Ex. ART 2903) 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 courses 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 (C) SYMBOL COUNT IN THE ASSOCIATE IN ARTS DEGREE AND ARE TRANSFERABLE TO THE STATE UNIVERSITY SYSTEM.**

**COLLEGE CREDIT COURSES IN THIS CATALOG WITHOUT THE (C) 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 course 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 contact 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.**

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, deferrals and accruals, adjusting and closing procedures, the worksheet, preparing financial statements, and the use of special journals and subsidiary ledgers. An introduction to the computer system, bank reconciliations, and the petty cash fund. The course includes practical problems for both service generated businesses and merchandising concerns. 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 corporations. Emphasis will be placed on the following topics: inventory valuations, depreciation, and fixed asset valuation, payroll accounting, the use of data processing in accounting with an emphasis on internal control, and an introduction to partnerships and corporate accounting, including the basic characteristics and financial structure of these two business forms. The student must satisfactorily complete a practice set. The satisfactory completion of ACG 1003 and ACG 1004 is equivalent in the completion of ACG 201. 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: accounting cycle, adjusting, closing, and reversing procedures, the worksheet, preparing financial statements, accounting for a merchandising operation, special journals, and a study of internal control including the voucher system, petty cash and bank reconciliations. Other topics include
ACCOUNTING

payroll, inventory valuation, receivables and payables accounting for non-current assets, and introduction to cost accounting. Students must satisfactorily complete a prerequisite. The satisfactory completion of ACG 1003 and ACG 1004 is equivalent to the completion of ACG 2001. Three contact hours.

ACG 2101 Principles of Accounting II (T) 3 cr.
Prerequisite: ACG 2001. This course is a continuation of ACG 2001 with coverage of the following topics: accounting for bonds, long-term liabilities, inventories, 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 2102 Intermediate Accounting I (T) 3 cr.
Prerequisite: ACG 2101. This course is a continuation of accounting principles including a review of the accounting cycle with special attention given to working capital and an in-depth study of financial statements. Cash, receivables, current liabilities, inventories, plant and equipment assets and intangible assets. Three contact hours.

ACG 2103 Intermediate Accounting II (T) 3 cr.
Prerequisite: ACG 2102. This course is a continuation of ACG 2103 with coverage of the following topics: (1) management costing, (2) planning and controlling receivables (3) cost-volume-profit analysis, (4) variance analysis, and (5) capital budgeting. Three contact hours.

ACG 2360 Cost Accounting (T) 3 cr.
Prerequisite: ACG 2102. This course introduces the study of cost accounting and relates it to various managerial decisions. The course covers the study of cost accounting and its relationship to various managerial decisions. Three contact hours.

ACG 2500 Fund Accounting (T) 3 cr.
Prerequisite: ACG 2102. This course introduces the study of cost accounting and relates it to various managerial decisions. The course covers the study of cost accounting and its relationship to various managerial decisions. Three contact hours.

ACR—Air Conditioning/Refrigeration: Technology

ACR 1000 Introduction to Air Conditioning and Refrigeration 4 cr.
This course covers refrigeration, heat production, heat transfer and specific heat, heat temperature pressure chart, pressure relations, air braking, soft soldering, flaring and swaging. Eight contact hours. (Laboratory)

ADV—Advertising

ADV 2800 Advertising (T) 3 cr.
This basic course, designed to familiarize the student with the function of the advertising profession, covers consumer behavior, research and market segmentation. The course examines various kinds of advertising departments as well as the functions of the advertising agency itself—copy, art, media selection, TV-radio production, print production and accounts management. Students will prepare print advertisements and produce TV and radio commercials. Three contact hours.

AMH—American History

AMH 2010 United States History to 1865 (T) 5 cr.
This course in United States History to 1865, emphasizes the European background: Revolution, Articles of Confederation, the Constitution, problems of the new republic, sectionalism, vaccine during slavery and the War between the States. The course includes reading and writing assignments. Three contact hours.

AMH 2020 United States History Since 1865 to the Present (T) 3 cr.
This course, United States History from 1865 to the present, includes the reconstruction, growth of big business, the coming result, Latin American affairs, the progressive movement, the first World War and political, economic, and world affairs since World War II. Three contact hours.

AMH 2070 History of Florence (T) 3 cr.
Prerequisite: None. This course in the History of Florence emphasizes the explorations, U.S. acquisition, Convention of St. Joseph, Civil War and Reconstruction, and the growth of the 20th Century. Three contact hours.

AMH 2092 Afro-American History and Culture (From African Origins Through Reconstruction) (T) 3 cr.
This survey course deals with the trends, institutions, events and personalities of black people in the American past, including a brief treatment 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 origin of racism, economic, medical, educational, political and social problems, and the importance of the Civil Rights and Black Power movements. Three contact hours.

AMH 2093 Afro-American History and Culture (From World War II to the Present) (T) 3 cr.
This course is a non-sequential continuation of AMH 2092 with special emphasis on present and projected developments amongst black people. This course traces the origin of racism, economic, medical, educational, political and social problems, and the importance of the Civil Rights and Black Power movements. Three contact hours.

AML—American Literature

AML 2012 American Literature: Colonial Times to 1900 (T) 3 cr.
Prerequisite: ENC 1101. This course introduces to selections from American Literature: Colonial Period to the late 19th Century. Three contact hours.

AML 2023 American Literature: 1900 to the Present (T) 3 cr.
Prerequisite: ENC 1101. 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 3 cr.
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with airframe mechanics. Successful completion of the course will assist the students in preparing for the EAA licensing examination, as an Airframe Mechanic. Forty-five contact hours.

AMT 1812 Aircraft Technology Maintenance 3 cr.
This course will provide instruction in theory, maintenance procedures, and safety precautions associated with airframe and powerplant mechanics. Successful completion of the course will assist the student in taking the EAA licensing examination as an Airframe and Powerplant Mechanic. Forty-five contact hours.

AMT 1820 Aircraft Powerplants Mechanics 3 cr.
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 EAA licensing examination as an Airframe and Powerplant Mechanic. Forty-five contact hours.

AMT 1821 Aircraft Powerplants Mechanic Practicum 2 cr.
This course will provide instruction in theory, maintenance procedures, and practical application and safety precautions associated with airframe mechanics. Successful completion of the course will assist the student in preparing for the EAA licensing examination as an Airframe and Powerplant Mechanic. Eighteen contact hours (eight weeks).

ANT — Anthropology

ANT 2410 Cultural Anthropology (T) 3 cr.
Prerequisite: None. This course consists of the study of human culture, the concept of culture, and components of culture with emphasis on the different cultural adaptations of humanity worldwide. Three contact hours.

ANT 2511 Physical Anthropology (T) 3 cr.
Prerequisite: None. This course consists of the study of the human as a biological and cultural animal. It includes evolutionary adaptations and the human place in the ecological system. Three contact hours.

APA — Applied Accounting

APA 2321 Hotel/Inn/Restaurant Accounting 3 cr.
Prerequisite: ACC 1091. This course consists of the application of accounting principles and concepts to the analysis and management of hospitality properties. The course emphasizes controller functions, profit and loss statements, statistical analysis, and forecasts. Three contact hours.

APA — Applied Biology

APA 1150 Life in Its Biological Environment (T) 3 cr.
This course is an introduction to biological structure, function processes, principles and concepts. This course fulfills the general education requirement. Three contact hours.

APA 1150L Life in Its Biological Environment (L) 1 cr.
Concurrent enrollment. Three contact hours (laboratory).

APA 1220C Dental Assisting Anatomy and Physiology 4 cr.
This course, intended for students in the Dental Assisting program, consists of a systematic study of the human body in health and disease. The course emphasizes the science of anatomy, physiology and pathology but also includes elements of microbiology and chemistry in the examination of the structure and function of all the body's systems. Five contact hours, three lecture hours, two laboratory hours.

APA 1260 Cardiopulmonary Anatomy and Physiology 4 cr.
This course, designed to offer a thorough anatomical and physiological examination of the cardiorespiratory system, consists of an introduction to the sciences and history of the fields of anatomy, physiology, and pathology. The course includes a correlating examination of the skeletal system and development of the system. Five contact hours.

APA 1650 Pharmacology for the Respiratory Therapist (T) 4 cr.
Prerequisite: APA 1260. This course offers the student a detailed understanding and knowledge of the techniques involved in the field of pharmacology for the respiratory therapist and the application of this field to pulmonary diseases. Four contact hours.

APA 2190C Human Anatomy and Physiology I (T) 3 cr.
The student will benefit by taking CHM 1022C, APA 1150, HSC 2011C, ZOO 1010C, or High School Chemistry prior to enrolling in APA 2190C. This course, is a study of the gross morphology and physiology of the human anatomy, including the skeletal system, circulatory system, musculoskeletal system, and integument. Four contact hours: two lecture hours, two laboratory hours.

APA 2190C Human Anatomy and Physiology II (T) 3 cr.
Prerequisite: APA 2190C. A continuation of APA 2190C. This course covers the nervous system, special senses, the endocrine system, and the reproductive system. Four contact hours: two lecture hours, two laboratory hours.

APA 2233 Pulmonary Pathology (T) 4 cr.
Prerequisite: APA 1260. Pulmonary pathology is a study of the more common diseases of the cardiorespiratory 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 written language skills in the language. Conversations 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 on the audio tapes. This course is designed for everyday use of the language; it will not fulfill the General Education foreign lan-
Drawing

ART 1300C Drawing I (T) 3 cr.
This 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 2110C Ceramics: Hand-Building I (T) 3 cr.
The student will benefit by taking ART 1300C and ART 1200C prior to enrolling in ART 2110C. This course introduces the basic methods of ceramic production in hand-building and glaze application. Six contact hours; two lecture hours; four studio hours.

Prerequisite: ART 2110C. This course is a continuation of ART 2110C. Emphasizes creativity and specific problems. The course also includes kiln firing and theories. Six contact hours; two lecture hours; four studio hours.

ART 2112C Ceramics: Wheel Throwing I (T) 3 cr.
Prerequisite: ART 2110C. This course is a continuation of ART 2110C. Emphasizes creativity and specific problems. Six contact hours; two lecture hours; four studio hours.

Prerequisite: ART 2110C. This course is a continuation of ART 2112C. Emphasis is on the use of the wheel to form functional and decorative pottery. Six contact hours; two lecture hours; four studio hours.

Painting

ART 2510C Painting I (T) 3 cr.
Prerequisite: ART 1510C. This course introduces the student to basic oil painting techniques and color theory. Projects designed to test the student toward more independent work. Six contact hours; two lecture hours; four studio hours.

ART 2510C Painting II (T) 3 cr.
Prerequisite: ART 2510C. This course continues the study of the elements and principles of design. Six contact hours: two lecture hours; four studio hours.
PGY — Photography

PHOTOGRAPHY

Photography

PGY 2101C Photography I (T) 3 cr.
This course is an introduction to the use of the camera, laboratory and materials, and methods and procedures of creative applications of individual expressions in photography. The student must have a 35mm camera or equivalent. Materials fee: $15. Six contact hours: two lecture hours, four laboratory hours.

PGY 2102C Photography II (T) 3 cr.
Prerequisite: PGY 2101C. This course, a continuation of PGY 2101C, 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 1300C or ART 1301C. This course consists of instruction in line etching, relief etching, intaglio printing, and relief printing. Six contact hours: two lecture hours, four laboratory hours.

ART 2401C Printmaking II (T) 3 cr.
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 repeat this course for additional credit to a maximum of nine credit hours. Six contact hours: two lecture hours, four studio hours.

Sculpture

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

ART 2702C Sculpture II (T) 3 cr.
Prerequisite: ART 2701C, or permission of the instructor. This course, a continuation of ART 2701C, expands on the student's knowledge of casting and sculpting materials with emphasis on more advanced techniques. The student may repeat this course for additional credit to a maximum of nine credit hours. Materials fee: $15. Six contact hours: two lecture hours, four studio hours.

Textiles

ART 1106C Textile Design (T) 3 cr.
This course is an introduction to textile processes including silkscreen printing, batik, tie-dye and stamp printing. Six contact hours: two lecture hours, four studio hours.

ART 2101C Crafts As An Element of Design (T) 3 cr.
This course is an introduction to contemporary and traditional crafts, including weaving, batik, silk screening, tie dye, black printing, and leathercrafts. The student may repeat this course for additional credit to a maximum of nine credit hours. Materials fee $15. Six contact hours: two lecture hours, four studio hours.

Weaving

ART 2111C Beginning Weaving (T) 3 cr.
This course introduces to fiber processes including off-loom techniques, hand warp construction and weaving, and simple four-harness loom weaving. Techniques include binding, tying, braiding, knotting, tapestry, and twill variations. Six contact hours: two lecture hours, four studio hours.

ART 2115C Intermediate Weaving (T) 3 cr.
Prerequisite: ART 2111C, or permission of the instructor. This course supplements Beginning Weaving and introduces students to the weaving vocabulary. Processes include double weave, supplemental weft techniques, pattern draft, and color study. Six contact hours: two lecture hours, four studio hours.

ART 2116C Advanced Weaving (T) 3 cr.
Prerequisite: ART 2111C and ART 2115C, or permission of the instructor. This course is designed for the intermediate weaver who wants to investigate advanced processes and further techniques, emphasizing the aesthetic handling of fiber. Six contact hours: two lecture hours, four studio hours.

ASC — Aeronautical Science

ASC 1010 History of Air Transportation/National Airspace System 3 cr.
This course is designed to present a chronological historical review of the development of flying, as well as an overview of the problems facing the National Airspace System, airspace allocation, safety of flight, accident analysis, new developments in navigation and ATC systems, economic, social, and political impact. Three contact hours.

ASC 1210 Aviation Weather 3 cr.
This course consists of the fundamentals of aviation meteorology and its effects on aircraft and the Air Traffic Control System. Three contact hours.

ASC 1310 Federal Aviation Regulations/Legislation 3 cr.
This course is designed to familiarize the student with the Federal Aviation Regulations, contracts, insurance, liability, regulatory statutes and case law as relating to aviation. Three contact hours.

ASH — Asian History

ASH 2005 History of the Far East (T) 3 cr.
This course studies 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 on major in astronomy or related sciences. The student will become acquainted with the solar system with emphasis on the student's own planet and the nearest, the moon. The student will also study other planets, stars, comets, meteors, the Milky Way and other galaxies, and the theories of the universe. The course will discuss the stars and planets relevant to the most modern ideas. Three contact hours.

AST 1021. Astronomy Laboratory (T)
1 cr.
Prerequisite: Corequisite: 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 0624. Students will observe the moon, planets stars, and other objects and learn to use various types of equipment and simple procedures for obtaining useful astronomical data. If the weather is unfavorable, the instructor will schedule indoor laboratory exercises. Two contact hours (Laboratory).

ATT — Aviation Technology Flight

ATT 1000 Basic Flight I
3 cr.
Corequisite: FAA Private Pilot 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, Solo Flight, Basic Flying Techniques, and Solo Practice. Three contact hours—one lecture, two laboratory.

ATT 1000 Basic Flight II
3 cr.
This course is a continuation of ATT 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-flight procedures and precision flight maneuvers. The student will progress through the following stages: Pre-Solo Cross Country, Solo Cross Country, Private Pilot Certificate Review, Advanced Night Operations, and Introduction to Advanced and Precision Maneuvers. Three contact hours—one lecture hour, two laboratory hours.

ATT 1001 Instrument Flight I
3 cr.
Corequisite: FAA Private Pilot Rating. It is recommended that the student have at least 50 hours of prior flight time. This course consists of instruction and flight training in Instrument Flight Rules (IFR) operations. The student will learn the fundamentals of precise airborne attitude control by reference to flight instruments, radio navigation, and basic en route and departure procedures. Additionally, the student receives training in IFR approach and cross-country procedures. This course provides basic instruction in each type of instrumental approach and visual approach procedures. Satisfaction of this course requires that the student pass the FAA Instrument Flight Check. He will be awarded 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 as preparation for FAA Private Pilot Written Examinations, includes aviation history, airplane systems and instruments, weight, balance and performance, meteorology, and the fundamentals of flight, basic navigation, radio navigation, air traffic control, and communications. Includes Information Manual, and Federal Aviation Regulations. Three contact hours.

ATT 1120 Instrument Rating Ground School
3 cr.
Prerequisite: FAA Private Pilot Certificate. This course, a preparation for FAA Instrument Pilot Written Examination, reviews airplane systems and instruments, advanced meteorology, basic radio and transponder. Course concentrates on IFR, deicing equipment, IFR flight charts, IFR regulations and procedures, and instrument approaches. Three contact hours.

ATT 1810 Environment of the Air Traffic Controller
3 cr.
This course presents an overview of the air traffic controller's language, tools, and profession. Three contact hours.

ATT 2841 The Air Traffic Control Tower
3 cr.
This course includes a study of the operation of a control tower, visual separation techniques, and the tower's relationship to the control tower and the airport. Three contact hours.

ATT 2842 Approach Control
3 cr.
This course consists of the study of the operation of an approach control, radar and non-radar separation techniques, and the safe and expeditious movement of aircraft within the vicinity of the airport. Three contact hours.

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

ATT 2845 Radar/Computer Interface
3 cr.
This course consists of a study of the history of the impact of radar and its use on the air traffic system, the concept of the computer and an introduction to the computer's interface. Three contact hours.

ATT 2851 The Flight Service Station
3 cr.
This course presents a study of the operation of a flight service station to include weather observation, air-ground communications and flight planning briefing. Three contact hours.

AVM — Aviation Management

AVM 2941 Facility Inspection/Flight Safety
4 cr.
This course is designed to present an analysis of factors and procedures relating to Aviation Safety Programs, accident investigation, analysis, psychological and meteorological factors, and the effect of weather. The course includes familiarization with the Air Traffic Control System and its installation and maintenance. Three contact hours. Two contact hours one lecture hour, one laboratory/lab hours.

BAN — Banking

BAN 1110 Principles of Bank Operation
3 cr.
This course teaches on nearly every aspect of banking, providing a comprehensive introduction to the diversified services and operations of the
banking industry today. The history, evolution, and trends of banking are explored as well as the documents, language, and services of banking. Three contact hours.

BAN 1700 Financing Business Enterprise (1) 3 cr.
The student may receive up to 4 cr. in BAN 1700 before completing BAN 1701. This course emphasizes the difference between investing and investing, and the fact that investing in a corporation is different from that of the corporation. The course presents the material from the viewpoint of the corporate treasurer who must safeguard the financial future of the corporation. Three contact hours.

BAN 2412 Savings and Time Deposits 3 cr.
This course reflects the knowledge of the historical development of savings institutions and the basic function of the savings process. It introduces the comparison of the savings process in order to clarify the difference between financial savings by individuals and as an investment to secure a capital investment. Three contact hours.

BAN 2501 Money and Banking 3 cr.
Prerequisites: Economics (recommended but not required). This course provides the student with the basic concepts, theories, and techniques that link money, banking, and the role of banks as money creators are explored in this course. Students learn the role of banks in the economy and the role they play as money creators. Three contact hours.

BCN — Building Construction

BCN 1001: Building Construction 3 cr.
This course introduces the student to materials and methods used in building construction. This course also includes the analysis and evaluation of these materials in the construction of residential, commercial, and industrial buildings. Three contact hours.

BCN 2614 Planning and Estimating 3 cr.
Prerequisites: BCN 1001, ETI 1511. This course consists of a study of fundamental planning and a step-by-step method for preparing a quantity survey. The course includes job requirements, costs plus quantity estimating, and critical path method (CPM) of scheduling and preparing estimates in accordance with the C.S.I. format. Four contact hours: two lecture, two laboratory.

BCT — Building Construction Trades

BCT 1001: Quantitative Methods for Building Trades 2 cr.
This course provides the basic mathematical skills necessary for a career in the building trades. While focusing on important industrial applications, this course reviews the fundamental skills that are essential to success in all trades. Two contact hours.

BCT 1042: Construction Cost Estimating 3 cr.
Prerequisite: BCT 1001. This course is a study of the classification of work phases, quantity survey techniques, and cost estimating applied to simple construction projects. Three contact hours.

BCT 1043: Blueprint Reading II 2 cr.
Prerequisite: BCT 1043. This course is a continuation of BCT 1043, focusing on industrial and industrial construction projects. Topics include specifications, shop drawings, profiles, surveys, maps, and plans. Two contact hours.

BCT 1081: Construction Materials and Methods 5 cr.
This course provides an in-depth study of building materials and introduces the principles and methods of construction, with emphasis placed on structural elements. The course includes shopping materials and the role of the materials in the construction process. Two contact hours.

BCT 1112: Blueprint Reading II 3 cr.
This course includes the fundamentals of blueprint reading and sketching common to all construction trades. The course covers plans, elevations, sections, details, and views in section. Three contact hours.

BCT 1114: Concrete Forms Construction 3 cr.
Prerequisite: BCT 1001. This course describes the construction and use of various concrete forms employed in building construction. Forms described include concrete foundations, slabs, walls, columns, beams, and stairs. The course includes the student in gaining practical experience in making and setting forms under supervised conditions. Three contact hours: laboratory.

BCT 1132: Construction I 3 cr.
Prerequisite: BCT 1001. This course is a study of the structure of steel and wood-framed buildings, with emphasis on walls, columns, beams, and floor structure. Four contact hours: three lecture hours, one laboratory hour.

BCT 1134: Construction II 5 cr.
Prerequisite: BCT 1132. This course is a continuation of Construction I, focusing on roof construction, style, type, and combinations. Attention is given to the construction of steel and wood-framed buildings, with emphasis on walls, columns, beams, and floor structure. Four contact hours: three lecture hours, one laboratory hour.

BCT 1301: Introduction to Plumbing 2 cr.
This course familiarizes the student with the basic principles and definitions relating to the plumbing trade. The course includes instruction in layout and framing, basic plumbing, and the installation of residential and commercial plumbing systems. Three contact hours: laboratory.

BCT 1710: Energy-Efficient Construction 3 cr.
This course is an overview of energy use in buildings, including the determination of heat loss/gain in buildings, specific construction techniques to control heat loss/gain, passive solar design, and active solar systems. Three contact hours.

BCT 1805: Construction Scheduling 2 cr.
Prerequisite: BCT 1081. This course is a study of the orderly flow of resources through construction projects.
construction projects, through a well planned scheduled approach with emphasis on the I.P.M., PERT and diagram methods of scheduling. Two contact hours.

BCT 2152 Construction III
Prerequisite: BCT 1131. This course is a continuation of Construction II. The course focuses on exterior finishing methods and presents floor, ceiling, wall, door, window and stair systems through classroom and field work with construction of full-size or scaled models. Four contact hours; two lecture hours, one laboratory hour.

BCT 2153 Construction IV
Prerequisite: BCT 2152. Corequisite: BCT 2804. This course is a continuation of Construction III, focuses on interior finishes and includes instruction in floors, walls, moldings, doors, windows, cabinets and stairs. Four contact hours; three lecture hours, one laboratory hour.

BCT 2804 Construction Contracting
Corequisite: BCT 2153. This course is an in-depth study of the contractual relationship and the parties involved in building construction contracting. This course describes and identifies specifications, bonds, insurance, bidding, awarding, and subcontracting, types and conditions. Two contact hours.

BCT — Botany

BCT 1010C Botany (T)
An introduction to 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 2113C Legal Flora (T)
Prerequisite: BCT 1100C. An in-depth study of the structure and function of plants. Laboratory work will include field work including collecting and identifying vascular plants. Six contact hours; three lecture hours; three laboratory hours.

BRC — Banking: Related Courses

BRC 2301 Foundation and Structure of Credit Unions (T)
This course contains the historical and philosophical aspects of credit union movement and clearly portrays the structure and function of the credit union. The course emphasizes the need for ethical standards and behavior and examines the relationships in the credit union profession. Three contact hours.

BSC — Introductory Biological Science

BSC 2010C Principles of Biology I (T)
This course is an introduction to the Principles of Biology, including studies of cellular organization, genetics, and evolution. This course fulfills the General Education Requirements and is the laboratory requirement needed by many students who plan to transfer to a four-year institution. Five contact hours; three lecture hours, two laboratory hours.

BSC 2111C Principles of Biology II (T)
Prerequisite: BSC 2110C. This course is a continuation of BSC 2010C and recommended for science students transferring to a four-year institution, consists of a study of the systematic of life forms and a required laboratory experience to reinforce subject matter. Five contact hours; three lecture hours, two laboratory hours.

BUL — Business Law

BUL 2100 Business Law (T)
Prerequisite: Suggested BUL 101L. This course is an introduction to business law and is designed to provide an exposure to the practical aspects of business regulation. Three contact hours.

BUL 2112 Business Law (T)
Prerequisite: BUL 2100. This course covers subjects in business law with emphasis on the legal enforceability of contracts and commercial paper. These subjects will be helpful for students preparing for professional certification in areas such as accounting and real estate. Three contact hours.

CGJ — Criminal Justice

CGJ 1010 Introduction to Criminal Justice (T)
This course provides an overview of the criminal justice system and its relationship to society. The course emphasizes the study of the organization, functions and processes of criminal justice, the study of crime, and the role of the criminal justice system in society. Three contact hours.

CGJ 1020 Introduction to Criminal Justice (T)
This course provides a basic study of the nature and peculiarities of human behavior in the criminal justice system. The course examines the role of the criminal justice system in society, the process of law enforcement, and the administration of criminal justice in the United States. Three contact hours.

CGJ 1030 Men, Crime, and Society (T)
This course covers law enforcement and the criminal justice system. The course emphasizes the study of the organization, functions and processes of criminal justice, the study of crime, and the role of the criminal justice system in society. Three contact hours.

CGJ 1120 Criminal Law, Evidence, and Procedure (T)
This course consists of the study of the common law, the principles of criminal law, the classification and analysis of crimes, and the administration of justice in criminal trials. Three contact hours.

CGJ 1300 Introduction to Corrections (T)
This course provides an introduction to the organization and administration of corrections and rehabilitation in law enforcement. The course covers the principles of organization and administration, society and public service, and principles of correctional institutions. Three contact hours.

CGJ 1400 Police Administration (T)
This course provides an overview of police organization and administration, law enforcement, criminal justice, and public service. Three contact hours.
CJ 1401 Police Operations
3 cr.
This course teaches the theory and methods of police operations. The course includes information concerning the structure, function, and process of the patrol unit, the traffic administration unit, the criminal investigation unit, the intelligence and vice units and the juvenile investigation unit. Three contact hours.

CJ 2230 Criminal Evidence and Procedure (T)
3 cr.
This course consists of the study and examination of the criminal rules of evidence—boids, degrees, admissibility, competence and weight—specifically as they apply to law enforcement officers. The process of arrest, search, seizure, preservation, custody, testimony, and courtroom procedure. Three contact hours.

CJ 2250 Constitutional Law
3 cr.
This study of the United States and Florida Constitutions presents an in-depth analysis of constitutional law with emphasis on areas of arrest, search and seizure, interrogation, self-incrimination, and related topics of interest to law enforcement. The course also includes special emphasis on authority and limitations on police under the “Bill of Rights.” Three contact hours.

CJ 2330 Probation, Pardon, and Parole (T)
3 cr.
This course examines, as a minority based, corrections programs, probation as a judicial process and parole as an executive function. The course also reviews the use of pardons. Three contact hours.

CJ 2340 Treatment Techniques and Practices (T)
3 cr.
This course considers the use of various techniques for changing attitudes and behavior. The course also reviews the individual and group approaches to counseling. Three contact hours.

CJ 2460 Advanced and Contemporary Issues in Corrections (T)
3 cr.
This course describes and evaluates modern trends in corrections, such as the community based programs in work-release, halfway houses, contact program planning, as well as the therapeutic community and treatment concepts in institutions. Three contact hours.

CC 2500 Juvenile Delinquency (T)
3 cr.
This course considers the major issues of crime causation, rehabilitation, and juvenile delinquency prevention among the lower, middle, and upper social classes. The course also covers the process of handling juvenile delinquents from confrontation with authorities, to detention, to release and aftercare. Three contact hours.

CC 2590 Special Topics/Seminar - Criminology (T)
3 cr.
Each student in this course selects a critical issue in the contemporary law enforcement system to analyze. This analysis provides ideas for improvement which are then shared and critiqued in class. Three contact hours.

CJ 2950 Special Topics - Corrections (T)
3 cr.
This course includes research: writing and discussion of selected subject areas related to corrections, such as correctional planning for short-term offenders and misdemeanants, handling of "usual" prisoners, classification of offenders, authority and responsibility of correctional officers, professional and legal standards, and analysis of contemporary correctional problems. Three contact hours.

CET — Computer Engineering Technology

CET 2110C Introduction to Digital Electronics (T)
3 cr.
Prerequisites: CET 2124C. This course covers solid-state digital circuits, number systems, logic gates, digital codes, Boolean algebra, Karnaugh mapping, and combinational logic. This course requires laboratory participation. Four contact hours: two lecture hours; two laboratory hours.

CET 2114C Computer Logic Circuits
3 cr.
Prerequisites: CET 2110C, CET 2135C. This course covers computer circuits and systems, including the following topics: flip-flops and counters, registers, arithmetic units, computer processors, D/A and A/D conversion. The course also covers digital integrated circuits and introduction to microprocessors. Four contact hours: two lecture hours; two laboratory hours.

CET 2115C Microprocessors
3 cr.
Prerequisite: CET 2110C. Corequisites: CET 2114C. This course covers the fundamentals of programmable logic devices, the microprocessor, peripheral input/output devices, and analog/digital interface devices. The course also covers the principles common to all modern microprocessors and machine-level programming. Four contact hours: two lecture hours; two laboratory hours.

CET 2180C Computer Peripherals and Interfacing
3 cr.
Prerequisites: CET 2114C, CET 2135C. This course is a study of the interrelationships between the computer, control processing unit, and peripheral input/output devices. The course includes an examination of computer hardware, computer system, and an exploration of the uses of control hardware and system software. Three contact hours: two lecture hours; one laboratory hour.

CGS — Computers in General Studies

CGS 1000 Microcomputers in Business: A Survey (T)
3 cr.
This course introduces the theory and practical applications of personal computers in business environments. The course covers the history of computers, the role of microcomputers in business systems, and the use of computers in business applications. Students are introduced to the fundamentals of computer systems and the use of computers in business environments. Three contact hours: two lecture hours; one laboratory hour.

CGS 1060 Intermediate Computer Concepts (T)
3 cr.
This course provides an introduction to the use of personal computers for personal productivity and enjoyment. The course covers basic computer concepts and principles, including the use of computers for word processing, spreadsheet applications, and the use of computers for personal productivity and enjoyment. Three contact hours: three lecture hours; one laboratory hour.

CGS 1061 Introduction to IBM Personal Computers and DOS
1 cr.
This course introduces students to the IBM personal computer and the DOS operating system. The course covers the basic principles of computer operation, the use of personal computers for personal productivity and enjoyment. The course covers the basic principles of computer operation, the use of personal computers for personal productivity and enjoyment. Four contact hours: two lecture hours; one laboratory hour.
CGS 1510 Introduction to Spreadsheet Concepts 1 cr.
This course is designed for individuals who wish to master and use software for spreadsheet operations. The course is directed toward novices, first-time owners of personal or business computers, and persons who would like to learn more about spreadsheet software. Covered in the course are topics such as the history and development of spreadsheet software, spreadsheet design and construction, and the computer use for construction of business spreadsheets. Twenty contact hours.

CGS 1511 Advanced Spreadsheet Concepts 2 cr.
Prerequisite: CGS 1510 or demonstrated experience with spreadsheet software. This 40-hour course is designed for individuals who wish to build on their prior knowledge of spreadsheet operations with such advanced topics as spreadsheet database, graphics, and macros. The course is directed toward executive secretaries, administrative assistants, managers, and executives with the need to perform spreadsheet activities with financial applications. Activities in the course include constructing advanced financial spreadsheets, printing graphs from spreadsheets, searching, and sorting spreadsheet databases, and automating spreadsheet operations with macro programs. Forty contact hours.

CGS 1540 Introduction to Data Base Concepts 1 cr.
This five-week course introduces individuals to 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 are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports are covered. Forty contact hours; three lecture hours; one laboratory hour.

CGS 1561 Advanced Data Base Concepts 2 cr.
Prerequisite: CGS 1540; or working knowledge of data base software. This ten-week course provides individuals with basic models and capabilities of standard data base management system 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 are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports are covered. Forty contact hours; three lecture hours; one laboratory hour.

CGS 1570 Microcomputer Application Software (T) 3 cr.
This course is designed for individuals with no previous experience in data processing. It stresses the student to DOS, word processing software, electronic spreadsheet software, data base software, and business graphics software to solve common problems of the automated office. Forty contact hours; three lecture hours; one laboratory hour.

CGS 1571 Management Overview of Microcomputer Software 1 cr.
This 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 new knowledge and ability to select microcomputer software for business applications. Forty contact hours; two lecture hours; two laboratory hours.

CGS 2020 Computer Concepts 3 cr.
This course is an introduction to the computer. The course covers computer literacy, emphasizing concepts of hardware and software including programming documentation on the Apple II and Apple IIe computers. The course includes a survey of the general processing unit 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 discussions of programming in machine language. Twenty contact hours.

CGS 2100 Advanced Microcomputer Business Applications (T) 3 cr.
Prerequisites: CGS 2020 and CGS 2574; or equivalent work experience and ACU 201; or equivalent work experience. This course is a skill development course in which students will process transactions, build files, maintain files, and produce reports on microcomputers. Students will work with software packages and input documents to which applications are implemented. Specific application instruction includes order entry, invoicing, accounts receivable, payables, purchasing, financial reporting, and projections using spreadsheets. Forty contact hours; three lecture hours; one laboratory hour.

CGS 2470 Computer Aided Drafting and Design (T) 3 cr.
Prerequisite: ETD 1100. This course provides a student with a general understanding of Computer Aided Drafting and Design operations. The student will acquire a working knowledge of AutoCAD required for initializing commands in the CAD system using the keyboard and the stylus. The student will create drawings using various menus and will command the system to create a sequence of any current Active drawing in the system. Six contact hours; two lecture hours; four laboratory hours.

CGS 3352 Spreadsheet Concepts and Practices 3 cr.
This course is designed for individuals who wish to master and use spreadsheet software. This course is directed toward novices, first-time owners of personal or business computers, and persons who would like to learn more about spreadsheet software and operations. Covered in the course are the history and terminology of spreadsheet software, spreadsheet design and construction, and use of spreadsheets in the financial applications. Also covered are spreadsheet graphics, spreadsheet data base, and spreadsheet automation. The course requires use of the IBM personal computer or compatible. Forty contact hours; three lecture hours; one laboratory hour.

CGS 2541 Data Base Management Concepts and Practices (T) 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 rules, and advantages will be explained. Experience within this course is centered around data base programs that run on microcomputers. The capabilities of the three major data models: hierarchal, network, and relational will be covered. A series of data base application projects on microcomputer are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports are covered. This course includes advanced programming in a fourth generation data base language.

CHD — Child Development

CHD 1110 Infant and Toddler Care I (Development) 3 cr.
This course introduces infant and toddler care workers to the stages of human development from birth to three years. The course also covers the impact of health, parenting, environment, nutrition, mental health, and self-esteem on normal and abnormal development. Three contact hours.

CHD 1220 Child Growth and Development I (T) 3 cr.
This course is an introductory study of physical, social, emotional, and cognitive development, conception through age six. The course stresses acquisition of skills in child observation and recording, and behavior management. It includes Module IV of the HHS Child Care Worker Training Course. Three contact hours.

CHD 1710 Child Growth and Development II 3 cr.
Prerequisite: CHD 1220. This course focuses on the young differently-abled child, children in crisis, working with families: behavior management, nutrition, health, and safety in the early childhood classroom. The course includes Modules II and III of the HHS Child Care Worker Training Course. Three contact hours.

CHI — Chinese

CHI 1000 Conversational Chinese I 3 cr.
This course concentrates on the development of oral and conversational skills in the language. Communicative, social, 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.
Prerequisite: MAT 1035 or satisfactory score on an 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. Two credit hours.

CHM 1020 Chemistry for Liberal Arts (T) 3 cr.
The student will benefit by taking high school algebra or MAT 0024 prior to enrolling in this course. This course is designed for the general education requirements for the non-science major. It 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 illustrative principles rather than merely listing phenomena. Three contact hours.

CHM 1025C Introduction to General Chemistry (T) 4 cr.
Prerequisite: MAT 1035. This course is an introduction to the sciences of inorganic chemistry including structures of matter, atomic theory, measurement, bonding, gases, solutions, equilibrium, and acids and bases. This course is for students who have had no previous chemistry and plan to major in science, engineering, premedicine, and pharmacy. Six credit hours: four lecture/discussion hours; two laboratory hours.

CHM 1030C Introductory Chemistry I (T) 4 cr.
The student will benefit by taking high school algebra or MAT 0024 prior to enrolling in this course. This course is an introduction to the principles of inorganic chemistry, including topics in structure of matter, gas laws, solutions, ionization, chemical equations, atomic theory, acids and bases, ionic and non-ionic. This course is for those students who have had no previous chemistry and for those planning to major in physical education, health related fields, medical technology, and home economics. Six contact hours: three lecture hours; one three-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 1032C Principles of General Chemistry (T) 4 cr.
The student will benefit by taking high school algebra or MAT 0024 prior to enrolling in this course. This course is an introduction to the concepts of inorganic chemistry including structure of matter, atomic theory, measurement, bonding, gases, solutions, equilibrium, and acids and bases. The laboratory work will be quantitative in nature, stressing 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 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 1025C or 1032C. This course is designed to introduce student to modern chemical concepts, including modern atomic structure and periodic, chemical bonding, states of matter, gas laws, and solutions. The laboratory work will be quantitative in nature, stressing 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 three-hour laboratory.

CHM 1066C General Chemistry and Qualitative Analysis II (T) 4 cr.
Prerequisite: Grade of C or better in CHM 1045C. This course, a continuation of CHM 1045C, stresses chemical equilibria, chemical kinetics, electrochemistry, oxidation-reduction, and selected features of
metals and non-metals. Laboratory work includes studies of iron equilibrium in aqueous solutions and semi-micro qualitative analysis. Six contact hours: three lecture hours; three laboratory hours.

CHM 2200 Survey of Organic Chemistry (T) 3 cr.
Prerequisite: CHM 1015C. This course is intended as an introduction to organic principles for any student needing background preparation in organic chemistry. This course will not satisfy the requirements for majors requiring one year of organic laboratory. Topics in the course include bonding, structure, reactivity, organic groups with emphasis on nomenclature, structure, and properties. Three contact hours.

CHM 2201L Laboratory for Organic Chemistry (T) 1 cr.
Corequisite: CHM 2200. This is an introductory laboratory course to be taken simultaneously with CHM 2200, Introduction to Organic Chemistry. This course covers the fundamentals of organic chemistry laboratory practices. Three contact hours (laboratory).

CHM 2250. Introductory Organic/ Biochemistry (T) 4 cr.
Prerequisite: CHM 1015C. This course is an introduction to organic chemistry, biofunctional groups, and a survey of the biochemistry of proteins, carbohydrates, lipids and nucleic acids. Six contact hours: three lecture hours; three laboratory hours.

CIS — Computer and Information Systems

CIS 1321 Computer Systems Development (with High Level Tools) (T) 3 cr.
Prerequisites: CGS 1010 and CGS 1570, 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 a process, as structured, approach to the definition of needs, creation of specifications, and implementation of new systems. Prototyping and fourth generation software tools are used to design and develop business systems. Four contact hours: three lecture hours; one laboratory hour.

CIS 1400 Data Processing Workshop (T) 3 cr.
Prerequisite: CIS 1060. This course provides the opportunity for students to gain actual experience operating a medium-sized computer system in a production environment. This experience will be supplemented with field trips. Topics include organization of data processing departments, functional characteristics of peripheral devices, operating systems, and job control. Eight contact hours: three lecture hours; five laboratory hours.

CIS 2300 Command-Level CICS Programming 3 cr.
Prerequisites: COP 2120 and COP 2540. This course provides training in Customer Information Control Systems (CICS), a general purpose data base and data communication interface between an operating system and application programs. Students will learn design, code, test, and debug programs in CICS 2 for real-time applications. Four contact hours: three lecture hours; one laboratory hour.

CIS 2321 Information Systems (T) 3 cr.
Prerequisite: COP 2540. This course, designed to introduce the student to the fundamental concepts of information systems, emphasizes current system documentation techniques through the use of both classical and structured tools/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, online, 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 — Criminal Justice Development

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

CJT — Criminal Justice Technology

CJT 2100 Fundamentals of Criminal Investigation (T) 3 cr.
Criminal Investigation covers general investigative principles and techniques used by law enforcement. This fundamental course introduces students to the most important phases of criminal investigation, deals with the following branches of criminal investigation: interviewing, crime scene development, fingerprinting, latent fingerprints, trace evidence, document examination, ballistics, and crime scene photography. Three contact hours.

CJT 2110 Surveillance 3 cr.
With Criminal Investigation as its basis, Criminal Investigation II is an introduction to the scientific aspects of investigation. Known as criminalistics, with emphasis on crime scene techniques in specialized areas such as ballistics. Special attention will be given to investigative techniques using modern scientific crime identification methods. Three contact hours. CNM — Computational/ Numerical Methods

CNM 1005 Data Processing Mathematics (T) 3 cr.
Prerequisite: CGS 1060 and MAT 0020. An intensive study of mathematics for computer science. This course is designed for students in Computer and Information System majors. Topics include: binary, octal, and hexadecimal numbers; fixed and floating-point arithmetic; computer codes; packed and unpacked; scientific notation; binary point notation and storage; and logical operations and sequence of operation. Computer laboratory exercises will be used to demonstrate the topics and techniques involved. Four contact hours: three lecture hours; one laboratory hour.

CDA — Consumer Affairs

CDA 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,
COP — Computer Programming

COP 1000 Introduction to Programming and Algorithm Design (1) 3 cr.
Prerequisites: CGS 1050. This is an introductory course for data processing majors. It will introduce the fundamentals of computer usage, covering topics such as editor functions, files, search and interactive, and program compilation and execution. Students will learn algorithm design using structured flowcharting and pseudocode techniques. The programming language PASCAL will be introduced and used throughout the course to supplement the theoretical foundations that are being built. Four contact hours; three lecture hours; one laboratory hour.

COP 1160 RPG Programming 3 cr.
Prerequisites: CGS 1060, RPG (Report Program Generator) is a problem oriented programming language designed to achieve automation from single entry multiple entry, perform calculations, and routine business process. Students will write elementary tasks, codes, and routines to extract, transform, and load data. They will also write and submit RPG programs, developing programs for the computer system, and test and debug programs until the output is perfect. Four contact hours; three lecture hours; one laboratory hour.

COP 1344 Introduction to UNIX Operating System 2 cr.
This one-week course requires substantial lab time on microcomputers to learn about and apply the UNIX operating system functions and commands that are necessary in a working environment. Students will review the basics of initializing drives, and move on to programming language, copying, file management, backup and recovery, and other functions. Operating systems topics include multi-user systems, data communication, and establishing interfaces involving microcomputers, minicomputers, and mainframes. Four contact hours; three lecture hours; one laboratory hour.

COP 2120 COBOL Programming (1) 3 cr.
Prerequisites: CGS 1000 and COP 1000. COBOL (Common Business Oriented Language) is the programming language specifically designed to solve business problems. Students will write elementary tasks, codes, and routines to extract, transform, and load data. They will also write and submit COBOL programs, developing programs for the computer system, and test and debug programs until the output is perfect. Four contact hours; three lecture hours; one laboratory hour.

COP 2121 Advanced COBOL Programming (1) 3 cr.
Prerequisites: COP 2120 or equivalent experience. COBOL (Common Business Oriented Language) is the programming language designed to solve business problems. Students will write moderate complex business problems by writing COBOL programs, submitting programs for compilation and testing on the College's computer system, and test thoroughly debugging programs until the output is perfect. Four contact hours; three lecture hours; one laboratory hour.

COP 2170 Programming in BASIC (1) 3 cr.
Prerequisites: CGS 1060 and one of the following: MTH 1321, COP 1000, MAT 1031. This beginning level computer course uses the BASIC (Beginner's All-purpose Symbolic Instruction Code) language in an active 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 (1) 3 cr.
Prerequisites: COP 2170. This course provides training in advanced BASIC programming exclusively for microcomputers. Special emphasis is placed on string handling techniques, searching and sorting techniques, sequential access files, random access files, indexed files, scientific calculations, and graphics. Four contact hours; three lecture hours; one laboratory hour.

COP 2200 FORTRAN Programming (1) 3 cr.
Prerequisites: CGS 1060 and one of the following: MTH 1321, CNM 1005, MAT 1031. This is an introductory study of the scientific programming language which is also used in business applications in batch-job 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 2210 Introduction to Pascal Programming (1) 3 cr.
Prerequisites: COP 1000, COP 1060 and MAT 1031. This course will include the student in the fundamentals of Pascal program development including algorithm design, program definition, coding, testing, and debugging. Modularity will be learned, using programming-defined functions and procedures. Pascal was designed to be easily learned and used, and encourages structured programming. It contains numerous 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 2400 Basic Assembly Language Programming (1) 3 cr.
Prerequisites: CGS 1000 and CNM 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. This introductory course begins with an overview of the language and its capabilities. Students will learn the basic concepts of assembly language programming, including addressing modes, machine instructions, and program structure. Four contact hours; three lecture hours; one laboratory hour.

COP 2540 Data Management and Job Control Language (1) 3 cr.
Prerequisite: CGS 1060. This course consists of a study of the data and job control language as well as the use of utility programs as components of an application system on both batch and mainframe systems. Topics will also include an introduction to data bases and data base management systems. Four contact hours; three lecture hours; one laboratory hour.

COP 2610 Advanced Computing and Programming Systems (1) 3 cr.
Prerequisites: COP 2120 and proficiency in computer programming. This course is designed to help students with programming experience to write more efficient programs through a better understanding of hardware and system software. Topics include computer architecture, operating syst-
terms, language environment, and data communication/de-data processing. Four contact hours; three lecture hours; one laboratory hour.

COP 2122 Microcomputer Operating Systems Concepts (T) 3 cr.
Prerequisite: CGS 1060 and CGS 1570, or equivalent work experience. This course requires substantial lab time on microcomputers to learn about and apply the operating system functions and commands that are valuable or necessary in a working environment. Students will review the basics of personal computers, and move on to programming language, copying, file management, backup and recovery, sort, and other routines. Operating systems reviewed in this course are MS-DOS and UNIX. Other topics include multi-user systems, data communication, and establishing interfaces involving microcomputers, minicomputers, 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 an introduction to the political 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: ENC 1102. This course develops the student's capacity for imaginative writing in prose and/or poetry. The course includes critical discussion of student's work and of selected literary techniques and individual conferences. Three contact hours.

CCE — Clothing and Textiles

CET 110C Basic Clothing Construction (T) 3 cr.
This course includes the selection and use of commercial patterns, simple alterations; selection, use, and care of modern sewing and pressing equipment; planning and construction of garments, and developing basic construction skills. The course also includes the selection of suitable accessories. Four contact hours; two lecture hours; two laboratory hours.

CET 1340C Advanced Clothing Construction (T) 3 cr.
Prerequisite: CET 1310C. This course presents to the participant the problems encountered in fitted garments construction. The student will exhibit skill in figure analysis, pattern alterations, and advanced clothing construction techniques. Four contact hours; two lecture hours; two laboratory hours.

CET 1350C Tailoring I 3 cr.
Prerequisite: CET 1310C or the equivalent. This course, designed for the student who is interested in creating individual fashions which meet the student's special preferences and requirements, emphasizes individualized approach to custom design, fit, advanced construction, and tailoring techniques. Four contact hours; two lecture hours; two laboratory hours.

CET 140C Basic Textiles (T) 3 cr.
This course is a study of fabrics used for clothing and house furnishings, emphasizing fibers, yarns, constructions, designs and finishes that determine quality and the performance of a fabric. This course also includes the sources and care of fabrics and cost factors. Four contact hours; two lecture hours; two laboratory hours.

CET 1812 Introduction to Fashion Merchandising 3 cr.
This course, an introduction to the clothing and textiles industry, includes the selection of career opportunities, consumer behavior, the historical development of fashion, the environmental influences on fashion demand, and the marketing of fashion. Three contact hours.

CET 1825 Merchandising Mathematics and Buying Procedures 3 cr.
Prerequisite: CET 1812. This course provides essential skills in the application of math to the clothing and textile industry. Three contact hours.

CET 1840 Fashion Merchandising Product Information 3 cr.
Prerequisite: CET 1810C. This course provides the student with the opportunity to acquire knowledge in the planning and merchandising of 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 this knowledge effectively to the consumer. In addition, the course will develop fashion vocabulary and analyze consumer demands and trends. Three contact hours.

CET 2200 Wardrobe Planning and Updating (T) 3 cr.
This course provides the student with the opportunity to acquire knowledge in the planning of individual and family wardrobes. Students consider the purchasing of wardrobe items, the care of clothing items, and the relationship of physical appearance and clothing selection. This course will foster the development of dressing knowledge and the impact of legislation on retailing activities. Three contact hours.

CET 2285 Fashion Merchandising Computer Applications (T) 3 cr.
Prerequisite: CET 1825. This course is an introduction to the computers and techniques of computer use in retailing. The course will emphasize the application of automated techniques to retailing and the impact of legislation on retailing activities. Three contact hours.

CET 2851 Fashion Sales Presentation (T) 3 cr.
This course is an introduction to the methods most commonly used by fashion merchandisers for promoting sales. Instruction will include an evaluation of the effectiveness of various methods of presentation, visual merchandising, fashion show, and personal selling according to individual retail needs. Three contact hours.

CET 2880 Fashion Merchandising Internship (T) 8 cr.
Prerequisite: Completion of all major program requirements. This course is a supervised on-the-job training program, requiring students to work a minimum of 40 hours for a minimum of 12 weeks in an approved retail business. This course offers the student an opportunity to practically apply knowledge gained in the pre-
with a government; keep financial records; maintain an efficient recall system; maintain patient record file; keep books and records for tax purposes; do bookkeeping; write business letters; and purchase and maintain supplies. Three contact hours.

DAA 2800C Clinical Practice I 5 cr.
This course provides the dental assisting student with a knowledge of chair-side assisting, equipment and its installation, maintenance of equipment, basic care and use of the dental materials commonly employed in a dental office; the ability to select and prepare properly all instruments for operative, prosthetic, and surgical procedures; and the ability to work with the dental operator. Eight contact hours: four lecture hours; four laboratory hours.

DAA 2801C Clinical Practice II 6 cr.
Prerequisite: DAA 2800C. This course is a continuation of DAA 2800C. This course consists of nine hours of lecture, four hours of laboratory, and eight hours of field experience covering clinical dental assisting skills. Fourteen contact hours: twelve lecture hours; four laboratory hours; eight field hours.

DAA 2802C Clinical Practice III 5 cr.
Prerequisite: DAA 2801C. This course is a continuation of DAA 2801C. This course consists of twelve hours of field experience in the dental specialties such as orthodontics, periodontics, and oral surgery. Twelve contact hours (field).

DAA 2803C Clinical Practice IV 5 cr.
Prerequisite: DAA 2802C. This course consists of sixty hours 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 1803C Principles of Dental Hygiene 5 cr.
Principles of Dental Hygiene, offered during the student's first term of the first year of clinical studies, is a basic introductory course to teach the theories and practices in dental hygiene, and a prerequisite to Clinical Dental Hygiene I. Through lectures, demonstrations, laboratory and clinical experiences, and task assignments, the student gains knowledge and comprehension of dental hygiene services, and a proficiency in coordination of technical skills necessary to prepare the student to begin preventive and therapeutic patient care. Eight contact hours: four lecture hours; four laboratory hours.

DEH 1800C Clinical Dental Hygiene I 5 cr.
Prerequisite: DEH 1803C. This course is a continuation of the Prerequisites: DEH 1800C. This course is a continuation of the Prerequisites: DEH 1800C. 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. The purpose of this course is to provide the students with clinical experience in the area of dental hygiene education. This course will also include CEP: Ten contact hours; four lecture hours; eight clinical hours.
DEH 1802L Clinical Dental Hygiene II 8 cr.
Prerequisite: DEH 1800C. This course, a continuation of the practical application of the competencies and skills acquired in Clinical Dental Hygiene, DEH 1801C, and Clinical Dental Hygiene I, DEH 1800C, devotes time to providing oral prophylaxis care for patients, who possess varying classifications of prophylaxis needs. The course emphasizes the continuing refinement of the techniques and skills in performing oral prophylaxis including Gracey curves in root planing, periodontal, and dental calculus, radiographic techniques and interpretations, dietary analysis, and efficiency and 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 student expanded functions as permissible by the Florida State Dental Practice Act, will include new procedures as traditional expanded functions are ratified by the Department of Professional Regulations, Board of Dentistry (Chapter 216-16). This course will also include manipulation of Dental Materials utilizing dental hygiene techniques. Three contact hours: one lecture hour; two laboratory hours.

DEH 2602 Periodontics 2 cr.
This course, designed to give the student a detailed study of the tissues involved in periodontal pathology and its etiology reviews in detail the anatomy, physiology, and histology of the periodontium. The course emphasizes diagnosis, prognosis, and treatment of patients with periodontal involvement, and management of patients receiving maintenance care. The course also teaches procedures and techniques for subgingival curettage, periodontal dressing placement and removal, and sulcular curettage. Two contact hours.

DEH 2701 Community and Preventive Dentistry 5 cr.
This course incorporates the principles, practices, methods, and visual aids used in teaching preventive dentistry to the public. Field experiences in elementary schools, public health centers, nursing homes, and centers for the handicapped will be utilized. Four contact hours: two lecture hours, two field hours.

DEH 2804L Clinical Dental Hygiene III 8 cr.
Prerequisite: DEH 1802L. This course, a continuation of DEH 1802L, emphasizes the continuing refinement and efficiency of clinical skills including complete prophylaxis procedures, radiographs, and management of patients, individual responsibilities, achievement in responsibility toward the community, the profession, and dentistry in general. The student should achieve an advanced level of proficiency. Sixteen contact hours (clinic).

DEH 2806L Clinical Dental Hygiene IV 8 cr.
This course is a continuation in refinement of practical application of the competencies, and the proficiency in skills learned in all previous classes. The emphasis is upon speed and quality improvement, and upon exposure to community dentistry performing in offices of general dentists, dental specialists, and hospital dentists. The student should achieve an expert level of proficiency. Sixteen contact hours (clinic).

DEH 2930 Dental Hygiene Seminar I 2 cr.
This course, designed to provide a more comprehensive coverage of all specialties of dentistry, enables the dental hygiene student to become more cognizant of techniques and procedures in dentistry outside the parameters of dental hygiene. The course consists of discussions designed to make the dental hygiene student understand and appreciate certain aspects of dentistry to which dental hygiene services are closely allied. Ten 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 communications, professional organizations, state dental practice acts, and practical considerations 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 2804 Human Growth and Development (T) 3 cr.
This course consists of the study of the development of the individual throughout the life cycle, including childhood, adolescence, and adult patterns of behavior, with attention to physical, intellectual, emotional, social, and industrial 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 adolescence period. The course discusses theoretical considerations and 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 late adulthood. The course includes social and industrial aspects of aging, marriage, choice of occupation, parenthood, and retirement, along with other developmental tasks and issues. Three contact hours.

DES — Dental Support

DES 1020C Oral Development 3 cr.
This course is a comprehensive study of oral 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 1110C Dental Materials and Laboratory 3 cr.
This course is a series of lecture-demonstrations designed to acquaint dental hygiene students with the nomenclature, properties, manipulation, and application of the materials used in the laboratory and clinical practice of dentistry. The course also considers the procedures for purchasing and storage of supplies. Four contact hours: two lecture hours; two laboratory hours.
DES 1220C Dental Radiology

(Dental Assisting/Dental Hygienist) 3 cr.
This course is designed to teach the proper care of dental x-ray equipment, including radiation safety, the taking, processing, and mounting of dental radiographs, both intraoral and extraoral, includes evaluation techniques, identifying landmarks and distortions (from the normal), and the filing of dental radiographs. Four contact hours, two lecture hours, two laboratory hours.

DES 2012 Oral Pathology 3 cr.
This course gives the student a detailed understanding and knowledge of the causes and mechanisms of oral disease, oral trauma, and developmental anomalies. It includes an overview of the systemic physiology of the body. Three contact hours.

DES 2050 Pharmacology 3 cr.
This course gives the student a detailed understanding of the principles, characteristics, actions, reactions, and uses of medicines, 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 study of the role of dietetic personnel in health care food systems. The 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.

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

ECO — Economics

ECO 2013 Principles of Economics I (1) 3 cr.
This course in microeconomics presents the foundations of economic analysis, the theory of economic growth, development, and stabilization, current economic issues, and the monetary theory. Three contact hours.

ECO 2013 Principles of Economics II (1) 3 cr.
Prerequisite: ECO 2013 or consent of professor. This course in microeconomics is a continuation of ECO 2013 and includes study of the tools for offensive 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 1516 Understanding Community Economic Development (1) 3 cr.
This course examines the 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.

EDF — Education Foundations

EDF 1005 Introduction to Education (T) 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 student is introduced to the problems and the rewards of the profession. Three contact hours.

EDG — Education General

EDG 2900 Observing and Recording Child Behavior (T) 6 cr.
Prerequisites: CHD 1220 and EEC 1001. This course is designed for students to observe, record, and analyze young children's behavior in preschoolor settings. The course includes a two-hour seminar and eight 3-hour supervised experiences weekly. Ten contact hours: two lecture hours, eight laboratory hours.

EDG 2911 Supervised Student Participation (T) 6 cr.
Prerequisites: CHD 1220, CHD 1710, HED 2500, EEC 1001, EEC 1201, and EED 1202. This course is designed for students to apply acquired knowledge and skills through supervised work experiences in child care facilities. The course includes two-hour seminar and eight supervised field experiences weekly. Ten contact hours: two lecture hours, eight laboratory hours.

EDP — Educational Psychology

EDP 2002 Educational Psychology (T) 5 cr.
Prerequisite: PSY 1012. This course consists of an in-depth study of the relationships between social psychology and educational practice which will lead to the establishment of proper teaching techniques and to the understanding of personality dynamics of students. Three contact hours.

EEC — Education: Early Childhood

EEC 1901 Introduction to Early Childhood Education (T) 5 cr.
This course introduces basic principles and practices involved in working with the young child. This course includes theory and objectives of early childhood programs, child care issues, center licensing standards, and classroom activity planning. The course includes Module 1 of the ECE Child Care Worker Training Course. Three contact hours.

EEC 1201 Overview of Early Childhood Curriculum 1 3 cr.
Prerequisite: EEC 1001. This course acquaints the student with basic principles and resources for music, art, language arts, and social studies activities for the young child. The course includes teacher planning and methodology. Three contact hours.

EEC 1202 Overview of Early Childhood Curriculum 2 3 cr.
Prerequisite: EEC 1001. This course acquaints the student with basic principles and resources for health, safety, nutrition, self-care, science, and movement education activities for the young child. The course includes teacher planning and methodology. Three contact hours.
EET — Electrical/Electronics Repair

EET 1067 Mechanical Devices for Electric 3 cr.
This course includes the basic laws, principles, and operation of mechanical devices, along with a study of force, work, power, simple machines, flexure, gear trains, and drives, explained in both classroom and laboratory conditions. Four contact hours; two lecture hours, two laboratory hours.

EET — Electronic Engineering Technology

EET 1094 Fundamentals of General Electricity 3 cr.
Designed for the non-electrical engineering technician to provide a general knowledge of electrical phenomena. This survey course of 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 3 cr.
Corequisite: MAC 1104. 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, Kirchhoff's Current, and Voltage Laws; Thévenin's Theorem; power, work, and energy; series and parallel circuits; magnetism, capacitors, inductors, and measuring instruments devoted to the application of acquired theory. The course emphasizes the proper use of multimeter in measuring equipment. Five contact hours: three lecture hours; two laboratory hours.

EET 1025C AC Theory and Circuits 3 cr.
Corequisite: MAC 1114; Prerequisite: EET 1013C. This course continues the study of the nature of waves with emphasis on sinusoidal waves and the analysis of steady-state electrical circuits. Typical units of instruction include Sinusoidal Alternating Current (Phasor, Series and Parallel) AC Circuits and Networks, Power, Transformers, Reactance, Polyphase Systems and a laboratory experience to reinforce the student's understanding of important theoretical concepts. Five contact hours: three lecture hours; two laboratory hours.

EET 1035C DC/AC Fundamentals (T) 4 cr.
This is the first course in the electronics sequence and consists of the introduction to the concepts, laws, and definitions encountered in DC and AC electrical circuit. It combines laboratory and classroom work. Five contact hours; three lecture hours; two laboratory hours.

EET 2119C Amplifier Circuits (T) 3 cr.
Prerequisite: EET 2121C. This course covers small-signal and power bipolar transistor amplifiers. It also includes coverage of field-effect transistors and vacuum tube amplifier circuits, with required laboratory participation. Four contact hours: two laboratory hours; two lecture hours.

EET 2124C Introduction to Solid State Electronics (T) 3 cr.
Prerequisite: EET 1019C. Corequisite: EET 1023C. This is an introductory course covering the principles of operation of solid-state (semiconductor) devices and circuits. Emphasis is on PN junctions, junction diodes, and bipolar transistors, with participation in laboratory exercises required. Four contact hours: two lecture hours, two laboratory hours.

EET 2142C Linear Semiconductor Devices 3 cr.
Prerequisite: EET 2124C. This course is an introduction to more advanced linear semiconductor devices and their associated circuitry. It concentrates on integrated circuits and provides a good coverage of operational amplifiers. In addition the course covers in detail Feedback, Frequency Effects, and Voltage Regulation. Four contact hours: two lecture hours, two laboratory hours.

EET 2324C Communications Electronics I 3 cr.
Prerequisite: EET 2119C. 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 electricity and electronics and desires cooperation in Communications Electronics. Four contact hours: three lecture hours; one laboratory hour.

EET 2335C Communications Electronics II 3 cr.
Prerequisite: EET 2324C. This course, a continuation of the two-course sequence in communications electronics, includes the transmission and radiation of signals, transmission lines and antennas, telegraph and video systems, and digital communications systems. Two contact hours; three lecture hours; one laboratory hour.

EET 2940 Biomedical Practicum 3 cr.
Prerequisites: EET 2324C, EET 2112, EET 2335C. This course, designed to provide the student with the essential, electronic troubleshooting and clinical skills necessary to 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, repair and on-the-job training with practicing METs. Eight contact hours: one laboratory hour.

IGN — Engineering: General

IGN 1130C Descriptive Geometry 3 cr.
Prerequisite: IGN 1100. The course consists of theory and practice in solving graphic problems involving points, lines, and space relationships. Four contact hours: two lecture hours; two laboratory hours.

EHD — Education: Hard of Hearing and Deaf

EHD 1400 Introduction to Interpreting (T) 3 cr.
Prerequisites: SPA 1310 and SPA 1317. Designed primarily to improve and develop interpreting skills through instruction and practice, this course will offer students the opportunity to observe actual classroom interpreting, to participate in student interpreting clinics, and to apply skills and refine techniques and practice in interpreting. Three contact hours.

EMS — Emergency Medical Services

EMS 1095 First Responders: Emergency Care Training 3 cr.
Designed specifically 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 1150, as a prerequisite skill. As a part of the course content, this course may not be used as elective by
students entering the A5 Certificate Paramedic program. Three contact hours: two lecture hours; one laboratory hour.

EMS 1119 Fundamentals of Emergency Medical Care 6 cr.
Prerequisites: EMS 1019 or permission of professor. Corequisites: EMS 1119L, APB 2109C. This course is designed to prepare persons for initial employment as an EMT, includes current techniques practiced by a Basic Level EMT, providing emergency medical care. Successful completion of this course and the corequisite EMT 1119L are required to take the State Registry Examination for EMT Level I. Six contact hours.

EMS 1119L Fundamentals of Emergency Medical Care Clinical Experience 2 cr.
Prerequisite: APB 2109C. Corequisite: 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 required for this class. Four contact hours: three clinical hours; one laboratory hour.

EMS 2231 EMT-Paramedic Phase I 6 cr.
Prerequisites: EMS 1119, EMS 1119L, APB 2109C; Corequisites: EMS 2231L, APB 2109C. The first of a three-term sequence of instruction for the EMT Paramedic, includes the following: the EMT, Human Systems and Patient Assessment, Stabilization and Fluid Therapy, Respiratory System and Management of Emotional Crisis. Six contact hours.

EMS 2231L EMT-Paramedic Phase I Lab/Clinical 3 cr.
Prerequisites: EMS 1119, EMS 1119L, APB 2109C; Corequisites: EMS 2231 and APB 2109C. The clinical program consists of a three-term sequence. This clinical segment includes 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 5 cr.
Prerequisites: EMS 2231. EMS 2231L and APB 2109C; Corequisite: 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, and Central Nervous System. Five contact hours.

EMS 2232L EMT-Paramedic Phase II Lab/Clinical 5 cr.
Prerequisites: EMS 2231, EMS 2231L, Corequisite: EMS 2232. 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 2232, EMS 2232L, Corequisite: EMS 2233. The last part of the three-term sequence of EMT-Paramedic instruction includes the following modules: Soft Tissue Injuries, Musculoskeletal System, Medical Emergencies, Obstetric/Gynecologic Emergencies, Extraction/Rescue Techniques, Pediatrics, and Neonate Transport. Four contact hours.

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

ENC — English Composition

ENC 1010 Introduction to Composition (College Preparatory Course) 3 cr.
Prerequisites: Satisfactory score on placement test. This course teaches the fundamentals of effective expression, with emphasis on the 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 competency. Three contact hours.

ENC 1102 English Composition II (T) 3 cr.
Prerequisite: ENC 1101. As a continuation of ENC 1101, this course includes the study and practice in research writing and writing competencies. Three contact hours.

ENC 1132 Introduction to Critical Writing (T) 3 cr.
Prerequisite: ENC 1101. At additional preparation for argumentation and research, this course sharpens the students' critical thinking skills and improves their ability to compose analytical, integrative, and evaluative essays in response to their reading assignments. This course is designed for students who have successfully completed ENC 1101, but seek additional preparation for ENC 1102. Thus, it is advised that successful completion of ENC 1132 should not entail in this course. Three contact hours.

ENC 2090 Essential Skills in Communication 1 cr.
Prerequisite: ENC 1101. This is a communications course giving primary emphasis to writing for the profession. The course places stress on the use of factual information in descriptive, analytical, and research recommendation reports. The course also provides instruction in writing effective and concise letters, memoranda, and informational reports, developing graphs and illustrations, and preparing oral reports. Three contact hours.

ENC 2210 Technical Report Writing (T) 3 cr.
Prerequisite: ENC 1101. This is a communications course giving primary emphasis to writing for the profession. The course places stress on the use of factual information in descriptive, analytical, and research recommendation reports. The course also provides instruction in writing effective and concise letters, memoranda, and informational reports, developing graphs and illustrations, and preparing oral reports. Three contact hours.
ENL 2013 English Literature 1798 (T) 3 cr.
Prerequisite: ENC 1101. This course introduces the major literary traditions from Beowulf through the Romantic and Early Twentieth Century. It provides a study of the major characteristic writings of these periods. Three contact hours.

ENL 2023 English Literature Since 1798 (T) 3 cr.
Prerequisite: ENC 1101. 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.

ENL 0101 ESL Speech - Level I (College Preparatory Course)
Prerequisite: CELT score within the range of 20-30 and writing sample at Level I. Corequisites: ESL 0111, ESL 0141, and ESL 0161. This course teaches the fundamentals of speech for non-native speakers of English. It focuses on improving spoken English for increased intelligibility and also focuses on increasing listening skills for greater understanding of spoken English. The course provides instruction in the production of speech sounds (non-part of the native language), stress, intonation, and rhythm in spoken English. The lesson units serve as a guide to help students use auditory discrimination and articulatory patterns important for understanding and being understood. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours. Three contact hours.

ENL 0121 ESL Reading - Level II (College Preparatory Course)
Prerequisite: CELT score within the range of 20-30 and writing sample at Level I. Corequisites: ESL 0111, ESL 0141, ESL 0161, and ESL 0181. The purpose of the course is to instruct students in techniques for reading sentence and paragraph meaning. Students will learn word meanings in context and will increase their vocabulary. 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 reading passages to help them progress from literal meaning to critical understanding and thinking. Further, it will provide opportunities for oral 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.

ENL 0141 ESL Writing - Level I (College Preparatory Course)
Prerequisite: CELT score within the range of 20-30 and writing sample at Level I. Corequisites: ESL 0111, ESL 0141, ESL 0161, and ESL 0181. The first half of the course will focus on controlled writing practice, beginning at the sentence level. Students will write short narrative based on personal experience. This intensive writing practice serves to help establish a purpose for writing and to give students confidence in their ability to do so. The second half of the course will introduce students to writing as a process. They will practice, individually and in groups, writing short paragraphs that demonstrate their competency in using the process, the format, and the standards of acceptable writing. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours. Three contact hours.

ENL 0161 ESL Structure - Level I (College Preparatory Course)
Prerequisite: CELT score within the range of 20-30 and writing sample at Level I. Corequisites: ESL 0111, ESL 0141, ESL 0161, and ESL 0181. The purpose of the course is to present an organized sequence of the grammar of the English language with a view toward linking the systematic study of the grammar to language use in propositional communication. The students will apply the grammatical points learned to the listening, speaking, and writing activities in the classroom. The course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours. Three contact hours.

ENL 0181 ESL Combined Skills - Level I (College Preparatory Course)
Prerequisite: CELT score in range of 20-30 and writing sample at Level I. Corequisites: ESL 0111, ESL 0141, ESL 0161, and ESL 0181. The purpose of the combined skills course is to focus on the integration of the communication skills taught separately in ESL 0111, ESL 0121, ESL 0141, and ESL 0161. 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. Through these carefully structured tasks, students will systematically analyze and correct student errors in ways to enhance 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 culture and values. This course does not apply toward the associate degree and is part of College Preparatory Studies. Three credit hours. Three contact hours.

ENL 1201 ESL Speech - Level II (T) 3 cr.
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 1241, ESL 1261, and ESL 1281. This course will give students practice in the usage of correct grammar and pronunciation in oral communication. Students will practice 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.

ENL 1221 ESL Reading - Level II (T) 3 cr.
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 1241, ESL 1261, and ESL 1281. This course will give 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 fragments of paragraphs developed. It will include activities which encourage students to further develop their oral and written proficiency in English. Three credit hours. Three contact hours.

ENL 1241 ESL Writing - Level II (T) 3 cr.
Prerequisite: CELT score within the range of 31-50 and writing sample at Level II or successful completion of ESL college prep series. Corequisites:
EPL 1201, ESL 1221, ESL 1241, and ESL 1261. This course gives students practice in writing unified, coherent paragraphs. Students begin writing simple sentences and combining and developing paragraphs. Practice will include spelling and punctuation. Students will then focus on paragraph unity with practice in identifying and writing specific types of paragraph development. Three credit hours, three contact hours.

ESL 1261 ESL Structure - Level III (T) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-50 and writing sample at level II or successful completion of ESL 1251 college-prep series. Corequisite: ESL 1201. This course gives students the opportunity to develop skills in the use of English grammar in basic patterns involving interrogative, declarative and exclamatory sentences. Students will recognize, edit, and correct errors in syntax and usage. Activities will involve oral and written exercises in diverse transformation, communicative interaction, controlled responses and dictation. Three credit hours, three contact hours.

ESL 1281 ESL Combined Skills - Level II (T) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-50 and writing sample at level II or successful completion of ESL 1251 college-prep series. Corequisite: ESL 1201, ESL 1221, ESL 1241, and ESL 1261. The purpose of the combined skills course is to focus on the integration of the communicative 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. Through their carefully structured tasks, the teacher will systematically analyze and correct specific 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 culture as well as the understanding of American values and customs. Three credit hours, three contact hours.

ESL 1301 ESL Speech - Level III (T) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-70 and writing sample at level III or successful completion of ESL 1250 college-prep series. Corequisite: ESL 1301, ESL 1311, ESL 1321, and ESL 1341. This course stresses the practice of the principles and techniques involved in oral and written communications. Students focus on purposeful and organized listening and speaking skills. Three credit hours, three contact hours.

ESL 1321 ESL Reading - Level III (T) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-70 and writing sample at level III or successful completion of ESL 1250 college-prep series. Corequisite: ESL 1301, ESL 1311, ESL 1321, and ESL 1341. Students learn oral reading 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 include the students in comprehension techniques but also make them acutely aware of the many aspects of American culture. Various library exercises will introduce the students to the campus library and teach them how to use the resources. Three credit hours, three contact hours.

EPL 1341 ESL Writing - Level III (T) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-70 and writing sample at level III or successful completion of ESL 1250 college-prep series. Corequisite: ESL 1301, ESL 1321, ESL 1341, and ESL 1381. This course introduces the various paragraph types. Students complete original paragraphs of narration, description, argumentation, and exposition utilizing their own vocabulary and main ideas, 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) 3 cr.
Pre-requisite: CLEF score within the range of 5.1-70 and writing sample at level III or successful completion of ESL 1251 college-prep series. Corequisite: ESL 1301, ESL 1321, ESL 1341, and ESL 1381. 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 translations of complex English structure patterns. Three credit hours, three contact hours.

EST — Electronic Specialty Courses

EST 1412 Biomedical Technology and Techniques 2 cr.
Pre-requisite: EST 1121. This course is designed to introduce students to the hospital, biomedical equipment manufacturers, and the contract maintenance organizations. Emphasis will be placed on the organizational structure of the hospital and the role of the BMT within this framework. The course is also intended for students to be trained in professional judgmental thinking abilities in the field of biotechnology. Students will be introduced to the campus library and teach them how to use the resources. Three credit hours, three contact hours.

EST 2112 Electrical/Electronic Control Systems 3 cr.
Pre-requisite: EST 1121. The course introduces the study of the operation and control of industrial equipment and processes using motors and the control systems involved in their operation and protection. Four contact hours, two lecture hours, two laboratory hours.

EST 2446C Biomedical Instrumentation I (T) 3 cr.
Pre-requisite: CET 2112. This course introduces students to the biomedical environment and presents the operation of equipment and monitoring systems that are used in hospitals and clinics. Students will learn basic principles and operation of equipment as well as the general anatomy and physiology. Students will utilize 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 1433C Biomedical Instrumentation II 3 cr.
Prerequisite: EST 2432C. This course, a continuation of the study of biomedical instrumentation, introduces students to the remaining biomedical equipment of significance typically utilized in the health care setting, i.e., in the operating room, the labor and delivery room, pathology, nuclear medicine, radiation therapy and clinical laboratory. Students will learn external operation 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.

HST 2603C Robotics (T) 3 cr.
Prerequisite: CET 2194C, EST 2112, ETG 2504C, EPM 2310. 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 student to install and maintain robots and other related automated industrial equipment. Hands-on exercises with manipulators in the area of assembly, troubleshooting, and programming are required for each student. Four contact hours; three lecture hours; one laboratory hour.

ETC — Engineering Technology: Civil

ETC 2222C Soils and Foundations 3 cr.
Prerequisite: ETC 2531C. This course covers the criteria used in the selection, design, and construction of the elements of structure that transfers the total load to the underlying formations. Theoretical aspects covered include the analysis of soil conditions, bearing capacity and settlement analysis, classification 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.
Prerequisite: ARC 2120C. This course is a study of the requirements and construction 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 2530C Concrete (T) 3 cr.
Prerequisite: ETC 1421C. This 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 mixes, use of admixtures, placement, special types of concrete, and the field-laboratory processes used to achieve quality control. The course consists of lectures and laboratory. Four contact hours; two lecture hours; two laboratory hours.

ETC 2590C Highway Drafting and Route Design (T) 3 cr.
Prerequisite: ETC 2410C. This course is concerned with the elements of transportation roadway and their functions, the effects of traffic and functions, the effects of traffic and vehicular characteristics on road design, lengths of highway, curvature and elevation of roadbeds, and earthwork computations applied to highway route design. Four contact hours; two lecture hours; two laboratory hours.

ETC 2511C Hydrology and Hydraulics 3 cr.
Prerequisite: ETC 2531C. This course is a study of surface, subsurface, drainage areas, sanitary waste flow and pump stations. 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 laboratory tests for fluid flow calculation and design. Four contact hours; three lecture hours; one laboratory hour.

ETC — Engineering Technology: Drafting

ETD 1100 Engineering Drawing 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
Prerequisite: ETD 1100. Suggested Corequisite: EGN 1110C. 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 2545 Civil Drafting
Prerequisite: ETD 2100. This course prepares the student for the fundamental concepts of civil drafting as it pertains to the field of civil engineering. Using surveyed 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 terminologies current in civil engineering offices. Four contact hours; two lecture hours; two laboratory hours.

ETG — Engineering Technology: General

ETG 1201C X-Ray Physics
Prerequisites: MAC 1104 and HST 1025C. This course includes coverage of the fundamentals of physics required in X-ray physics and 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, reading films, special radiographic methods, and the use of X-ray equipment in various fields. Four contact hours; three lecture hours; one laboratory hour.

ETG 1202C X-Ray Systems
Prerequisite: ETG 1201C. The course is concerned with the practical application of the principles learned in the laboratory when an X-Ray Unit Trainer (XUT) is used to train technicians in diagnostic and therapeutic X-ray machine, technique, and patient care. Four contact hours; three lecture hours; three laboratory hours.
ETG 2204C X-Ray Practice 3 cr.
Prerequisite: ETG 2202C. This course provides the student with practical experience in the field of X-ray equipment testing, maintenance, and servicing. It includes the installation of X-ray equipment, testing and servicing, and the calibration of medical diagnostic X-ray machines.
Six contact hours: one lecture hour, five laboratory hours.

ETG 2205C X-Ray Imaging Systems 3 cr.
Prerequisite: ETG 2205C. The course emphasizes the practical application of principles in laboratory experience and actual X-ray imaging systems. X-ray image intensifiers and high-voltage television units will be used in the laboratory on experience in proper installation, adjustment, quality control, troubleshooting, and repair techniques. The student will analyze schematic diagrams of equipment and circuits to give practical experience in interpreting medical information with the actual equipment in use. Six contact hours: three lecture hours, three laboratory hours.

ETG 2304C Engineering Mechanics 4 cr.
Prerequisites: MAC 1114, ETI 1121C. This course is an introduction to the basic laws of mechanics and includes a study of statics and dynamics. The course covers equilibrium and kinematics in two dimensions, friction, work, and energy. The laboratory portion of the course will emphasize the practical aspects of the laboratory techniques and include exercises in measurements, drive systems, force analysis, and laboratory tools.
Five contact hours: three lecture hours, two laboratory hours.

ETG 2505C Testing and Strength of Materials 4 cr.
Prerequisite: ETG 2505C. The course is a study of the basic concepts involved in determining the resistance of engineering materials to various loads with emphasis on the nature of stresses, strain, and deformation. The laboratory portion of the course involves actual testing of materials with stress testing equipment. Five contact hours: three lecture hours, two laboratory hours.

ETJ — Engineering Technology: Mechanical

ETJ 1121 Introduction to Nondestructive Testing 1 cr.
This course reviews the basic principles underlying nondestructive testing. The course is designed to stimulate interest in the field of nondestructive testing. Course content includes topics such as magnetic particle testing, ultrasonic testing, and visual examination. Six contact hours: three lecture hours, one laboratory hour.

ETM 1100 Air Conditioning Fundamentals 3 cr.
Prerequisite: MAC 1114. The course covers the basic principles of air conditioning technology, including heating, ventilation, and air conditioning systems. Three contact hours.

ETM 1700 Industrial Safety 3 cr.
This course covers the material essential to safe practices in industry. It includes the selection of appropriate equipment and the consideration of safety regulations. Three contact hours.

ETM 2120 Air Conditioning and Refrigeration Equipment 3 cr.
Prerequisite: ETM 1700. The course covers the design and selection of equipment and components for air conditioning systems. Three contact hours.

ETM 2125 Ventilation 3 cr.
Prerequisite: ETM 1700. This course covers the design and selection of ventilation systems and the consideration of safety regulations. Three contact hours.
design, as well as ventilation design practices as an integral part of air conditioning systems design. Three contact hours.

ETM 1730 Air Distribution 3 cr.
Prerequisites: ETM 1700, ETM 1710, ETM 1720, Corequisite: ETM 1725. The course deals with air flow theory and practice as applied to residential and commercial air distribution systems. Duct design, fans and blowers, pressure analysis, and room air distribution are included. Three contact hours.

ETM 1740 Air Conditioning Control Systems 3 cr.
Prerequisites: ETM 1730, ETM 1740, ETM 1720, Corequisite: ETM 1725. The course covers the theory, operation, and design of control systems used in refrigeration and air conditioning. The course includes a study of control fundamentals, electronic and electronic controls, pneumatic controls, direct digital controls, and control systems design for residential and commercial installations. Three contact hours.

ETM 2221 Elements of Applied Energy 3 cr.
Prerequisites: MTH 1227, ETM 1720. This introductory course in applied thermodynamics consists of the study of the transformation of energy as useful work through mechanical elements, heat engines, refrigerators, compressors, turbines, and auxiliary equipment. Three contact hours.

ETM 2310C Fluid Mechanics I 3 cr.
Prerequisites: MAC 1114, ETM 1710. This introductory course in fluid mechanics consists of the study of the flow of fluids and their application in the processes, equipment, and machines that are used in the energy-to-work transformation. The course emphasizes both hydrodynamics and hydraulics and the laboratory exercises concentrate on fluid flows. Four contact hours: three lecture hours; one laboratory hour.

ETM 2410C Air Conditioning and Heating 3 cr.
Prerequisites: MAC 1114 and ETM 1720. This introductory course in environmental control of buildings and houses emphasizes equipment performance and system design. Three contact hours.

ETM 2750C Air Conditioning Systems Design I 3 cr.
Prerequisites: ETM 1740, ETM 1740. The course deals with system selection and design to meet the heating, cooling, humidity control, and ventilation requirements of residential and commercial buildings. The course includes preparation of engineering drawings by the student. This is the first course in a series of two courses dealing with systems design. Four contact hours: two lecture hours; two laboratory hours.

ETM 2752C Air Conditioning Systems Design II 3 cr.
Prerequisite: ETM 2750C. This course is a continuation of ETM 2750C and deals with the design of large central air conditioning systems. Students develop an understanding of the design process through design analysis, calculations, equipment selection, preparation of engineering drawings, and preparation of cost estimates. Four contact hours: two lecture hours; two laboratory hours.

ETM 2775 Air Conditioning Estimating 3 cr.
Prerequisites: ETM 1720, ETM 1730, ETM 1740. The course covers current practices and procedures used in estimating in air conditioning and heating systems. Quantity survey methods, classification of work, cost estimating, and preparation of bid proposals are included in the course of study. Three contact hours.

ETM 2780C Heating, Ventilating, and Air Conditioning Systems (HVAC) 3 cr.
Prerequisites: ETM 1720. Corequisite: ETM 2752C. The course deals with the application of HVAC systems in heating, ventilating, and air conditioning design and other building-mechanical applications. Four contact hours: two lecture hours; two laboratory hours.

EIH — European History

EIH 1000 Western Civilization through 1715 (3) 3 cr.
This course consists of a survey of the conditions and beginnings of civilization and the development and accumulation of culture through 1715, Ancient Egypt, Mesopotamia, Greece, Rome, Byzantium, Islam, the Medieval Period, the Renaissance, and the Protestant Reformation. Three contact hours.

EIH 1001 Western Civilization from 1715 to the Present (3) 3 cr.
This course is a modern survey of western civilizations from 1715 to the present day. The course examines the developments in the European empire, the Enlightenment, the era of revolutions, the conditions of the United States, the development of democracy, the industrial revolution, nationalism, the world wars, and the cold war. The course includes reading and writing assignments. Three contact hours.

FAD — Family Development

FAD 1230 Dynamics of Modern Living (3) 3 cr.
This course covers the interpersonal relationship of personal and family problems, analysis of the basic elements involved in courtship, mate selection, courtship, marriage, parenthood, and child development. It also covers topics such as principles of good manners and acceptable standards of social behavior, personal appearance, social customs, personality development, human relations, and consideration of the various occupational opportunities within the broad field of work and family life education. Three contact hours.

FPP — Fire Fighting and Protection

FPP 1000 Fire Protection Principles 3 cr.
This course is a study of the organizational and functional background of fire protection services. The role and responsibilities of the fire service; the organization and function of federal, state, county, and private fire protection agencies; the responsibilities of the fire service to the community; the problems of the fire service; and an overview of the fire protection career opportunities. Three contact hours.
FPP 1205 Fundamentals of Fire Prevention 3 cr.
The 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 reporting; recognition and elimination of fire hazards; the problems of public relations; and the cooperation with other governmental agencies. Three contact hours.

FPP 2240 Fire Investigation 3 cr.
This course presents the principles of fire investigation: methods of determining area of origin, fire cause, and fire spread; location and preservation of evidence; interviewing of witnesses; scene direction; scene notes; case preparation and court procedures; and expert testimony. Three contact hours.

FPP 2510 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 Marshal; the principles and practices used in building construction. Three contact hours.

FPP 2460 Firefighting Tactics and Strategy 3 cr.
This course covers the basic concepts involved in firefighting, including fire behavior, line-up, attack principles, utilization of available manpower and equipment, and preplanning for problems. Emphasis will be on developing thinking skills in relation to cases. Three contact hours.

FPP 2500 Hazardous Materials I 3 cr.
This course presents the basic fundamentals of chemistry used in fire science: types of chemicals and processes and their roles in federal, state, and local levels pertaining to use, storage, and transportation of chemicals. Also, topics covered include hazards of radioactive, flammable and explosive materials, and laboratory demonstration of incompatibilities. Three contact hours.

FPP 2524 Hazardous Materials II 3 cr.
Prerequisite: FPP 2500. This course is a continuation of FPP 2500 and subdivided into two sections. The first section deals with why material explodes, why they are unstable, and how they react with water, air, and each other. The second section explores toxicity. Three contact hours.

FPP 2660 Fire Fighting Equipment and Apparatus 3 cr.
This course covers the principles of pumping, construction and operation of pumps and fire hose, pumping accessories, driving and pumping practices, principles and operation of aerial ladders, hydrants, systems, water supply, and control. The course also includes the principles of the basic, maintenance, and operation of fire department vehicles. Subsequent coverage includes theory; internal combustion engines, power production and transmission, torque, and horsepower, electrical and hydraulic systems, air conditioning, engine tune-up, and troubleshooting, characteristics of fuels and lubricants, and other related principles of automotive vehicles. Three contact hours.

FPP 2660 Rescue Practices 3 cr.
This course includes instruction in life-saving practices pertaining to the fire company and training for rescue equipment. The course also covers the fire department's role in civil defense and other disaster acts, chemical and biological agents that affect breathing, law on first aid, and the use of breathing apparatus. Three contact hours.

FIL — Film

FIL 1000 The Movies as Art 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of the development of the motion picture as a universal art form, its historical and international background, and the subject selection and script development, technological equipment and innovations, elements of visual composition, sound and music, acting and directing, and film criticism and analysis. Three contact hours.

FIN — Finance

FIN 2000 Principles of Finance 3 cr.
Prerequisites: GST 1321, ACC 1005 or ACC 2001, or consent of instructor. This course consists of the study of investment characteristics of stocks and bonds, securities market, introduction to securities analysis, commercial banks, and the federal reserve system. Instalment, installment, and the money supply. History and nature of money and financial management. Three contact hours.

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

FOS — Food Science

FOS 1201 Sanitation and Safety 3 cr.
The student will explore the scientific rationale for sanitation and safety practices which are enforced for food protection in institutions and food service facilities. The student will identify the processes of foodborne illnesses and demonstrate preventive techniques by adhering to sanitation standards. The course places emphasis on the preparation of food in the kitchen. Three contact hours.

FRE — French Language

FRE 1000 Conversational French 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 at 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 1191 Beginning French II (T)  3 cr.
Prerequisite: FRE 1100, or equivalent study. 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 1100, or equivalent study. This course includes reading from modern and classic French literature, 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 1004 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 standardizing, grading and estimating, ordering, receiving, and storing foods and beverages, as well as the practical application in writing 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: three lecture hours; two laboratory hours.

FSS 1212C Quantity Food Production  4 cr.
Prerequisite: FSS 1202C. The student will acquire the principles of quantity food production and service for collective, restaurants, and institutions. The course will emphasize equipment used and care, standardization recipes, portion control, work plans, and schedules. Five contact hours: two lecture hours; two 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 standard 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 Gourmet-Meal Planning  3 cr.
The student will acquire knowledge and demonstrate skills in the application of special gourmet-meal techniques used in the restaurant and hotel industry. The course will develop creativity in the proper use of foods to produce dinner and dessert plates and 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, dining rooms, banquet rooms, and buffets. The course will demonstrate the relationships of service, equipment, supplies, merchandising, and personnel to create good patron acceptance. Three contact hours.

FSS 1251 Restaurant Operation  3 cr.
The course includes the basic principles of decision making, food management, personnel management, personnel management, sanitation and safety. Ten contact hours: one lecture hour; nine field hours.

FSS 1301 Management Clinical Practice I  3 cr.
Prerequisite: FSS 1250. The course consists of 12 supervised field experiences in which the student will work 40 hours per work week. The course is designed to provide the student with practical experience in the skills necessary for entry-level food service positions. Three contact hours.

FSS 1302 Management Clinical Practice II  3 cr.
Prerequisite: FSS 1301. This course consists of 12 supervised field experiences in which the student will work 40 hours per week. The course is designed to provide the student with practical experience in the skills necessary for entry-level food service positions. Three contact hours.

FSS 1410 Food Service Equipment/Facility Planning  3 cr.
The student will evaluate the various types of food service equipment related to cold, structure, function, and maintenance. The student will design a layout for a food service operation, which includes equipment specifications, energy conservation measures, diversity of function, cost control, and consideration toward future adaptability. Three contact hours.

FSS 2200 Supervision and Personnel Management  3 cr.
The student will develop and demonstrate skills necessary to the managerial procedures and practices of a food service operation. The course is designed to provide the student with practical experience in the skills necessary for entry-level food service positions. Three contact hours.

FSS 2201 Food Service Delivery Systems  3 cr.
The student will explore food service delivery systems in the various types of
health care facilities and health care 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 employee clinics, and neighborhood health centers. Three contact hours.

FSS 2302 Management Clinical Practice III 4 cr.
Prerequisite: FSS 1106. This course, a continuation of FSS 1106, consists of 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; lecture hour; twelve field hours.

FSS 2501 Food and Beverage Control 3 cr.
The course presents the basic principles and procedures of effective food and beverage cost control, including food and beverage purchases, receiving, issuing, calculation of standards, production, and planning special control. Three contact hours.

FSS 2941 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 work experience. The internship training program requires a minimum of twelve weeks for a total of 450 hours. Thirty-eight contact hours: one lecture hour; thirty-seven field hours.

GEO — Geography: Regional Areas

G:IA 1000 World Geography (T) 3 cr.
This introductory course deals with human beings’ 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.

GEB — General Business

GEB 1011 Introduction to Business (T) 3 cr.
The course is an introduction to business systems and procedures. The orderly presentation of the subject matter provides the student with the framework for further study in the field or the background for practical application in business and industry. Three contact hours.

GEO — Geography: Systematic

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

GER 1030 Conversational German (T) 3 cr.
The 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).

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 supervised 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.

GER 2200 Intermediate German (T) 3 cr.
This course is a thorough review of the principles of grammar. This review will be integrated with compositions and conversation planned to develop a basic active vocabulary and facility in communicating in written and spoken German. Four contact hours: three lecture hours; one laboratory hour.

GLY — Geology

GLY 1001 Earth and Space Science (T) 3 cr.
This course acquaints the student with the development of science, with the integrating principles and theories in the earth sciences, with the practice of the scientific method, and with a useful knowledge of selected areas of geology, astronomy, and meteorology. Presentation is by lectures, discussions, 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 1024 prior to enrolling in this course. Physical Geology, for majors and non-majors, is the study of the earth. The course covers structure and land forms, deposits and processes, characteristic rocks and minerals, and a brief study of the surrounding atmosphere and the world as a whole. Three contact hours.

GRA — Graphic Arts

GRA 1100 Theory of Printing Processes (T) 5 cr.
Prerequisite: GRA 1302L. This lecture course, designed to give an introduction to major processes of the printing industry, includes all methods of typesetting, proofreading, and other machine methods of typesetting, mechanical art preparation, printer's craft and proofreading. Five contact hours.

GRA 1504, Printing Processes—Laboratory 4 cr.
Prerequisite: GRA 1500. This laboratory course, designed to be an introduction to and experience in the basic skills of three of the major processes of the printing industry, emphasis on cold type and photocomposing and mechanical art preparation. Also introduced are typesetting and form makeup (hand and machine), layout and letterpress operations. Eight contact hours (theory/laboratory).
GRA 1503 Theory of Lithographic Processes 5 cr.
Corequisite: GRA 1501. This lecture course, designed to give an introduction to the major processes of the lithographic industry, includes process camera operation, negative stripping and plate-making, and offset press operation. Five contact hours.

GRA 1504J Lithographic Processes Laboratory 4 cr.
Corequisite: GRA 1501. This laboratory course designed to give an introduction to and experience in the basic skills of three major processes of the lithographic industry, includes process camera operation, negative stripping and plate-making, other press operations, and related bindery functions. Eight contact hours (theory/laboratory).

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

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

GRA 2532L Hand and Machine Composition and Form Makeup 3 cr.
This course teaches the basic technique of setting type by hand and by Linotype machine, form makeup utilizing metal cutting devices, along with pulling reproduction proofs for offset printing. Six contact hours (theory/laboratory).

GRA 2533L Advanced Hand and Machine Composition and Form Makeup 5 cr.
Prerequisite: GRA 2532L. This advanced laboratory course provides for skill development in the technique of setting type by hand and by Linotype machine, form makeup utilizing metal cutting devices, and pulling reproduction proofs for offset printing. The course emphasizes the application of basic techniques toward greater job complexity, increased quality, and increased productivity. Ten contact hours (theory/laboratory).

GRA 2537L Cold Type Typesetting and Pasteup 3 cr.
Prerequisite: GRA 1504L; Corequisites: GRA 1540L. This course teaches the basic techniques of setting type by strike-up and photocomposing typesetting equipment, and also the preparation of mechanical art forms. The course also includes proofing and machine forms. Six contact hours (theory/laboratory).

GRA 2538L Advanced Cold Typesetting and Pasteup 5 cr.
Prerequisite: GRA 2537L. This advanced course provides for skill development in the techniques of setting type by strike-up and photocomposing 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. Ten contact hours (theory/laboratory).

GRA 2571L Camera Operation and Film Processing 5 cr.
Prerequisite: GRA 1504L. This course provides the technique of operating the process camera for the reproduction of line and halftone copy negatives, contact printing, preparation of darkroom chemicals, and developing graphic art films and papers. Six contact hours (theory/laboratory).

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

GRA 2601L Negative Stripping and Offset Plate Making 3 cr.
Prerequisite: GRA 2571L. This course teaches the basic techniques for stripping offset negatives and positives for correct press position, separating for color, and exposing and developing offset press plates. Six contact hours (theory/laboratory).

GRA 2602L Advanced Negative Stripping and Offset Plate Making 5 cr.
Prerequisite: GRA 2601L. This advanced course provides for skill development in the technique of stripping offset negatives and positives for correct press position, separating for color, and exposing and developing offset press plates. Ten contact hours (theory/laboratory).

GRA 2608L Letterpress Operation and Lockup 3 cr.
This laboratory course teaches the basic techniques of setting up and operating both hand-loc and automatic letterpress presses. Six contact hours (theory/laboratory).

GRA 2612L Advanced Letterpress Operation and Lockup 5 cr.
This advanced laboratory course provides for skill development in the technique of setting up and operating both hand-loc and automatic letterpress presses. This course emphasizes the application of basic techniques toward greater job complexity, increased quality, and increased productivity. Ten contact hours (theory/laboratory).

GRA 2635L Offset Press Operation 3 cr.
Prerequisite: GRA 1504L. This course teaches the basic technique of setting up, operating, and maintaining duplicators and offset printers in the 10 x 15, 11 x 17, and 14 x 20 inch ranges. Six contact hours (theory/laboratory).

GRA 2638L Advanced Offset Press Operation 5 cr.
Prerequisite: GRA 2635L. This advanced laboratory course provides for skill development in the technique of setting up and operating, and maintaining duplicators and offset presses in the 10 x 15, 11 x 17 and 14 x 20 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. Communication 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. The 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)

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. Communication 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. The 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)

HFT — Hotel and Restaurant

HFT 1000 Introduction to Hospitality Management (T) 3 cr.
This course introduces the student to the hospitality industry and to 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 1250 Hotel/Motel Operation (T) 3 cr.
This course acquaints the student with the operation of a hotel or motel in include front office procedures in registration, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, labor and supplies, maintenance and engineering of a practical nature, facilities and equipment, 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 of contracts, maintenance, purchasing, insurance, accounting records, selection of personnel and equipment, public and human relations and recreational aspects. Three contact hours.

HFT 1410 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 properly the front office of a hotel/motel. The course also requires the student with the operation of all the departments as they apply to the student's primary responsibility of selling rooms and serving guests. Three contact hours.
HHD — Housing and Home Design

HHD 1122 Housing Alternatives 3 cr.
This course includes a study of various housing and furnishing methods for the home. The course will introduce students to the design and planning of a residential home. There will be an emphasis on the use of color principles and elements of design.

HHD 1232C Functions and Psychology of Space 3 cr.
Prerequisite: HHD 1122. This course analyzes social, private and work spaces for psychological use of space, efficiency of traffic patterns, and effectiveness of design. The student will develop a floor plan based upon the requirements for the space and the space used. The course will also explore the multiple background considerations 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 includes a research project on interior design and application of the elements — color, line, texture, pattern, shape, 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 hours; two lecture hours; two laboratory hours.

HHD 1450C Construction of Window Treatments and Draperies 3 cr.
This course includes an in-depth study of the construction of window treatments and draperies. The course will also be an introduction to the interior design of window treatments and draperies. The course will also be an introduction to the interior design of window treatments and draperies. The course will also be an introduction to the interior design of window treatments and draperies.

HHD 1352 Window Treatment Design 3 cr.
The course includes a study of window treatments and draperies for various types of windows. The course places special emphasis on energy savings in relation to window types, fabric selection, and treatment choices. The course also incorporates information on the selection and installation of window treatment hardware and tools for each treatment. Three contact hours.

HHD 1355C Home Accessories Construction 5 cr.
The course is designed to acquaint the student with the construction of home accessories. The course will also be an introduction to the construction of home accessories.

HHD 1426 Materials and Sources 3 cr.
The course is a study of the materials of interior design and sources of each. Topics include textiles, floor coverings, paint, wallpaper, and accessories. The course places special emphasis on the selection and installation of interior design materials.

HHD 1450C Fundamentals of Restoration and Preservation 3 cr.
This course is designed to give the student a better understanding of the techniques and skills required to preserve existing residential and commercial buildings. The course includes an introduction to the history of residential and commercial buildings and the techniques used to preserve them.

HHD 1452 Home Maintenance and Repair 3 cr.
The course is designed to give the student a better understanding of the techniques and skills required to maintain and repair residential and commercial buildings. The course includes an introduction to the history of residential and commercial buildings and the techniques used to maintain and repair them.

HHD 1510C Introduction to Upholstery 3 cr.
The course includes an introduction to the history of upholstery and the techniques used to create upholstered furniture. The course also includes an introduction to the history of upholstery and the techniques used to create upholstered furniture.

HHD 1511C Advanced Upholstery 3 cr.
The course is designed to enhance the student's skills in the field of upholstery. The course includes an introduction to the history of upholstery and the techniques used to create upholstered furniture.

HHD 1511 History of Interiors I (T) 3 cr.
The student will acquire the ability to identify furniture styles, architectural details, and ornamentation methods from the time of our prehistoric beginnings through the Renaissance period. Three contact hours.

HHD 1518 History of Interiors II (T) 3 cr.
Prerequisite: HHD 1511. The student will acquire the ability to identify furniture styles, architectural details, and ornamentation methods from the Renaissance period through the 19th century. Three contact hours.

HHD 2234C Residential and Commercial Design 3 cr.
Prerequisite: HHD 1232C. This laboratory course is designed to provide skill development in the planning and design of residential and commercial interiors from blueprint to final assembly of all furnishings. A study of commercial furnishings, fabrics, building codes and their regulations is emphasized. Working drawings, specifications, and competency in budgeting will also be synthesized. Four contact hours; two lecture hours; two laboratory hours.

HHD 223A Why Preservation? 3 cr.
The course is designed to give the student a better understanding of the techniques and skills required to preserve existing residential and commercial buildings. The course also includes an introduction to the history of residential and commercial buildings and the techniques used to preserve them.
a special emphasis on the development of the community, historically, socially and architecturally as well as the trends in design, climate, transportation and commercialization. Three contact hours.

HHD 2323C Perspective Rendering — Housing

This course places emphasis on planning and executing renderings, and the techniques of one and two point linear perspective as they apply to interior space and its furnishings. In this introductory course, the student will develop skills in graphically conveying design concepts into visual illustrations. Four contact hours; two lecture hours; two laboratory hours.

HHD 2324C Graphic Presentation Techniques

Prerequisite: HHD 2322C. Professionalism of graphic illustration is the focus of this course. Various media for graphic interior design presentations will be explored, such as, pencil, pen, ink, and watercolor renderings. Students will present projects which synthesize visualizing techniques in rendering and presenting collage. Four contact hours; two lecture hours; two laboratory hours.

HHD 2600 Architectural Styles: Exteriors and Interiors

This course includes a comparative analysis of home architectural interiors and exteriors based on a number of home design concepts recognized in home construction. The student will also include a study of antique, reproduction and modern interiors with emphasis on consequences of present and future preservation of the structures studied. Three contact hours.

HHD 2810 Marketing Techniques for the Interior Designer

Prerequisite: HHD 1227 and HHD 1232C. Utilization of marketing techniques in selling interior design materials is the focus of this course. To provide consulting information to the client, the student will plan and execute marketing strategies utilizing visual aids and display areas. Three contact hours.

HHD 2915 Practicum in Economic Revitalization of Homes and Business Dwellings

This course requires a minimum of 20 hours per week of practical work experience approved by the student advisor. The student will attend the job site in the housing preservation, restoration or construction under the supervision of qualified individuals within the business community. Twenty contact hours; one lecture hour, fourteen field hours.

HHD 2945 Interior Design Internship Seminar

Prerequisite: Approval of program director. After completion of professional courses, 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 this work experience. The internship training program requires 15 weeks for a total of 450 hours. A two-hour classroom seminar will be held bi-monthly on campus.凡contact hours in this course requires permission of the program director. Twenty-one contact hours; one lecture hour, twenty field hours.

HIS — General History

HIS 2307 Homes Survey of History (T)

Prerequisites: No Prerequisites. This independent study is in one or more selected fields of history in corporate, extensive research and in-depth readings as well as developing interest and skill in the development of historical appreciation and presentation in anticipation of further studies at the graduate college level in history or related fields. Three contact hours.

HLP — Health, Leisure, and Physical Education

HLP 1081 Health Analysis and Improvement (T)

Recommended prerequisites: At least 24 credit hours of physical education courses, including one course in Kinesiology and at least one course in Health Science. This course is designed to introduce the principles of exercise, nutrition, and fitness as they relate to the optimal health and the lifelong process of wellness. It involves lectures, assessments of student's current health status, an individualized training program, a self-assessment diet analysis, and an introduction to aerobic activities designed to improve the components of physical fitness. It is recommended and in some cases required that the student obtain medical approval prior to participation in the course. Two contact hours.

HME — Home Management and Equipment

HME 1200 Home Management

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 family income. The course presents a decision-making orientation to sharpen problem-solving skills in managing home and physical resources. Three contact hours.

HSC — Health Science

HSC 1100 Personal and Community Health (T)

This course is a study of health-related problems which are of major importance to our society, with emphasis on the study and examination of drugs, tobacco, alcohol, sex, and general principles involved in our present understanding of health-related areas. Three contact hours.

HSC 1531 Medical Terminology for Health Professional (T)

This course is designed to provide a basic understanding of medical terminology to students entering the health field. This course will cover word-formation analysis of the terminology for the various body systems as well as basic terminology for anatomy, microbiology, surgery, psychiatry, and aging specialties. Two contact hours.

HSC 2200 Standard First Aid and Personal Safety (T)

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 host. 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 their culture. The student will gain an understanding and appreciation of great and vital 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 contains reading and writing competencies. 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 host. 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 their culture. The student will gain an understanding and appreciation of great and vital 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 1470 Intercultural Studies 1 cr.
This course is a survey of contemporary topics related to a specific culture. The course may be repeated for credit when the cultural setting is changed. One contact hour.

HUM 2020 Humanities Forum 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. A general introduction to Western Humanities emphasizing the study of values as expressed in the philosophies and arts of particular historical epochs of the cultures of Northern Europe. The epochs studied may vary from year to year. Three contact hours.

HUM 2211 Humanities: The Foundations (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of a study of life and creative expression in the cultures in early agriculture, the cultures of ancient Greece and Rome, and of the Renaissance in Europe. The course provides a broad base for study of all humanities courses and includes reading and writing competencies. Three contact hours.

HUM 2236 Humanities: Maimstrokes 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 expression in Europe from the Middle Ages to the 20th Century as surveyed through the works of great artists, writers, philosophers, and social history. The course includes reading and writing competencies. 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 consists of the study of life and creative expression in the cultures of Europe in its relationship with the cultures of other world regions, the impact of science and technology on cultural values, and the history of the development of the arts and literature from the beginning of the 20th Century to the present. The course includes reading and writing competencies. Three contact hours.

HUM 2410 Humanities of Asia (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course surveys Asian cultures and their creative expressions through the study of visual arts, music, literature, philosophy, and social history. The course includes reading and writing competencies. Three contact hours.

HUM 2450 Humanities in the Americas (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of life and creative expression in the Americas as surveyed through the study of visual arts, music, literature, philosophy, and social history. The course includes reading and writing competencies. Three contact hours.

HUM 2472 Intercultural Explorations (T) 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, literature, and social history. The course includes reading and writing competencies. A student may repeat this course for credit three times when cultural setting is changed. However, it can satisfy only three hours in Category B of the General Education Requirement. Additional courses, if taken, must stand as electives only. Particular cultural settings are chosen by the humanities division. As follows: HUMA 2421, Greece; HUMA 2422, China; HUMA 2422, Middle East; HUMA 2422, Japan; HUMA 2422, France; HUMA 2422, Latin America; HUMA 2422, Soviet Union; HUMA 2422, 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 skills 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 all life cycles. Three contact hours.

HUM 2298 Weight Management Through Nutrition and Fitness (T) 3 cr.
This course is designed for students to acquire basic principles of nutrition, behavioral analysis and exercises, and apply them to the maintenance and implementation of a weight management plan. Three contact hours.
IDS — Interdisciplinary Studies

IDS 1935 Interdisciplinary Studies Seminar (T) 3 cr.
This course provides an 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 1505 Industrial Survival Procedures 3 cr.
This course teaches basic fundamentals of first aid, the prevention and methods of handling first aid until professional first aiders or disaster personnel arrive. The course includes methods to be implemented with minor or major accidents or illness. Evacuation procedures, property protection methods, fire explosion handling procedures. The course places special emphasis on methods of orderly 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 the international political system with emphasis on the conduct of nations among and with respect to national status. The course examines the function and role of international organizations. Three contact hours.

JSC — Interdisciplinary Science - Natural

JSC 1021 Fundamentals of Natural Science (T) 3 cr.
This course is designed to allow students to study processes of science, concepts of science, natural phenomena, and current problem areas, consisting of selected topics studied in terms of their relationship and significance to the various science disciplines. This course is not designed as an introductory or preparatory course for any specific science. Three contact hours.

ISS — Interdisciplinary Social Sciences

ISS 1120 Origins of American Society (Economic, Political and International Institutions) (T) 3 cr.
This course is an examination of American political institutions, American economic institutions, and America’s leadership in the world. This course includes a study of the United States Constitution. The course includes reading and writing components. 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 Italian 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 Laboratory on 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)

JPN — Japanese Language

JPN 1000 Conversational Japanese (T) 3 cr.
This course concentrates on the development of oral and conversational skills in the Japanese 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)

LAH — Latin American History

LAH 2000 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.

LIS — Library Sciences

LIS 2001 Use of Books and Libraries (T) 1 cr.
The course includes organization of the FCCJ Library, an introduction to the library’s classification system, how to access card catalog, periodical indexes and other basic indexes and suggestions for reading. 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 the library facilities at FCCJ, universities, and public libraries. Three contact hours (lecture/activity).

LIT — Literature

LIT 2000 Introduction to Literature (T) 3 cr.
Prerequisite: ENG 1101. This course emphasizes reading selections for understanding and appreciation. The course considers the major literary forms and their distinctive characteristics and conventions, principle literary themes, and different critical approaches. The purpose of the course is to increase personal satisfaction in literature and to prepare the student for further literary study. Three contact hours.

LIT 2100 Great Ideas in World Literature (T) 3 cr.
Prerequisite: LIT 2000. This course surveys universal themes and ideas in representative works of the world’s literary traditions from ancient times into the twentieth century. The selections in translations reflect man’s perennial search for meaning in attempting to define relationships to self, society and the universe. This course includes reading and writing components. Three contact hours.

LIT 2374 The Bible as Literature (T) 3 cr.
Prerequisite: ENG 1101. This course is a study of the development of the Bible and its influence on literature and humanity. Three contact hours.

MAC — Mathematics: Calculus and Pre-calculus

MAC 1102 College Algebra (T) 3 cr.
Prerequisite: MAT 1045 with a grade of "C" or better, or a satisfactory score on the placement test. MAC 1102 was designed for students who
plan so major in fields that do not require the study of calculus. The major topics included in this course are equations, roots, and radicals; equations and inequalities; functions, graphs, systems of equations and inequalities, and applications. A review of algebraic techniques is also included in this course as well as the algebraic, geometric, and measurement skills measured by CLAST. This course is recommended for students who plan to major in mathematics, science, engineering, or computer and information sciences. Students cannot get credit for both MAC 1102 and MAC 1104. Three contact hours.

MAC 1104 Precalculus College Algebra (T) 4 cr.
Prerequisite: MAC 1103 with a grade of "C" or better on satisfactory score on placement test. MAC 1104 is recommended for students who plan to major in mathematics, science, engineering, or any other field that requires the study of calculus. The presentation in this course is more formal than that of MAC 1102 and there is less emphasis on functions and graphs. The major topics included in this course are a review of algebraic techniques, equations, roots, and radicals; equations and inequalities; functions, graphs, exponential and logarithmic functions, systems of equations and inequalities; higher degree polynomials; matrices and determinants; and geometric applications. The algebraic, geometric, and measurement skills measured by CLAST are among the skills taught in this course. Students cannot get credit for both MAC 1102 and MAC 1104. Four contact hours.

MAC 1114 College Trigonometry (T) 3 cr.
Prerequisite: MAC 1104 with a grade of "C" or better or a strong high school algebra background. The major topics in this course are circular functions, solving triangles, trigonometric identities and functions, inverse relations and trigonometric equations, complex numbers, and polar coordinates. Three contact hours.

MAC 2233 Calculus and Analytic Geometry I (T) 3 cr.
Prerequisite: MAC 1104 with a grade of "C" or better. This is the first course of the two-course calculus and analytic geometry sequence. It provides an introduction to differential and integral calculus with emphasis placed on applications from business, economics, and the social sciences. Topics from linear algebra will also be covered. This course can be used towards degree requirements for students majoring in mathematics or engineering. Three contact hours.

MAC 2236/2237 Calculus for Business and Social Sciences II (T) 3 cr.
Prerequisites: MAC 2233 or MAC 2237 with a grade of "C" or better. This course is the second course in the calculus for business and social sciences sequence. It provides an introduction to differential and integral calculus with emphasis placed on applications from business, economics, and the social sciences. Topics from linear algebra will also be covered. This course can be used towards degree requirements for students majoring in mathematics or engineering. Three contact hours.

MAC 2312 Calculus with Analytic Geometry II (T) 4 cr.
Prerequisite: MAC 2311 with a grade of "C" or better and MAC 1104 or one semester of high school geometry with a grade of "C" or better. This is the second course of the three-course calculus sequence. This course emphasizes the integration of algebraic, geometric, and analytic techniques and applications to such topics as analytic geometry, indefinite integrals, improper integrals, parametric equations, and polar coordinates. Four contact hours.

MAC 2313 Calculus with Analytic Geometry III (T) 4 cr.
Prerequisite: MAC 2312 with a grade of "C" or better. This is the third course in the calculus with analytic geometry sequence. Topics included in this course are infinite sequences and series, vectors and solid analytic geometry, calculus of functions of several variables, and multiple integrals with applications. Four contact hours.

MAN — Management

MAN 2001 Principles of Management (T) 3 cr.
Suggested preprerequisite: GES 1111 This course contains a detailed analysis of the management functions of planning, organizing, staffing, directing, and controlling as related to management. The course presents fundamental knowledge in management and provides the student with the framework for further study in the field or the background for practical application of management principles. Three contact hours.

MAN 2190 Transportation Management and Theory (T) 3 cr.
This course is designed for students specializing in the transportation field, covers financial management, business law, management of government and non-profit organizations, and business management and philosophy. Three contact hours.

MAN 2500 Personnel Management (T) 3 cr.
This course is designed to provide the student with an understanding of human resource management. It includes recruiting, selection, training, promotion, and motivation. Three contact hours.

MAN 2502 Small Business Management (T) 3 cr.
Prerequisite: MAN 2101, or AGC 2001, or ECO 2001 This course is designed for students who plan to major in business and the management of small business enterprises. It examines and analyzes the managerial function of planning, organizing, directing, and controlling as applied to the small business. Students will also study advertising, wholesaling, manufacturing, and service-type business organizations. Three contact hours.

MAP — Mathematics: Applied

MAP 2801 Differential Equations (T) 3 cr.
Prerequisites: MAC 2312 with a grade of "C" or better. This course contains a study of the methods of solving ordinary differential equations. The major topics include an introduction to differential equations,
Mathematics: Algebraic Structures

MAS 2103 Elementary Linear Algebra (T) 3 cr.
Prerequisite: MAC 1105 or MAC 1106 with a grade of "C" or better. This course introduces the basic concepts of linear algebra, including systems of linear equations, matrices, determinants, vectors, and vector spaces. Three lecture hours; two laboratory hours.

MAT — Mathematics: General

MAT 0092 Basic Mathematics (College Preparatory Course)
This course is designed for students who lack the computational skills necessary for success in MAT 0093 Elementary Algebra. It provides a review of basic arithmetic and an introduction to algebraic concepts. This course is not applicable toward an associate degree. Four lecture hours; two laboratory hours.

MAT 0093 Elementary Algebra (College Preparatory Course)
Prerequisite: MAT 0092 with a grade of "C" or better. This course introduces the basic concepts of algebra, including real numbers, algebraic expressions, and linear equations. Three lecture hours.

MAT 1053 Intermediate Algebra (T) 3 cr.
Prerequisite: MAT 0093 with a grade of "C" or better. This course covers advanced algebraic concepts, including quadratic equations, inequalities, polynomials, and factoring. Three lecture hours.

MCB — Microbiology

MCB 2014C Microbiology (T) 4 cr.
Prerequisites: BIOL 1021, 1022C, or 2055C. This course covers the basic principles of microbiology, including microbial structure, metabolism, and environmental impact. Three lecture hours; three laboratory hours.

MET — Meteorology

MET 1010 Meteorology (T) 3 cr.
This course introduces the basic concepts of meteorology, including atmospheric science and the use of atmospheric data. Three lecture hours.

MGF — Mathematics: General and Finite

MGF 1106 College Mathematics (T) 3 cr.
Prerequisite: MAC 1106 with a grade of "C" or better. This course covers the basic concepts of finite mathematics, including set theory, logical reasoning, and basic probability. Three lecture hours.

MGF 2104 Topics in Finite Mathematics (T) 1 cr.
Prerequisite: MAC 1106 with a grade of "C" or better. This course covers advanced topics in finite mathematics, including optimization and decision-making. One lecture hour.

MKA — Marketing Applications

MKA 1021 Salesmanship (T) 5 cr.
This course covers the basic concepts of salesmanship, including marketing, sales strategies, and customer relations. Five lecture hours.

MLT — Medical Laboratory Technology

MLT 1022C Introduction to Health Technology 3 cr.
The course covers the basic concepts of health technology, including medical terminology and basic medical procedures. Three lecture hours.
evaluates the student's clinical experiences. Thirty-five contact hours (laboratory).

MLT 280L1 Clinical Practicum II 1 cr.
Prerequisite: MLT 280L. Continuing in a directed manner 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 (laboratory).

MMC --- Mass Media Communications

MMC 1100 Introduction to Mass Communications 3 cr.
The course is an introduction to mass communications and includes the history and development of mass media with emphasis on newspaper, radio, television, and magazines. Effective communication rules and responsibilities of mass communication will be taught. Three contact hours.

MMC 2100 Writing for Mass Communication 3 cr.
Prerequisite: ENG 1101. This course provides fundamental instruction and practice in developing and writing news stories for print and broadcast media. Three contact hours.
MUSIC COURSES

MUC — Music: Composition

MUC 1391 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).

MUC — Music: Education

MCE 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).

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

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

MUC 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: Conducting

MUG 1201 Basic Conducting (Choral) (T) 2 cr.
Prerequisite: MUC 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).

MUG — Music: History

MUG 2110 Survey of Music History (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory placement test. This course traces 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.

MUC 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.

MUC 2515 Music in Contemporary Cultures (T) 3 cr.
Prerequisite: ANT 2410. Open to all students as an elective. Made in Contemporary Cultures is a survey course to explore the basic methods of how music is maintained within a given culture as an artistic medium and as a source of cultural continuity, reflecting the values of a given culture or society. Three contact hours.

MUC 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 continuing to its development in the New World and its subsequent influence on America's indigenous music forms through the present day. It facilitates course, the course emphasizes vocal idioms, including Minstrelsy, blues, Rhythm and Blues, Soul, Rock, Gospel and Jazz. Three contact hours.

MUM — Music: Literature

MUL 1010 Music Appreciation (T) 3 cr.
Prerequisite: ENC 1101 or satisfactory placement test. This course, designed for students with little or no musical training, combines a broad overview of music literature with extensive listening. This course includes reading and writing assignments. Three contact hours.

MUM — Music: Commercial

MUM 1500 Recording Techniques I (T) 3 cr.
This course is open to all students. It offers the beginner basic information in the art of recording vocal and instrumental sound with emphasis on understanding the functions of recording equipment, placement of microphones, and the ability to mix down the final recordings. Six contact hours: two lecture hours; four studio 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 an in-depth study of the studio process. This course counts as a prerequisite for MUC 1090: materials fee. Six contact hours: two lecture hours; four studio hours.

MUM — Music: Ensembles

MUM 1130 Symphonic Band (T) 1 cr.
Prerequisite: Permission of instructor/audition. 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 and permission of the instructor to participate. Students may select this course for credit each semester, with up to four credits counting toward the AA degree. Five contact hours (rehearsal).

MUM 1230 Community Orchestra (T) 1 cr.
Prerequisite: Open to students 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, to refine techniques of ensemble playing and to present concerts each term. Membership is by permission of the director and/or audition; string majors must participate. 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).
MUN 1340 Chamber Choir (T) 1 cr.
Prerequisite: Previous choral experience and audition, and by Director's permission. Corequisite: Enrollment in MUNS 1310. 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 as effect (15) to twenty (20) singers, a student may take this course each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUN 1386 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 in Conductor Education credit under Adult Education. Two contact hours (rehearsal).

MUN 1410 String Ensemble (T) 1 cr.
Prerequisite: Open to all students who have experience as players on bowed string instruments, with permission of Professor. The department encourages all students who have experience as players on bowed string instruments to audition. The String Ensemble will perform the standard literature 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 1450 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 pianistic skills, chamber music styles, and the art of piano accompanying, both choral and instrumental. By permission of the professor, the student may elect this course for credit each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUN 1470 Jazz-Rock Ensemble (T) 1 cr.
Prerequisite: Permission of the Director/Audition. Corequisite: MUN 1350 for Woodwind, Brass, and Percussion Players (unless waived by Director). The repertoire includes various styles from jazz and popular literature. The student may elect this course for credit each semester, with up to four credits counting toward the AA degree. Three contact hours (rehearsal).

MUNA 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 3310 College Chorus (T) 1 cr.
Prerequisite: Permission of director; previous choral experience and/or audition with professor. The repertoire of the College Chorus 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.

MUO — Music: Opera/Musical Theatre

MUO 1001 Music Theatre Workshop (T) 1 cr.
Prerequisite: open by audition. This course is open to students interested in the performing of 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 year. Three contact hours (rehearsal).

MUS — Music

MUS 1010 Student Recital (T) 1 cr.
This course is required for all music majors. In conjunction with one recital meeting each week, this student must enroll an announced number of ECEJ related courses. Each Music major enrolled for two hours of applied music is to perform in student recital at least once during the academic year. Meeting times are flexible to coincide with special performance times. One contact hour.

MUL — Music: Theory

MUT 1001 Introduction to Music Theory (T) 3 cr.
This course designed for students who have had four years of formal music instruction, and includes major theory, major, minor, and key terminology, and scales theory. Credit is not given for MUSC 1511 or MUSC 1512. 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).

MUT 1121 Music Theory I (T) 4 cr.
Prerequisite: MUSC 1001 or satisfactory score on placement test or permission of instructor. Corequisite: MUSC 1011. Students must enroll in MUSC 1511. This course introduces music theory and analysis. Credit is not given for MUSC 1511. 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).

MUT 1122 Music Theory II (T) 4 cr.
Prerequisite: MUSC 1121. Corequisite: MUSC 1011. Students must enroll in MUSC 1511. This course introduces music theory and analysis. Credit is not given for MUSC 1512. 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).

MUT 2126 Music Theory III (T) 4 cr.
Prerequisite: MUSC 1122. Corequisite: MUSC 1011. Students must enroll in MUSC 1511. This course introduces music theory and analysis. Credit is not given for MUSC 1513. 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).

MUT 2127 Music Theory IV (T) 4 cr.
Prerequisite: MUSC 2126. Corequisite: MUSC 1011. Students must enroll in MUSC 1514. This course introduces music theory and analysis. Credit is not given for MUSC 1515. 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).
in Applied Music, MUS 1010, and a performing organization. This
contact course in music theory includes altered and diatonic
chords, extension of counterpoint, modern harmony, voice, and
rhythmic style, and advanced sight singing and ear training. Designed
for Music Majors, this course is also open to qualified students. Two
contact hours: three lecture hours, two recital hours.

MUT 2231 Keyboard Harmony I (T) 1 cr.

Prerequisite: MUT 2127. Required of all music majors, this course
includes: the development of skills in the piano and emphasis upon harmonization
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

MVKA 111 1 Class Piano I (T) 1 cr.

This course is for beginning piano students. It includes
emphasis placed on reading and elementary techniques. This course is
required by all music majors, unless exempted. Two contact hours (rehearsal).

MVKB 111 1 Class Piano II (T) 1 cr.

Prerequisite: MVKA 111. This course is a continuation of MVKA 111
and is a requirement for all music majors. Two contact hours (rehearsal).

MVKA 2121 Class Piano III (T) 1 cr.

Prerequisite: MVKB 111. This course is a continuation of MVKA 111
and is a requirement for all music majors. Two contact hours (rehearsal).

MVKB 2121 Class Piano IV (T) 1 cr.

Prerequisite: MVKA 2121. This course is a continuation of MVKA
2121. Two contact hours (rehearsal).

MVKA 2621 Basic Piano Pedagogy I (T) 2 cr.

This introductory class prepares the student for professional
piano teaching at the beginner and early elementary level. Three contact hours.

MVKB 2621 Basic Piano Pedagogy II (T) 2 cr.

This course is a continuation of piano pedagogy, preparing students for
professional piano teaching at the upper elementary and intermediate levels
through lectures, demonstrations, and observations. Three contact hours.

MVS — Music: Strings

MVSA 1116 Class Guitar I (T) 1 cr.

This course is designed for students who are interested in studying
Class Guitar. It includes a study of the development of the instrument, past
and present guitar music, and the music literature for the performance tech-
nique. Two contact hours (rehearsal).

MVSB 1116 Class Guitar II (T) 1 cr.

Prerequisite: MVSA 1116. This course is a continuation of MVSA 1116.

Class Guitar I, performing and advancing skills learned therein. Two con-
tact hours (rehearsal).

MVSA 2126 Class Guitar III (T) 1 cr.

Prerequisite: MVSB 1116. This course is a continuation of MVSA 1116,
performing and advancing skills learned therein. Two contact hours (rehearsal).

MVSA 2126 Class Guitar IV (T) 1 cr.

Prerequisite: MVSA 2126. This course is a continuation of MVSA 2126,
performing and advancing skills learned therein. Two contact hours (rehearsal).

MVY — Music: Voice

MVVA 1111 Class Voice I (T) 1 cr.

This course is for singers wishing to further their vocal skills and
instrumentalists wishing a fundamental vocal knowledge. The course is
planned for students majoring in voice and taking preparation with the receiving
individual aid. Two contact hours (rehearsal).

MVVB 1111 Class Voice II (T) 1 cr.

Prerequisite: MVVA 1111. This course is a continuation of MVVA
1111. Two contact hours (rehearsal).

MVVA 2121 Class Voice III (T) 1 cr.

Prerequisite: MVVB 1111. This course is for singers wishing to develop
vocal skills for the upper elementary level of voice instruction and text production.
The course is planned for instrumentalists with a higher vocal
knowledge and competency level. This course meets as a class, per
emphasizing individual instruction. Two contact hours (rehearsal).

MVVB 2121 Class Voice IV (T) 1 cr.

Prerequisite: MVVA 2121. This course is a continuation of MVVA
2121. Two contact hours (rehearsal).

APPLIED MUSIC COURSES

MV3 — Music: Brasses

Baritone

MVBA 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. Two hour lessons a week.

MVBB 1014 Applied Preparatory Baritone II (T) 2 cr.

Prerequisite: MVBA 1014. Second semester of private lessons designed
for music majors whose background indicates a need for further preparation.
Two hour lessons a week.

MVBA 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 a week.
MVBA 1214 Applied Principal Baritone II (T) 2 cr.
Prerequisite: MVBA 1114. 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 2224 Applied Principal Baritone III (T) 2 cr.
Prerequisite: MVBA 2124. 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 per week.

MVBA 2224 Applied Principal Baritone IV (T) 2 cr.
Prerequisite: MVBA 2224. 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 per 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 2224 Applied Secondary Baritone III (T) 1 cr.
Prerequisite: MVBA 2224. 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 2224. 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 per 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 per 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 per week.

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

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

MVW — Music: Woodwinds

MVBA 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 per week.

MVBA 1014 Applied Preparatory Bassoon II (T) 2 cr.
Prerequisite: MVBA 1114. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per 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 per week.

MVWA 1314 Applied Principal Bassoon II (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.

MVWA 1314 Applied Principal Bassoon III (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.

MVWA 1314 Applied Principal Bassoon IV (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.

MVWA 1314 Applied Principal Bassoon V (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.

MVWA 1314 Applied Principal Bassoon VI (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.

MVWA 1314 Applied Principal Bassoon VII (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.

MVWA 1314 Applied Principal Bassoon VIII (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.

MVWA 1314 Applied Principal Bassoon IX (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.

MVWA 1314 Applied Principal Bassoon X (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.

MVWA 1314 Applied Principal Bassoon XI (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.

MVWA 1314 Applied Principal Bassoon XII (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.

MVWA 1314 Applied Principal Bassoon XIII (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.

MVWA 1314 Applied Principal Bassoon XIV (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.

MVWA 1314 Applied Principal Bassoon XV (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.
designed for the student majoring in performance. Two half-hour lessons a week.

**MVS 2424 Applied Major Bassoon III (T)**
Prerequisite: MVS 2423. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS 2425 Applied Major Bassoon IV (T)**
Prerequisite: MVS 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS — Music: Strings (Continued)**

**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 a week.

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

**MVS 1313 Applied Principal Cello 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 1314 Applied Principal Cello II (T)**
2 cr.
Prerequisite: MVS 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 lessons a week.

**MVS 2323 Applied Principal Cello III (T)**
2 cr.
Prerequisite: MVS 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.

**MVS 2324 Applied Principal Cello IV (T)**
2 cr.
Prerequisite: MVS 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.

**MYS 1213 Applied Secondary Cello 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.

**MYS 1214 Applied Secondary Cello II (T)**
1 cr.
Prerequisite: MYS 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.

**MVS 2223 Applied Secondary Cello III (T)**
1 cr.
Prerequisite: MYS 2222. 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.

**MVS 2224 Applied Secondary Cello IV (T)**
1 cr.
Prerequisite: MVS 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.

**MVS 1413 Applied Major Cello 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.

**MVS 1414 Applied Major Cello II (T)**
3 cr.
Prerequisite: MVS 1413. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS 2423 Applied Major Cello III (T)**
3 cr.
Prerequisite: MVS 2422. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

**MVS — Music: Woodwinds (Continued)**

**MVS 1013 Applied Preparatory Clarinet 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.

**MVS 1014 Applied Preparatory Clarinet 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.

**MVS 1313 Applied Principal Clarinet I (T)**
2 cr.
Prerequisite: MVS 1312. 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 1314 Applied Principal Clarinet II (T)**
2 cr.
Prerequisite: MVS 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 lessons a week.

**MVS 1315 Applied Principal Clarinet III (T)**
2 cr.
Prerequisite: MVS 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.

**MVS 1316 Applied Principal Clarinet IV (T)**
2 cr.
Prerequisite: MVS 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.

**MVS 2323 Applied Principal Clarinet III (T)**
2 cr.
Prerequisite: MVS 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.

**MVS 2324 Applied Principal Clarinet IV (T)**
2 cr.
Prerequisite: MVS 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.
(e.g., music education, music therapy, etc.). Two half-hour lessons a week.

**MVWA 1213 Applied Secondary Clarinet 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.

**MVWA 1213 Applied Secondary Clarinet II (T)** 1 cr.
Prerequisite: MVWA 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.

**MVWA 2223 Applied Secondary Clarinet III (T)** 1 cr.
Prerequisite: MVWA 2222. 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 2223 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.

**MVWA 1413 Applied Major Clarinet II (T)** 3 cr.
Prerequisite: MVWA 1413. 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: MVWA 2422. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVWA 2423 Applied Major Clarinet 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.

**MVW — Music: Woodwinds (Continued)**

**Flute**

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

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

**MVWA 1311 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 1311 Applied Principal Flute II (T)** 2 cr.
Prerequisite: MVWA 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.

**MVWA 2311 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.

**MVWA 2311 Applied Principal Flute IV (T)** 2 cr.
Prerequisite: MVWA 2311. 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 2311 Applied Principal Flute V (T)** 2 cr.
Prerequisite: MVWA 2311. 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 Secondary Flute 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 1211 Applied Secondary 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 Secondary Flute III (T)** 1 cr.
Prerequisite: MVWA 2221. 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 2221 Applied Secondary 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.

**MVWA 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: MVWA 2421. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVWA 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.
designed for the student majoring in performance. Two half-hour lessons a week.

MVB — Music: Brass (Continued)

French Horn

MVB 1412 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.

MVB 1412 Applied Preparatory French Horn II (T) 2 cr.
Prerequisite: MVB 1412. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVB 1522 Applied Principal French Horn I (T) 2 cr.
Prerequisite: MVB 1522. 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.

MVB 1522 Applied Principal French Horn II (T) 2 cr.
Prerequisite: MVB 1522. 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.

MVB 1622 Applied Principal French Horn III (T) 2 cr.
Prerequisite: MVB 1622. 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.

MVB 1622 Applied Principal French Horn IV (T) 2 cr.
Prerequisite: MVB 1622. 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.

MVB 1722 Applied Principal French Horn V (T) 2 cr.
Prerequisite: MVB 1722. 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.

MVB 1822 Applied Principal French Horn VI (T) 2 cr.
Prerequisite: MVB 1822. 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.

Guitar

MVGA 1042 Applied Preparatory Guitar 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.

MVGA 1042 Applied Preparatory Guitar II (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar III (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar IV (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar V (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar VI (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar VII (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Applied Preparatory Guitar VIII (T) 2 cr.
Prerequisite: MVGA 1042. 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.

MVGA 1042 Advanced Guitar I (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar II (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar III (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar IV (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar V (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar VI (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar VII (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar VIII (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar IX (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar X (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar XI (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVGA 1042 Advanced Guitar XII (T) 2 cr.
Prerequisite: MVGA 1042. Advanced study for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.
for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVSA 2226 Applied Secondary Guitar III (T)**  1 cr.
Prerequisite: MVSA 1216. 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 2226 Applied Secondary Guitar IV (T)**  1 cr.
Prerequisite: MVSA 2226. 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 1416 Applied Major Guitar 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 1416 Applied Major Guitar II (T)**  3 cr.
Prerequisite: MVSA 1416. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

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

**MVW — Music: Woodwinds (Continued)**

**MVWA 1412 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 lesson per week.

**MVWA 1412 Applied Preparatory Oboe II (T)**  2 cr.
Prerequisite: MVWA 1412. 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.

**MVWA 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 1312. 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 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 2312 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.

**MVWA 2312 Applied Secondary Oboe II (T)**  1 cr.
Prerequisite: MVWA 2312. 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: MVWA 2312. 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 2312. 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.

**MVWA 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 1412. 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.

**MVK — 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 music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

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

MVKA 2323 Applied Principal Organ III (T) 2 cr.
Prerequisite: MVKA 1313. Third semester of private lessons designed for the student majoring in music except performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVKA 2323 Applied Principal Organ IV (T) 2 cr.
Prerequisite: MVKA 2323. Fourth semester of private lessons designed for the student majoring in 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.

MVKB 1213 Applied Secondary Organ I (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 2223. 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 2223 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 1413 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 2423 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.

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.

MVOA 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 1310 Applied Preparatory 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 1310 Applied Preparatory Other II (T) 2 cr.
Prerequisite: MVOA 1310. 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 2340 Applied Preparatory Other III (T) 2 cr.
Prerequisite: MVOA 2340. 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.

MVOA 2340 Applied Preparatory Other IV (T) 2 cr.
Prerequisite: MVOA 2340. 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.

MVOA 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: MVOA 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.

MVOA 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.

MVB 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 2470 Applied Major Other III (T) 3 cr.  
Prerequisite: MVOA 2470. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVB 2470 Applied Major Other IV (T) 3 cr.  
Prerequisite: MVOA 2470. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVP — Music Percussion

MVP A 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.

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

MVP A 1311 Applied Principal Percussion 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.

MVP A 1311 Applied Principal Percussion II (T) 2 cr.  
Prerequisite: MVP A 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.

MVP A 2321 Applied Principal Percussion III (T) 2 cr.  
Prerequisite: MVP A 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.

MVP A 2321 Applied Principal Percussion IV (T) 2 cr.  
Prerequisite: MVP A 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.

MVP A 1211 Applied Secondary Percussion 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.

MVP A 1211 Applied Secondary Percussion II (T) 1 cr.  
Prerequisite: MVP A 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.

MVP A 2221 Applied Secondary Percussion III (T) 1 cr.  
Prerequisite: MVP A 2221. 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.

MVP A 2221 Applied Secondary Percussion IV (T) 1 cr.  
Prerequisite: MVP A 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 per week.

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

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

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

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

MVK — Music Keyboard (Continued)

MVK A 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.

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

MVK A 1311 Applied Principal 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.

MVK A 1311 Applied Principal Piano II (T) 2 cr.  
Prerequisite: MVP A 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.

MVK A 2321 Applied Principal Piano III (T) 2 cr.  
Prerequisite: MVP A 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.

MVK A 2321 Applied Principal Piano IV (T) 2 cr.  
Prerequisite: MVP A 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.

MVK B 1311 Applied Principal Piano II (T) 2 cr.  
Prerequisite: MVP A 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.

MVK A 2221 Applied Principal Piano III (T) 2 cr.  
Prerequisite: MVP A 2221. 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.

MVK A 2221 Applied Principal Piano IV (T) 2 cr.  
Prerequisite: MVP A 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.
MVKA 2421 Applied Principal 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 Applied 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 1221 Applied Secondary Piano II (T) 1 cr.
Prerequisite: MVKA 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.

MVKA 2221 Applied Secondary Piano III (T) 1 cr.
Prerequisite: MVKA 2221. 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 2221 Applied Secondary Piano IV (T) 1 cr.
Prerequisite: MVKA 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.

MVKA 1311 Applied Major Piano 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 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 2421. 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)

MVWA 1615 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.

MVWA 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.

MVWA 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 I (T) 2 cr.
Prerequisite: MVWA 2325. 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 2325 Applied Principal Saxophone II (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.

MVWA 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: MVWA 2225. 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 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.). Two half-hour lessons a week.

MVWA 1115 Applied Major Saxophone 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.

MVWA 1115 Applied Major Saxophone II (T) 3 cr.
Prerequisite: MVWA 1115. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

MVWA 2421 Applied Major Saxophone 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.
designed for the student majoring in performance. Two half-hour lessons a week.

**MVS — Music: Strings (Continued)**

**String Bass**

**MVS 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.

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

**MVS 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.

**MVS 1314 Applied Principal String Bass II (T)** 2 cr.
Prerequisite: MVS 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.

**MVS 2324 Applied Principal String Bass III (T)** 2 cr.
Prerequisite: MVS 2324. 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 2324 Applied Principal String Bass IV (T)** 2 cr.
Prerequisite: MVS 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.

**MVS 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 major. One half-hour lesson per week.

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

**MVS 2224 Applied Secondary String Bass III (T)** 1 cr.
Prerequisite: MVS 2214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal major. One half-hour lesson per week.

**MVS 2224 Applied Secondary String Bass IV (T)** 1 cr.
Prerequisite: MVS 2224. 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 1414 Applied Major String Bass 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.

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

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

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

**MVB — Music: Brasses (Continued)**

**Trombone**

**MVB 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.

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

**MVB 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.

**MVB 1313 Applied Principal Trombone II (T)** 2 cr.
Prerequisite: MVB 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 lessons a week.

**MVB 2323 Applied Principal Trombone III (T)** 2 cr.
Prerequisite: MVB 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.

**MVB 2323 Applied Principal Trombone IV (T)** 2 cr.
Prerequisite: MVB 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.

**MVB 1213 Applied Secondary Trombone 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 major. One half-hour lesson per week.

**MVB 1213 Applied Secondary Trombone II (T)** 1 cr.
Prerequisite: MVB 1213. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal major. One half-hour lesson per week.
MVBA 2223 Applied Secondary Trombone III (T) 1 cr.
Prerequisite: MVBA 2222 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.

MVBB 2223 Applied Secondary Trombone IV (T) 1 cr.
Prerequisite: MVBA 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.

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.

MVBB 1413 Applied Major Trombone II (T) 3 cr.
Prerequisite: MVBA 1412 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: MVBB 1413 Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBB 2423 Applied Major Trombone IV (T) 3 cr.
Prerequisite: MVBA 2422 Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA — Music: Brasses (Continued)

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.

MVBA 2321 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 performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.

MVBB 2321 Applied Principal Trumpet IV (T) 2 cr.
Prerequisite: MVBA 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.

MVBA 1311 Applied Major Trumpet I (T) 1 cr.
Prerequisite: MVBA 2321 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 Major Trumpet II (T) 1 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.

MVBA 2421 Applied Major Trumpet III (T) 1 cr.
Prerequisite: MVBA 2421 Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBB 2421 Applied Major Trumpet IV (T) 1 cr.
Prerequisite: MVBA 2421 Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVBA — Music: Brasses (Continued)

MVBA 1015 Applied Preparatory Tuba 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.

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

MVBA 1315 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.

MVBB 1315 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 performance (e.g., music education, music therapy, etc.). Two half-hour lessons a week.
of music except performance (e.g. music education, music therapy, etc.).
Two half-hour lessons a week.

**MVVE 1315 Applied Principal Tuba II (T)**
2 cr.
Prerequisite: MVVE 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.

**MVVA 2325 Applied Principal Tuba III (T)**
2 cr.
Prerequisite: MVVA 2324. 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.

**MVVB 2325 Applied Principal Tuba IV (T)**
2 cr.
Prerequisite: MVVB 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.

**MVVA 1215 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.

**MVVA 2221 Applied Secondary Tuba III (T)**
1 cr.
Prerequisite: MVVA 2220. 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.

**MVVA 2224 Applied Secondary Tuba IV (T)**
1 cr.
Prerequisite: MVVA 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.

**MVVA 1415 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.

**MVVA 1415 Applied Major Tuba II (T)**
3 cr.
Prerequisite: MVVA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVVA 2425 Applied Major Tuba III (T)**
3 cr.
Prerequisite: MVVA 2424. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVVA 2425 Applied Major Tuba IV (T)**
3 cr.
Prerequisite: MVVA 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS — Music: Strings (Continued)**

**MVSA 1012 Applied Preparatory Viola 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.

**MVSB 1012 Applied Preparatory Viola II (T)**
2 cr.
Prerequisite: MVSA 1011. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

**MVSA 1312 Applied Principal Viola 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.

**MVSA 1313 Applied Principal Viola II (T)**
2 cr.
Prerequisite: MVSA 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.

**MVSA 2322 Applied Principal Viola III (T)**
2 cr.
Prerequisite: MVSA 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.

**MVSA 2322 Applied Principal Viola IV (T)**
2 cr.
Prerequisite: MVSA 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.

**MVSA 1212 Applied Secondary Viola 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 1212 Applied Secondary Viola II (T)**
1 cr.
Prerequisite: MVSA 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.

**MVSA 2222 Applied Secondary Viola III (T)**
1 cr.
Prerequisite: MVSA 2221. 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.

**MVSA 2222 Applied Secondary Viola 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 1412 Applied Major Viola 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.
MYSB 1412 Applied Major Violin II (T) 3 cr.
Prerequisite: MYSB 1412. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

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

MV -- Music: Strings (Continued)
Violin

MYSV 1011 Applied Preparatory Viola 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.

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

MYSV 1311 Applied Principal 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.

MYSV 1311 Applied Principal Violin II (T) 2 cr.
Prerequisite: MYSV 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.

MYSV 2321 Applied Principal Violin III (T) 2 cr.
Prerequisite: MYSV 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.

MYSV 2321 Applied Principal Violin IV (T) 2 cr.
Prerequisite: MYSV 1321. 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.

MYSV 1211 Applied Secondary Violin 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 instrument. One half-hour lesson per week.

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

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

for music majors needing to gain proficiency on an instrument other than their principal instrument. One half-hour lesson per week.

MYSV 2221 Applied Secondary Violin IV (T) 1 cr.
Prerequisite: MYSV 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.

MYSV 1411 Applied Major Violin 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.

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

MYSV 2411 Applied Major Violin III (T) 3 cr.
Prerequisite: MYSV 2411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MYSV 2411 Applied Major Violin IV (T) 3 cr.
Prerequisite: MYSV 2411. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MV -- Music: Voice (Continued)

MVVA 1011 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 1011 Applied Preparatory Voice 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.

MVVV 1011 Applied Preparatory Voice I (T) 2 cr.
Prerequisite: MVV 1011. 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 1311 Applied Principal Voice III (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 IV (T) 2 cr.
Prerequisite: MVVA 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.

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.
NUR 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.

NUR 1211 Applied Secondary Voice II (T) 1 cr.
Prerequisite: NUR 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.

NUR 2221 Applied Secondary Voice III (T) 1 cr.
Prerequisite: NUR 2221. 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.

NUR 2221 Applied Secondary Voice IV (T) 1 cr.
Prerequisite: NUR 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.

NUR 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.

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

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

NUR 2421 Applied Major Voice IV (T) 3 cr.
Prerequisite: NUR 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 1090C Transitional Nursing Process 1 12 cr.
Prerequisites: ANE 2190C, ANB 2191C. MCH 2193C, ENC 1101, ENC 1102, PSY 1012, DPH 2004 and any one of the following: SYG 2000, 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, norms, fluids/elecrolites, and drug administration. The course includes basic principles of mental health, community, family, and pediatric/nursing, with emphasis placed on recognition of the nurse's role within the framework of the nursing process. This course utilizes simulated and actual nursing care work experiences for application of theoretical concepts. Student's receive evaluation in selected clinical skills in the campus nursing laboratory. Nineteen contact hours, five lecture hours, fourteen laboratory hours.

NUR 1021C Nursing Process I - Fundamentals of Nursing 10 cr.
Prerequisites: APH 2391C. Nursing I is a study of the principles and techniques that form the foundation for nursing care. The nursing process—assessing, planning, implementing, and evaluating—serves as the framework for the application of content with emphasis on nursing interventions and adaptations for specific age groups, particularly the elderly client, to meet the basic needs in health maintenance. Content and experience focus on observation, communication, the interpersonal process, recording, health promotion, administration of drugs, treatment, medication, elimination, fluid balance, and oxygen. The course introduces current trends and legal implications of nursing. Fifteen contact hours, five lecture hours, ten laboratory hours.

NUR 1212C Nursing Process II — Medical Surgical Nursing 10 cr.
Prerequisites: NUR 1021C, MCH 2012C. With Nursing I as a foundation, this course moves from the basic client needs in health maintenance to common acute problems which require new knowledge and adaptations and includes study of the physical and psychological needs of clients. The course places emphasis on the essential knowledge, understanding, and skills necessary for the nursing care of adult clients with medical and surgical conditions and upon the interpersonnel process. This course contains the four steps of the nursing process with a higher level of performance expected of students. Sixteen contact hours, four lecture hours, twelve laboratory hours. Students will receive learning experiences on campus or in a clinical facility.

NUR 1793C Transitional Nursing II 6 cr.
Prerequisites: NUR 1090C. Corequisites: May be enrolled in one of the following: 1. Any course listed under AS Degree: Humanities, 2. Sociology 2000, or 3. A social science course: HISP 1101, AMH 2011, POS 2041, ISS 1120. A continuation of NUR 1090C, this course, designed for and limited to the Florida Licensed Practical Nurse, introduces the student to the role of the nursing process in his/her newly developed role when interacting with clients having infections in their physical and psychological health. The course emphasizes demonstration of knowledge, comprehension, application, and analysis of the nursing process and related nursing care. The course utilizes simulated and actual nursing experiences in theoretical concepts and evaluates clinical skills in the campus nursing laboratory. Eighteen contact hours, four lecture hours, four laboratory hours (in campus lab or clinical facility).

NUR 2313C Nursing Process IIIB — Nursing Care of Children 6 cr.
Prerequisites: NUR 1212C, DEP 2004. Corequisites: NUR 2412C. With Nursing I and II as a basis, Nursing IIIA comprises the child bearing cycle as an adaptation of the state of wellness and caring.
NUR 2521 C: Nursing Process IVB — Psychiatric  
Prerequisite: NUR 2520 C, NUR 2521 C, Corequisite: NUR 2521 C. This four-week course builds 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 adolescents and adults with deviant patterns of behavior. Nineteen contact hours: five lecture hours; fourteen laboratory hours.

NUR 2731 C: Nursing Process IV A — Medical-Surgical Nursing Care of the Adult Patient  
Prerequisites: NUR 2520 C, NUR 2521 C, MCB 2513 C, Corequisite: NUR 2522 C. This eleven-week course is a continuation of the study of commonly occurring health problems of patients from the young adult through senescence with focus on the illness rate of the curatituim. The nursing process will serve at the basis for nursing care. The student will gain learning care for patients with medical-surgical deviations. Learning experiences will provide opportunities to utilize previously acquired knowledge and skills in giving nursing care and functioning as a team member. Recognizing the special status and needs of the beginning associate degree nurse practitioner, this course includes a transition clinical experience. Twenty contact hours: four lecture hours; sixteen laboratory hours.

Students will receive learning experiences on campus or in a clinical facility.

OCB — Oceanography: Biological

OCR 2003 C: Fundamentals of Marine Biology (T)  
This course is designed to introduce the student to the most common commercially produced flowering and foliage plants. The student will study basic plant morphology, physiology, plant identification, as well as the care of foliage and flowering plants in indoor and outdoor settings. Lecture and laboratory activities are provided in a laboratory setting using hands-on experiences with the tools and materials appropriate to course content and in accordance with practices in the field. Four contact hours; three laboratory hours.

OCR 2001 C: Survey of Oceanography (T)  
Prerequisite: MAF 1053 C, Corequisite: MAC 1104 and OCR 2001 C. This course introduces the reader to the ocean and its physical, chemical, and biological aspects. Three contact hours.

OCR 2001 T: Oceanography Laboratory (T)  
Corequisite: OCR 2001. This is a laboratory course intended to supplement OCR 2001. Survey of Oceanography, and introduces field-topography, techniques. Three contact hours; three laboratory hours.

ORH — Ornamental Horticulture

ORH 1041 C: Basic Floral Design  
The purpose of this course is to introduce students to employment opportunities and educational and personal requirements for employment in the Floral industry. Students will acquire basic skills in identification, care and processing of cut flowers and foliage; selection, use and care of floral tools and materials for foliage and floral arrangements. Students will also learn the art of floral design, creative and basic techniques of design. Skills and materials will include floral equipment, techniques, and care. Four contact hours; one lecture hour; three laboratory hours.

ORH 1043 C: Intermediate Floral Design  
Prerequisite: ORH 1041 C. The purpose of this course is to provide an introduction to creative design, color theory, and basic techniques of floral design. Students will also study the art of floral design, creative and basic techniques of design. Students will also learn the art of floral design, creative and basic techniques of design. Skills and materials will include floral equipment, techniques, and care. Four contact hours; one lecture hour; three laboratory hours.

ORH 2045 C: Advanced Floral Design  
Prerequisites: ORH 1041 C, ORH 1043 C. This is the follow-up class to Intermediate Design. In this course the student will learn to coordinate complete weddings. It will include designing bouquets, centerpieces, decorating the church, and setting up the reception. Four contact hours; one lecture hour; three laboratory hours.

ORH 3510 C: Identification, Care, and Handling of Foliage and Flowering Plants  
This course is designed to introduce the student to the most common commercially produced flowering and foliage plants. The student will study basic plant morphology, physiology, plant identification, as well as the care of foliage and flowering plants indoors and outdoors. Lecture and laboratory activities are provided in a laboratory setting using hands-on experiences with the tools and materials appropriate to course content and in accordance with practices in the field. Four contact hours; three laboratory hours.

ORH 1510 C: Basic Florist Management  
The course is designed to teach the student about buying, budgeting, keeping records, delivery, creditibility, using a computer, managing employees, customer relations, planning for the holidays, advertising, and retail service. Three contact hours.

ORH 1512 C: Advanced Floral Management  
Prerequisite: ORH 1510. This course is designed to provide the student with the opportunity to acquire knowledge and skills necessary to own and operate a retail florist shop. This instruction will include the selection of location, the selection of location, the training and management of employees, the building and display of window displays. The student will learn how to lay out the greenhouse, order, sales, and display window location. The student will display skills in selection of merchandise, products, and location of flowers. Three contact hours.
ORH 1800 Exterior and Interior Landscaping 3 cr.
The 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.

ORH 1941 Floral Design Internship I 3 cr.
Prerequisite: ORH 1940. Students will work in a retail Florist shop nine hours per week. The instructor will work with the shop manager or owner to monitor student progress toward pre-determined goals. Students will attend a two-hour seminar on campus every other week. Ten contact hours: one lecture hour; nine hours on-the-job experience.

ORH 1942 Floral Design Internship II 3 cr.
Prerequisite: ORH 1941. This course is a continuation of ORH 1941. Students will work in a retail Florist shop nine hours per week. The instructor will work with the shop manager or owner to monitor student progress toward pre-determined goals. Students will attend a two-hour seminar on campus every other week. Ten contact hours: one lecture hour; nine hours on-the-job experience.

ORI - Oral Interpretation

ORI 2000 Oral Interpretation (T) 3 cr.
Recommended prerequisite: SPC 2000. This course consists of critical analysis and appreciation of literature from both the emotional and the intellectual viewpoints. 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 System Technology

OST 1100 Beginning Typewriting (T) 3 cr.
The major objectives of the course, designed for the student who has had little or no typewriting experience, are to learn the keyboard and to develop correct typewriting techniques. This course introduces horizontal and vertical typing, 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, designed for students who have learned correct keyboarding techniques, emphasizes speed building and the application of basic skills to business letters, memos, letters, reports, tables, and forms. Students who have satisfactorily completed two years of high school typewriting should enroll in OST 2100. Three contact hours.

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

OST 1212 Shorthand II (T) 3 cr.
Prerequisite: OST 1211 or ability to take dictation at 50 words per minute for two minutes. Corequisite: OST 1110 or ability to type 35 words per minute on straight copy. This course is a continuation of Shorthand I 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 basic mathematical treatment of financial problems arising in modern businesses. The principal purpose of this course is to review the fundamental processes (addition, subtraction, multiplication, and division) while developing the current budget system and calculating skills in handling business transactions. The course covers percentages, simple and compound interest, inventory, depreciation, payroll, commissions, taxes, discounts, 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. This course is an introduction to office systems in the integration of people, procedures, equipment, and the environment. It provides a study of the information processing cycle utilizing both manual and electronic procedures and stresses the development of human relations skills for survival in today's office. Three contact hours.

OST 1601 Machine Transcription I (T) 3 cr.
Prerequisite: Eligible for ENC 101; OST 1200 or ability to type 25 words per minute. This course integrates beginning transcription and keyboarding techniques with the development of reading, listening, 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 1110 or ability to type 40 words per minute for five minutes on straight copy. This course includes concepts of word processing and applications on text-editing 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 1210 or ability to type 40 words per minute for five minutes on straight copy. This is an advanced typewriting course which gives office systems students experience and practice in typing legal papers and documents. Three contact hours.

OST 2131 Advanced Typewriting — Medical 3 cr.
Prerequisite: OST 1110 or ability to type 40 words per minute for five minutes on straight copy. This is an advanced typewriting course which gives office systems students experience and practice in medical termi—
ogy, and typing medical papers, documents, and forms. Three contact hours.

**OST 2211 Shorthand III (T) 3 cr.**
Pre-requisites: OST 1212 or ability to take dictation at 60 words per minute for three minutes, OST 1110 or ability to type at least 45 words per minute. This course reviews Gregg Shorthand theory and develops the ability to take dictation and transcribe rapidly and 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.**
Pre-requisite: ENC 1101 or consent of professor, and the ability to type. This course includes a study of effective business communications and a brief review of grammar, punctuation, and vocabulary with extensive practice given in business letter writing. Three contact hours.

**OST 2402 Office Systems I (T) 3 cr.**
Pre-requisite: OST 1101. A continuation of Office Systems I with an in-depth review of the information processing cycle. Planning, organizing, decision making, and error development skills will be emphasized. Three contact hours.

**OST 2404 Office Systems Management (T) 5 cr.**
This course applies management principles to planning, controlling, and coordinating office systems. Emphasis is given to organization of office resources, leadership and motivation of office personnel, office environment, and design of business information systems. Three contact hours.

**OST 2602 Machine Transcription II (T) 3 cr.**
Pre-requisite: OST 1601, OST 1110. This course is a continuation of OST 1601 and provides a simulation of office tasks to aid the student in attaining competency in transcribing from machine dictation in proper and accurate use of language arts, in formatting office papers, and in the effective use of current office technology. Three contact hours.

**OST 2722 Word Processing II (T) 3 cr.**
Pre-requisite: OST 1711. This course covers word processing concepts and applications, a continuation of OST 1711. It emphasizes tables, special functions, and files. Three contact hours.

**PCB — Process (Cell and Molecular) Biology**

**PCB 2033 General Ecology (T) 3 cr.**
Pre-requisite: Successful completion of a biological or physical science course. This course is an introduction to the study of ecology, principles of biology with applications to environmental issues, and discussion of major terrestrial/aquatic ecosystems. Three contact hours.

**PEL — Physical Education**

**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, badminton, volleyball, billiard, and croquet, etc. Two contact hours (activity).

**PEL 1121 Beginning Golf (T) 1 cr.**
This beginning course teaches the basic golf swing and its application to junior clubs. The course also includes putting, chipping, rules, and simple strategy. Two contact hours (activity).

**PEL 1211 Softball (T) 1 cr.**
This course is designed to introduce the students to the game of softball and develop the basic skills of batting, fielding, throwing, and hitting. Two contact hours (activity).

**PEL 1311 Beginning Tennis (T) 1 cr.**
This introductory course covers the history, scoring, game strategy, and basic skills which include forehand, backhand, and serves. Three contact hours (activity).

**PEL 1341 Beginning Badminton (T) 1 cr.**
This course introduces the basic skills and strategy of badminton. Three contact hours (activity).

**PEL 1346 Beginning Badminton II (T) 1 cr.**
This course provides a review of the basic skills of badminton. Three contact hours (activity).

**PEL 1351 Beginning Soccer (T) 1 cr.**
This course introduces the student to the rules and strategy of soccer. Two contact hours (activity).

**PEL 1622 Advanced Basketball (T) 1 cr.**
This course is designed to teach the skills in basketball and 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 is designed to teach the skills in volleyball and includes instruction in offensive and defensive strategies, rules, and strategy to the student interested in either the competitive or recreational aspect of the game. Two contact hours (activity).

**PEM — Physical Education Activities (General) — Performance Centered, Land**

**PEM 1101 Physical Conditioning (T) 1 cr.**
This course is designed to assist men and women in becoming stronger, more flexible, better coordinated and more graceful. Includes a program of planned activities such as selected exercises, use of the universal gym, and conditioning. Two contact hours (activity).

**PEM 1109 Circuit Training (T) 1 cr.**
This course consists of a planned fitness training program to increase muscular strength and endurance through a planned series of exercises. Two contact hours (activity).
PEM 1131 Strength Training (Nautilus/Universal) (T) 1 cr.
Recommended prerequisite or corequisite: HLP 1081. This course is designed to provide basic strength training principles and individualized programs with emphasis on muscular strength and endurance. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course. Two contact hours: one lecture hour, one laboratory hour (activity).

PEM 1146 Beginning Jogging (T) 1 cr.
Recommended prerequisite or corequisite: HLP 1081. This course introduces basic concepts of the beginner jogger such as safety factors, warm-up and cool-down, developing individual style, equipment selection, training principles, and injury prevention and precautions. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course. Two contact hours: one lecture hour, one laboratory hour (activity).

PEM 1148 Walking For Fitness 1 cr.
Recommended prerequisite or corequisite: HLP 1081. This course introduces an everyday activity that can be transformed into a regular lifelong exercise program to help develop and maintain fitness. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course. Two contact hours: one lecture hour, one laboratory hour (activity).

PEM 1171 Aerobics to Music 1 cr.
Recommended prerequisite or corequisite: HLP 1081. This course is designed to introduce techniques for improving aerobic capacity exercises with a combination of exercise and music to enhance enjoyment of music and exercise rather than skill. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course. Two contact hours: one lecture hour, one laboratory hour (activity).

PEM 1361 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).

PEM 1351 Cycling for Safety and Fitness (T) 1 cr.
Recommended prerequisite or corequisite: HLP 1081. This course introduces basic concepts of the cyclist such as equipment/clothing, basic operating skills, traffic rules/laws/safety, fitness training principles, and cycling for commuting, racing, and fitness. Students must furnish their own bike. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course. Two contact hours: one lecture hour, one laboratory hour (activity).

PEN — Physical Education Acts (General) — Water, Snow, Ice
PEN 1135 Underwater Diving Skills (T) 3 cr.
Students must pass a swimming test prior to acceptance into the course and will benefit by taking MAT 1054 prior to enrolling in PEN 1135, the scientific study of underwater judgement, attitude, discipline, and fitness leading to a Professional Association of Diving Instructors (PADI) certification. This course will stress the large underwater diving techniques which will be used for making physical and biological collections in the field. The course will include all classroom and field instruction necessary to qualify students for a national diving certification and open water checkout. Students must participate in field trips for open water diving as an integral component of the course's learning experience. Six contact hours: three lecture hours; three instructional field experiences (open water dives).

PHI — Physical Education Acts (Professional) — Object Centered, Land
PHI 2003 Sports Officiating (T) 3 cr.
This course, designed to acquire the skills and techniques of officiating games, involves an examination of rules, individual and dual sports. Covers baseball, basketball, soccer, track and field, volleyball, tennis, and sand volleyball. Three contact hours.

PHT — Physical Education Theory
PHT 2000 Introduction to Physical Education (T) 3 cr.
This course, designed for students interested in physical education as a profession, examines the place, 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.

PGF — Photography
PGF 2161C Photography I
See page 101 of college catalog
PGF 2162C Photography II
See page 101 of college catalog

PHI — Philosophy

PHI 1103 Practical Logic: A Course in Critical and Creative Thinking (T) 3 cr.
This course is designed to develop fundamental skills in critical and creative thinking. It stresses the practical application of logical concepts such as the ability to recognize, evaluate, and analyze the thinking of others by analyzing language, evaluating evidence, and criticizing and avoiding illogical or illogically thinking, and the ability to solve problems, make decisions, and create arguments. The course, thus, promotes clear and creative thinking. Three contact hours.

PHI 2019 Introduction to Philosophy (T) 3 cr.
Prerequisite: ENG 1107 or satisfactory score on placement test. This course consists of an introduction to philosophical ideas organized, at the most basic, on a historical basis. The course examines 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 assignments. Three contact hours.

PHI 2010 Introduction to Logic (T) 3 cr.
This course provides a general introduction to logic that combines approximately equal emphasis on the use and meaning of language, deductive reasoning, and inductive reasoning. Some primary objectives are to provide the student 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 1010 or satisfactory score on placement test. This course is a survey of the efforts made by philosophers to comprehend the nature of experience that is consistent 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 assignments. Three contact hours.

PHY 1020 Physics for Liberal Arts (T)  3 cr.
Corequisite: MAC 1081 or equivalent. This course is a general education course for the non-science student. This course is a general education course for the non-science student and therefore could be fulfills the science requirement for some liberal arts programs. It is a survey of the physical environment as applied to mechanics, electricity and magnetism, and modern physics. Three contact hours.

PHY 2048C Physics I with Calculus (T)  3 cr.
Prerequisite: MAC 2311 Corequisite: MAC 2312. This course is designed for students majoring in physics, chemistry, and engineering. It includes mechanics, conservation principles, rotational and harmonic motion, heat, thermodynamics, and waves. Laboratory work will illustrate important principles and develop techniques. Seven contact hours: four lecture hours; three laboratory hours.

PHY 2049C Physics II with Calculus (T)  3 cr.
Prerequisite: PHY 2048C Corequisite: MAC 2312. This course is a continuation of PHY 2048C. It includes electricity, magnetism, light, and some areas of modern physics. Laboratory work is similar to that of PHY 2048C. Seven contact hours: four lecture hours; three laboratory hours.

PHY 2053C General Physics I (T)  4 cr.
Prerequisite: MAC 1114 Corequisite: MAC 1114. This course is designed for those students who are majoring in pre-med, physical therapy, pre-chemistry, pre-dental, pre-veterinary, biological sciences, technology and geology science problems. Subject matter includes mechanics, heat, and thermodynamics. Six contact hours: three lecture hours; three laboratory hours.

PHY 2054C General Physics II (T)  4 cr.
Prerequisite: PHY 201C. This course is a continuation of PHY 2053C. It includes electricity, magnetism, light, waves (sound, light, and surface), and some areas of modern physics. Laboratory work is similar to that of PHY 2053C. Six contact hours: three lecture hours; three laboratory hours.

POS — Political Science

POS 2041 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. The course includes reading and writing assignments. Three contact hours.

POS 2112 State and Local Government (T)  3 cr.
This course includes a study of state and local forms of government in the United States, explores the governments of Florida as an example of activities and patronage 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 1041 Physical Science (T)  3 cr.
The student will benefit by taking high school algebra or MAT 1024 prior to enrolling in PSC 1041. 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. Participation 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 0410 Introduction to Reading Techniques (College Preparatory Course)  3 cr.
This reading 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. Individualized work provides self-paced practice in specific skills. This course does not apply toward the Associate Degree. Four credit hours; five contact hours.

REA 1105 College Reading Techniques (T)  3 cr.
Prerequisite: REA 0410 or satisfactory score on placement test. This course is a college level reading course that emphasizes textbook reading techniques, learning strategies, vocabulary, and comprehension skills needed for success in college. Three contact hours.

REA 2205 Reading for Speed and Comprehension (T)  3 cr.
Prerequisite: REA 1105 or satisfactory score on placement test. This course is for college students, business and professional people, and other adults who would like to increase their reading rate, gain a higher level of comprehension, expand their vocabulary, and improve their test-taking skills. Three contact hours.
REE — Real Estate

REE 1100 Real Estate Appraisal (T) 3 cr.
This is an intensive course that has been developed to impart a broad understanding of real property appraisal concepts, as well as technical skills employed in the appraisal of residential properties and to give the experienced real estate person a basic knowledge of appraisal fundamentals. Three contact hours.

REE 1400 Real Estate License Law 3 cr.
The course covers a detailed explanation of Florida Real Property Law as contained in the Florida Real Estate Handbook. This course discusses the operation, requirements, and procedures of the real estate office. Three contact hours.

REE 2200 Real Estate Finance (T) 3 cr.
Prerequisites: REE 1100 or Real Estate Salesperson Registration Certificate. This course covers principles, concepts, and practices pertaining to real estate finance, including detailed information on legal aspects of mortgages, mortgage regulations, and collateral, as well as the sources of funds for real estate financing, lending, and insurance agencies. Three contact hours.

REE 2220 Home Mortgage Lending 3 cr.
This course approaches the subject from the viewpoint of the mortgage lender who seeks to develop a sound mortgage portfolio. The course presents a picture of the mortgage market, the acquisition of the mortgage portfolio, mortgage plans and procedures, mortgage loan rates and servicing, and the obligations of the mortgage loan officer. Three contact hours.

REE 2270 Mortgage Broker in Mortgage Lending 3 cr.
This course offers an introduction to the responsibilities and techniques of mortgage lending and the mortgage broker's role in the process. The course prepares the student for the Florida State examination to become a licensed Mortgage Broker. Three contact hours.

REE 2300 Real Estate Investment (T) 3 cr.
The student will be taught REE 1100 prior to enrolling in REE 2300. This course familiarizes the student with real estate capital investment fundamentals, depreciation, capital gains, and loss in addition to individual property, residential, commercial, and industrial property, office buildings, residential properties, and warehouse properties. Three contact hours.

REE 2410 Real Estate Law (T) 3 cr.
The course offers suggestions on the types of real estate documents, their form and content, and the mechanics of their use. It contains a full legal, detailed exposition of every aspect of modern real estate transactions. Three contact hours.

REE 2460 Real Estate Management 3 cr.
Prerequisite: REE 1100. This course presents a comprehensive coverage of property management, with emphasis placed on basic management concepts that can be applied to apartments, commercial buildings, shopping centers, and urban renewal projects, and also on creative management techniques for solving problems. Emphasis will be on the role of the management as a crucial aspect in the Institute of Real Estate Management's course RME 301 in the requirements toward Certified Property Manager. Three contact hours.

REL — Religion

REL 2130 Religion and Contemporary Culture (T) 3 cr.
This course introduces the religions environment in the United States since the Second World War with special emphasis on the period since the 1960s. Its purpose is to acquaint the student with the nature of religion as an American institution and the challenges it faces. The course is designed to acquaint students with the nature of religion as an American institution and the challenges it faces. Three contact hours.

REL 2210 Religious Thought in the Old Testament (T) 3 cr.
This course covers a study of religious thought and instruction in the Old Testament with attention given to the problems of authorship, date, historical setting, and critical evaluation. Three contact hours.

REL 2240 Religious Thought in the New Testament (T) 3 cr.
This course studies the life and teachings of Jesus and the beginnings of church life and thought as reflected in the New Testament. Three contact hours.

REL 2340 World Religions (T) 3 cr.
Prerequisite: ENG 1010 or satisfactory score on placement test. This course consists of a survey of world religions with emphasis upon Hinduism, Buddhism, Judaism, Christianity, and Islam. Three contact hours.

RET — Respiratory Therapy

RET 1024 Fundamentals of Respiratory Therapy 4 cr.
This introductory course covers basic respiratory therapy equipment, medical gases, and administration, and the respiratory therapy department. Four contact hours.

RET 1275 Clinical Skills for the Respiratory Therapist 4 cr.
Prerequisite: RET 1024. This course introduces the student to the terminology and equipment used in the respiratory care profession. Four contact hours.

RET 1284 Orientation to the Hospital Environment 4 cr.
Prerequisite: Permission of the instructor. This course provides the student with an introduction to the hospital environment. Four contact hours.
Respiratory Therapy Department, and the role and responsibilities of the respiratory therapist. Eight contact hours (clinical).

RET 2264 Ventilatory Management 4 cr.
Prerequisite: APB 1260 or permission of professor. This course introduces the student to the care of ventilators, including selection, use, and troubleshooting. Five contact hours (clinical).

RET 2272 Respiratory Therapy Clinical Applications 6 cr.
Prerequisite: APB 1260 or permission of professor. This course introduces the respiratory therapy student into the hospital departments and settings in which the student may be expected to work. Five contact hours (clinical).  

RET 2273L Clinical Seminar in Intensive Respiratory Care 1 cr.
Prerequisite: APB 1260. Corequisite: RET 2832. This course is a weekly seminar on current topics in intensive care. Three contact hours (clinical).

RET 2284C Clinical Seminar in Intensive Respiratory Care II (T) 1 cr.
Prerequisite: RET 2273L. Corequisite: RET 2284. This course is a continuation of the seminar in intensive care. Three contact hours (clinical).

RET 2414 Pulmonary Function Studies (T) 2 cr.
Prerequisite: APB 1260. This course introduces the student to pulmonary function techniques and the clinical significance of the data gained from these monitoring techniques. Two contact hours (clinical).

RET 2434 Arterial Blood Gases and Critical Care Monitoring 2 cr.
Prerequisite: APB 1260. This course introduces the student to arterial blood gas analysis and various techniques of monitoring the critically ill patient. Three contact hours (clinical).

RET 2714 Neonatal and Pediatric Respiratory Care (T) 3 cr.
Prerequisite: APB 1260 or permission of the professor. This course investigates the care of neonatal and pediatric patients. Three contact hours (clinical).  

RET 2832 Respiratory Intensive Care Practicum I 12 cr.
Prerequisite: RET 2284. This course provides the student with the essential clinical skills necessary to function as a competent respiratory therapist in the critical care areas. 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 areas. Twenty-four contact hours (clinical).

RMI — Risk Management and Insurance

RMI 1521 Principles of Insurance 3 cr.
This course will seek to develop principles that can be used in understanding insurance concerns, contracts, and practices. Three contact hours (clinical).

RMI 1512 Principles of Casualty Insurance and Surety Bonding 3 cr.
Prerequisite: RMI 1521. This course provides an introduction to the basic concepts of insurance, including marine insurance, surety bonding, and multiple-line coverage. Three contact hours (clinical).

RMI 1513 Principles of Fire and Allied Lines 3 cr.
Prerequisite: RMI 1521. This course provides an introduction to the basic principles of fire and allied lines insurance. Three contact hours (clinical).

RMI 1515 Principles of Property Insurance Adjusting 3 cr.
This course provides an introduction to the basic principles of property insurance adjustment, including claims handling, property lines, and multiple-line coverage. Three contact hours (clinical).

RMI 1516 Principles of Insurance and Liability Claim Adjusting 3 cr.
This course provides an introduction to the basic principles of insurance and liability claim adjustment, including claims handling, property lines, and multiple-line coverage. Three contact hours (clinical).

RIV — Radio — Television

RIV 2201C Introduction to Broadcasting (T) 3 cr.
This course provides an introduction to the technical, social, legal, and ethical aspects of radio and television broadcasting. Three contact hours (clinical).

RIV 2200C An Introduction to Television Production (T) 3 cr.
This course provides an introduction to the techniques and equipment used in television production. Three contact hours (clinical).
the basic operation of a television studio. The course will help students prepare for an entry-level position in a local TV station or production facility, as well as for continuation in a communications or journalism course of study. Four contact hours; two lecture hours; two laboratory hours.

RVV 2206C Broadcast Direction (T) 3 cr.
Prerequisite: RVV 1700C. This course, a continuation of RVV 2200C, is intended for broadcast majors. Main topic is the direction of TV programs. Four contact hours; two lecture hours; two laboratory hours.

RUS — Russian Language

RUS 1061 Conversational 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 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)

RUS 1101 Beginning Russian 1 (T) 3 cr.
This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and compositions. The course employs visual and auditory aids. Four contact hours; three lecture hours; one un-supervised laboratory hour.

RUS 1103 Beginning Russian 3 (T) 3 cr.
Prerequisite: RUS 1101 or equivalent. This course is a continuation of RUS 1101. Four contact hours; three lecture hours; one un-supervised laboratory hour.

SLS — Student Life Skills

SLS 1101 Dynamics: Student Success (T) 1 cr.
This course is designed to help students adapt and cope with a college environment. Included in the course are an overview and discussion of the institutions, personnel, regulations, resources, academic motivation, and methods of study to be successful in an academic environment. Each student is expected to attend a total of three credit hours. Particular topics emphasized are as follows: SLS 1101, Resources; SLS 1101, Academic Strategies; SLS 1101, Motivation. One contact hour per course.

SLS 1223 Stress in Today's Society (T) 3 cr.
This course is designed to acquaint the student with the nature, source, and scope of stress in today's society, the causes, and methods of prevention from a biopsychosocial perspective. The course also discusses general environmental and social stressors that affect all people regardless of degree. 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.
Emphasizes the development of discussion skills in four areas: (1) the formats of discussion; (2) the means of discussing, reasoning, and cooperative idea development; (3) basic leadership and participation conduct; (4) audience analysis and listening techniques. Three contact hours.

SOP 1302 Dynamics of Behavior (T) 3 cr.
This course consists of the 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 1336 Introduction to Sign Language (T) 3 cr.
This course introduces the student to basic syntax and vocabulary needed for normal communication. Upon completion of this course, the student will have acquired the ability to use the Manual Alphabet and approximately 1,300 signs. With emphasis on expressive skills, methodology will be basically laboratory in nature. Students will develop classroom teacher practice and to reinforce correct hand configurations and positions. Three contact hours.

SPA 1337 American Sign Language (T) 3 cr.
Prerequisite: SPA 1336 with grade of C- or better. 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 practice for receptive skills. Three contact hours.

SPC — Speech Communication

SFC 2449 Small Group Communication (T) 3 cr.
This course emphasizes the development of discussion skills in four areas: (1) the format of discussion; (2) the means of discussing, reasoning, and cooperative idea development; (3) basic leadership and participation conduct; (4) audience analysis and listening techniques. Three contact hours.

SFC 2591 Forensic Activity (T) 1 cr.
This course is comprised of directed participation in forensic activities with emphasis on individual speech events. This course includes activities involving a major session of Forensic. Three contact hours (study/leisure).

SFC 2600 Fundamentals of Speech Communication (T) 3 cr.
Prerequisite: ENC 1101 or equivalent. This course in speaking and listening skills. Emphasis is placed on the principles and procedures that promote effective communication. This course includes message composition involving ideas and information acquisition, determination of purpose, and analysis of audience. This course also includes message
transmitted involving vocal variations, articulation, and appropriate levels of language usage, and listening for both literal and critical comprehension. 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. 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)

**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 laboratory 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 composition and conversations planned to develop a basic active vocabulary and facility in communicating in written and spoken Spanish. The student will study customs in the history and culture of Spain and Hispanic America. Four contact hours; three lecture hours; one unsupervised laboratory hour.

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

**STA — Statistics**

**STA 2014 Introduction to Statistics (T) 3 cr.**
Prerequisite: MAC 1105 or MAC 1104, with a grade of "C" or better. This course is designed to introduce students to the fundamentals of descriptive and inferential statistics with a pronounced emphasis on inference. The major topics include frequency distributions, methods for analyzing sets of data, probability, probability distributions, estimation, confidence intervals, hypothesis testing, simple linear regression, and correlation. The probability and statistical skills measured by CLAST are among the skills taught in this course. Three contact hours.

**SUR — Surveying; Related Areas**

**SUR 1101C Surveying I (T) 3 cr.**
Prerequisite: MAC 1105, EPD 1101. The course is a study of the fundamentals of surveying with emphasis on distance measurement, leveling, angles, bearings, traverses, topographic data collection, and construction layout. The course includes related field work, computations, and drawing. Four contact hours; two lecture hours; two laboratory hours.

**SUR 2140C Surveying II (T) 3 cr.**
Prerequisite: SUR 1101C. This course is a continuation of Surveying I and includes a study of the theory and practice of surveying with emphasis on electronic distance measurement, topographic surveying, land surveying, surveying technology, and courses. The program of study includes lectures, computing laboratory, and field practice. Four contact hours; two lecture hours; two laboratory hours.

**SYG — Sociology, General**

**SYG 2000 Introductory Sociology (T) 3 cr.**
This course includes a survey of the scope, methods, and concepts of sociology, enhancing the student's awareness of social values, norms, groups, and other aspects of the social world. Three contact hours.

**SYG 2100 Social Problems (T) 3 cr.**
Prerequisite: SYG 2000. This course includes a consideration of major social problems which affect individuals and groups in industrial societies, with attention to American society. Three contact hours.

**SYG 2430 Marriage and Family (T) 3 cr.**
This course includes a sociological study of mate selection, courtship, marriage and child rearing, with special attention to the contemporary American family. Three contact hours.

**TAX — Tax**

**TAX 2000 Individual Taxes (T) 3 cr.**
Prerequisite: ACG 2001 is recommended. This course, recommended for Accounting, Associate in Science degree students, is a study of the Federal 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 supplementary forms. Three contact hours.

**TAX 2010 Corporate, Estate and Trust Taxes (T) 3 cr.**
Prerequisite: ACG 2011. This course, recommended for Accounting, Associate in Science students, is 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.

**THS — Theatre**

**THE 2000 Theatre Appreciation (T) 3 cr.**
Prerequisite: EN 1101 or satisfactory grade on placement test. This introductory course consists of the study of dramatic art as presented upon the stage. The course includes theatre organization, stage techniques, fundamental dramaturgy, and a survey of theatre architecture in Western civilization. The course includes reading and writing competencies. Three contact hours.
THI 2100 Introduction to Theatre History (T) 3 cr.
This course surveys theatre history and drama from the theatre's origins in ancient Greece to the present. Three contact hours.

TTP 2025 Drama Practicum (T) 1 cr.
This course consists of the planning and execution of production functions: scene construction and painting, props, costuming, lighting and other technical responsibilities. This course includes writing competencies. Three contact hours (studio/technical).

TTP — Theatre Arts

TTP 2110 Acting I (T) 3 cr.
This introductory course provides instruction and training in the basic concepts of acting, including methods, vocabulary, discipline, and exploration of the creative process through exercises in observation, awareness, and performance. The acting activities are intended as classroom assignments and do not require participation in other courses. Three contact hours.

TTP 2111 Acting II (T) 3 cr.
Prerequisite: TTP 2110 or consent of the instructor based on exhibition of necessary level of vocal skills and physical awareness. This course is a continuation of TTP 2110, and provides opportunities for experimentation with scripted materials; scenic study, analysis, audition and performance techniques. The acting activities are intended as classroom assignments and additional involvement in other productions. 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, regulations, 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 development leading to national legislation and federal regulation; division of territories, official descriptions, etc.; scope of authority of territorial associations; factors controlling traffic flows, basis for the 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 covers requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 1033 Carrier Liability and Claims 3 cr.
This course covers analysis of carrier liability for goods, rights, and liabilities of carriers, consignees, and consignors; claim procedures; claims 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 application of tariff regulations, construction and setting of tariffs (rate classification); freight rates and tariffs, special freight services, i.e., switching, terminal facilities, demurrage and storage, average agreements, reconditioning and diversion, various transit privileges; endorsements; warehousing and distribution, and materials handling. Completion of this course partially covers requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 1121 Rail Traffic 3 cr.
This basic course in rail and transportation includes development of the rail system, how various traffic is classified by each mode for transportation, and how to apply applicable rail tariffs. This course increases new rate clerks in selection of lowest cost that will provide required shipping service. Also included are rules of traffic, rate making principles, and use of shipping documents. Three contact hours.

TRA 1230 Material Handling 3 cr.
This introduction to the field of material handling includes an analysis of jobs and career 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 1905 Independent Study of Transportation (T) 3 cr.
This course introduces the student to the over-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 use acceptable thesis procedures. Three contact hours.

TRA 2020 Economics of Transportation 3 cr.
This course develops knowledge in the transportation industry: decisions of the courts and regulatory bodies, new technological developments, railroad management policies, adjustment of rates, public policy questions, and major problems relating to transportation. Completion of this course partially covers requirements for certification by the American Society of Transportation and Traffic. Three contact hours.

TRA 2033 Transportation and Traffic Management III 3 cr.
The course is the continuation of Transportation and Traffic Management I and II and covers general topics such as application of economics and tariffs, development of traffic, and the classification procedures. Completion of this course partially covers requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 2054 Transportation and Traffic Management IV 3 cr.
The course is the continuation of Transportation and Traffic Management I, II and III, and covers general topics such as 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 1010 General Zoology (T) 4 cr.
The student will benefit by taking APB 1151 or BSC 1011C or High School Biology prior to enrolling in ZOO 1010. This is a survey of the animal kingdom with emphasis on mammals, life cycles, evolution, organ systems, and phylegnetic relationships. A representative of each of the major groups will be discussed and compared. 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.

—1949 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.

—2949 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

BNC 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 0004 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 (DELA) Program college credit track. An individual educational plan is developed for each student in the subject 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 computation 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 Numerical System (SCNS), consistent with the college credit course assignments within SCNS.

To 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
CDA 0919  Auto CAD Seminar  CIS 0925
CGG 0055  State Child Care Worker Training Course  CHD 0103
CGG 0015  Day Care Administration and Supervision  HEY 0161
CGG 0020  Making Child Care Teaching Materials  HEY 0154
CGG 0040  Child Care Trainer  HEY 0153
CGG 0930  Child Care Seminar  HEY 0930
ECG 0060  Career Planning  SLS 0066
ETM 0014  Emergency Medical Technology Seminar  EMS 0095
ETM 0011  Basic Review Emergency Care  EMS 0091
ETM 0012  Advanced (Receives) Emergency Care  EMS 0091
ETM 0018  Basic Life Support  EMS 0065
ETM 0020  Basic Life Support Instructors  EMS 0731
ETD 0971  Drafting (I-Architectural Drafting)  ETD 0530
ETD 0972  Drafting (II-Civil Drafting)  ETD 0540
ETD 0973  Drafting (IV-Mechanical and Electrical Drafting)  ETD 0557
ETD 0974  Drafting (V-Computer Aided Drafting)  ETD 0520
ETD 0976  Drafting (I-General Engineering Drawing)  ETD 0970
EUF 0142  Fuel Higher Minimum Standards Course  FPP 0005
HON 0009  Weight Management  HCN 0015
INS 0700  Life Agent Qualifying Course  RMS 0110
MLS 0000 Parameters of Advances in Medical Technology  MLS 0030
MIS 0004  Machine Shop  PM 0202
MTR 0082  Preparation for Print Certification  PM 0181
MTR 0085  Preparation for Pipe Certification  PM 0185
MTR 0102  Oxygen- Acetylene Welding  PM 0111
MTR 0105  Oxygen- Acetylene Brazing and Bead Welding  PM 0112
MTR 0122  Basic Gas Metal Arc Welding  PM 0133
MTR 0123  Gas Metal Arc Welding Advanced  PM 0141
MTR 0124  Flux Core Arc Welding  PM 0231
MTR 0126  Gas Tungsten Arc Welding Basic  PM 0146
MTR 0144  Shielded Metal Arc Welding Pipe Downhill  PM 0157
MTR 0146  Gas Metal Arc Welding Pipe  PM 0173
MTR 0147  Gas Tungsten Arc Welding (TIG) Pipe and Tubing  PM 0171
NUR 0512  Nursing Seminar  NUR 0523
OST 0001  Office Procedures Applications  OIT 0031
SLS 0005  Job Seeking and Keeping Skills  SLS 0530
SLS 0010  Computer-Assisted Careers and Job Search Guidance  SLS 0053
WEL 0490  Oxygen-Acetylene Brazing and Bead Welding  MTR 0105
WEL 0495  Gas Metal Arc Welding Pipe  MTR 0146
WEL 0410  Basic Gas Metal Arc Welding  MTR 0121
WEL 0415  Flux Core Arc Welding  MTR 0124
WEL 0420  Preparation for Pipe Certification  MTR 0082
WEL 0425  Oxygen-Acetylene Welding  MTR 0101
WEL 0450  Gas Tungsten Arc Welding (TIG) Pipe and Tube  MTR 0147
WEL 0455  Gas Tungsten Arc Welding Basic  MTR 0125
WEL 0440  Gas Metal Arc Welding Advanced  MTR 0123
WEL 0443  Shielded Metal Arc Welding Pipe Downhill  MTR 0141
WEL 0450  Preparation for Pipe Certification  MTR 0085
Continuing Education Course Descriptions

All courses in the following list are taught each term. Class schedules are published prior to each term which show the courses that will be offered.

Career Advancement Courses

AAC 0040 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, corporations, 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 interpretations.

AAC 0120 Basic Accounting
A course designed as supplementary training to persons employed in a related field to acquaint the student with the complete bookkeeping cycle. Includes posting, posting financial statements, adjusting and closing books. Emphasis is given to inventory methods, special journals, control accounts, depreciation, and payroll methods.

ACT 0891 Air Conditioning and Refrigeration Theory I
This course is designed to teach job entry level skills. Topics covered include compressors, condensers, evaporators, receivers, measuring devices, basic cycle controls, refrigerant characteristics, refrigerant oils, basic refrigeration cycle, and personal and industrial safety.

ACT 0892 Air Conditioning and Refrigeration Theory II
Prerequisite: ACT 0891. This course is a continuation of ACT 0891 and is designed to teach job entry level skills. Topics covered include basic refrigeration cycle, accessories, piping dehydration, charging, discharging, installation procedures, multiple systems, troubleshooting, business ethics, employee and employer responsibilities, personal and industrial safety, and compressors.

ACT 0895 Piping
Prerequisite: ACT 0892. This course is designed to teach job entry level skills. Topics covered include piping, values, tubing, and safety.

ACT 0897 Basic Electricity and Schematics
This course is designed to teach job entry level skills. Topics covered include wiring diagram symbols, schematic wiring diagram circuits, schematic wiring diagram exercises, electric meter, alternating current fundamentals, single phase motor theory, single motor testing, motor protection, troubleshooting, and electrical safety.

ACT 0898 Applied Electricity and Schematics
Prerequisite: ACT 0897 or consent of instructor. This course is a continuation of Basic Electricity and Schematics and is designed to teach job entry level skills. Topics covered include heat pumps, gas and oil furnaces, electric furnaces, and water heating units.

ACT 0899 Applied Heating I
Prerequisite: ACT 0897 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include gas furnaces, gas controls, properties of gas, gas piping, gas combustion, gas burners, ventilation and combustion air, and gas troubleshooting.

ACT 0901 Applied Heating II
Prerequisite: ACT 0899 or consent of instructor. This course is a continuation of Applied Heating I and is designed to teach job entry level skills. Topics covered include oil efficiency, oil heating, electric heat, and heat pumps.

ACT 0902 Heating Lab
Prerequisite: ACT 0891 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include electric heat, heat pumps, oil efficiency, oil furnaces, maintenance and troubleshooting, gas piping, and gas furnaces.

ACT 0903 Air Conditioning and Refrigeration Lab I
Prerequisite: ACT 0892 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include compressors, condensers, evaporators, receivers, measuring devices, basic cycle controls, refrigerant characteristics, refrigerant oils, basic refrigeration cycle, and personal and industrial safety.

ACT 0904 Air Conditioning and Refrigeration Lab II
Prerequisite: ACT 0903 or consent of instructor. This course is a continuation of Air Conditioning and Refrigeration, Lab I and is designed to teach job entry level skills. Topics covered include refrigeration cycle, accessories, piping, dehydration, charging, discharging, shop safety, installation procedures, multiple systems, troubleshooting, compressors, and personal and industrial safety.

ACT 0905 Applied Electricity and Electrical Lab
Prerequisite: ACT 0898 or consent of instructor. This course is designed to teach job entry level skills. Topics covered include building electrical control panels, wiring electrical components, and safety.

AER 0901 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.

AER 0902 Automotive Electrical Systems
This course is designed to teach job entry level skills in mechanics. Topics include instruction in engine electrical systems, starting systems, charging systems, accessory systems, basic emission controls, and an introduction to computer control systems. (Combination of classroom and shop experience)

AER 0903 Fuel and Emission Control Systems
Prerequisite: AER 0904 and AER 0902, or permission of instructor. This course is designed to teach job entry level skills in fuel systems and emission control systems, and also includes computer control and fuel injection. (Both lecture and shop experience)

AER 0910 Steering and Suspension
This course is designed to teach job entry level skills. Topics include service and repair of steering and suspension systems, power steering, wheels and tires. (Lecture and shop experience)

AER 0911 Brake Systems
This course is designed to teach job entry level skills in the theory, operation, and repair of brake systems. Includes both drum and disc
brakes, and also includes an introduction to anti-lock brake systems.
(Completion 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 and alignment, disc and drum brakes, (including computerized balancing, shock absorbers, McPherson struts, and major 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 and on-the-job training.

AER 0201 Automotive Body Welding (Repair)
Prerequisites: AER 026. 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, lead spraying and filling and cutting 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 included are: basic tools and equipment, body panel repair, power and hand equipment and panel cutting.

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, measurement, 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 included are: construction, measurement, damage and appraisal and straightening methods of frames.

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 techniques.

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, preparation 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 included are: equipment and paint identification, surface preparation, and finish and spot repair.

AER 0240 Automotive Glass and Sheet Metal Basics
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, doors and latches and basic glass tools.

AER 0241 Automotive Glass Removal and Replacement
Prerequisites: AER 0240. This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: removing and replacing doors, glass replacement, and panel 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, removal and alignment of headers and front bumpers, hoods and grilles, trunk lid and tail gate.

AER 0263 Automotive Body Repair Advanced
Prerequisite: AER 026. This course is designed to teach job entry level skills in automotive body repair and refinishing field. Topics included are: dent repair, sanding techniques, and paint, use of plastic body filler, and fiberbridging 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: body alignment, 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, carbs, gaskets and instruments. Special emphasis will be placed on safety.

AER 0601 Motorcycle Engine Systems
This course is designed to teach job entry level skills in the different types of motorcycle engines. Topics discussed included: 2-stroke, 4-stroke, motorcycle head, valves, and ignition systems, repair, lubrication, and drive systems. Special emphasis will be placed on safety.

AER 0602 Motorcycle Chassis
This course is designed to teach job entry level skills in the various parts of the motorcycle chassis. Topics include: frames, suspension, wheels, brakes, and suspension. Special emphasis will be placed on safety.

AER 0613 Electrical Cooling and Lubricating Systems
This course is designed to teach job entry level skills in the electrical cooling and lubricating systems of a motorcycle. Topics covered include: starters, batteries, regulators, timing, brakes, 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 components, engine performance and cycle of operation and an overview of combustion chambers. Special emphasis will be placed on safety procedures.
ARR 0777 Maintenance and Troubleshooting of Diesel Engines

This course is designed to teach job entry level skills in 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, cleaning and testing fuel injectors, solving engine problems, and test running an engine on a basis diesel engines. Valve, Owen, Yanmar, Western/Schebek/Penrod, John Deer and Mitsubishi engines.

ARR 0778 Maintenance and Troubleshooting of Diesel Engines II

Prerequisite: ARR 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 8V-71, Cummins 855 C.I.D. and Caterpillar 314C diesel of exhaust valve clearance, governor gage, no-load speed idle speed, injection pump valves and buffer screws. Injection timing, timing and adjustments will also be covered.

ARR 0780 Caterpillar Diesel Engine Overhaul and Repair

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 instrumentation. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

ARR 0781 Caterpillar and Diesel Engine Overhaul and Repair II

Prerequisite: ARR 0780 or consent of instructor. This course should be taken along with Caterpillar and Diesel Engine Overhaul and Repair I. It is designed to provide practical experience and job entry level skills in the overhaul of Caterpillar diesel engines. Topics include: engine assembly and run-in procedures and engine systems theory. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

ARR 0783 Cummins Diesel Engine Overhaul and Repair

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.

ARR 0784 Cummins Diesel Engine Overhaul and Repair II

Prerequisite: ARR 0783 or consent of instructor. This course should be taken along with Cummins Diesel Engine Overhaul and Repair I. 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.

ARR 0785 Detroit Diesel Engine Overhaul and Repair

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.

ARR 0786 Detroit Diesel Engine Overhaul and Repair II

Prerequisite: ARR 0785 or consent of instructor. This course should be taken along with Detroit Diesel Engine Overhaul and Repair I. It is designed to provide practical experience and job entry level skills in the overhaul and repair of Detroit diesel engines and their components. Topics include: engine systems theory, engine assembly and run-in procedures. Special emphasis will be placed on safety and manufacturer's overhaul procedures.

ARR 0787 John Deere Diesel Engine Overhaul and Repair I

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.

ARR 0788 John Deere Diesel Engine Overhaul and Repair II

Prerequisite: ARR 0787 or consent of instructor. This course should be taken along with John Deere Diesel Engine Overhaul and Repair I. 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.

ARR 0789 Driveability and Diagnosis

Prerequisite: ARR 0789 or permission of instructor. This course is designed to teach job entry level skills and provide skills in the diagnosis and repair of driveability problems. Areas covered will be engine, transmission, vibrations and noise, electronic components, computer and electrical systems. Emphasis will be placed on the use of manufacturers diagnostic charts and testing equipment. Lecture and shop experience.

AIC 0003 Air Conditioning, Refrigeration and Heating (Practicum)

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 are included. Experiential materials supplied by student. This course is designed primarily for off-campus supplementary instruction.

AIC 0331 Air Conditioning, Refrigeration and Heating

This course is designed primarily for apprenticeship instruction and its curriculum includes the proper procedure for install and service commercial and residential air conditioning systems, to compute heat gain and heat loss of buildings for summer and winter air conditioning, to diagnose and repair problems with commercial refrigeration systems and HVAC systems and troubleshooting and emergency repairs associated with air conditioning and heating equipment.

AIC 0510 Aircraft Powerplant Mechanics

This course is designed as supplementary instruction for persons already employed in the field in the related field. Instruction will include aircraft engines, maintenance procedures, and safety precautions associated with aircraft power plants.

AIC 0511 Aircraft Maintenance Mechanics

This course is designed as supplementary instruction for persons already employed in the field in a related field. Instruction will include aircraft maintenance procedures and safety precautions associated with aircraft mechanics.

AIC 0514 Aircraft Maintenance and Powerplant Mechanics

This course is designed as supplementary instruction for persons already employed as airframe or powerplant mechanics or related occupations. In-
struction will include theory, maintenance procedures, and safety precautions. Topics include mathematics, physics, basic electricity, aircraft hardware, materials and processes, and the use of handtools and measuring devices.

**AIO 0024 Advanced Instrument Training — Currency of Certificate**
A course designed for professional aviation pilots holding private or commercial licenses with instrument ratings to qualify for instrument flight currency using FAA approved ABC 610X flight simulators.

**APC 0011 Business English**
A study of the business letter, discimination in the use of words, spellings, review of grammar, punctuation, and development of language power. This course is designed for persons already employed in a related field for supplementary instruction.

**APS 0235 Des Waste Water Treatment Plant Operator**
This course is designed as supplementary instruction to prepare students to take the Wastewater Operator Examinations. The course based on 120 hours of instruction will cover collection systems, sedimentation, secondary process, tertiary treatment, disinfection practices, aeration, sludge disposal, laboratory test procedures, management, and communication skills.

**BPC 0070 Fundamentals of Computer Concepts**
The purpose of this course is to provide an overview of computers for today's world: what are they, what do they do, how they work, the hardware involved, the necessary components of an information system. The course will cover basic concepts about computers, the four common languages, the most common business applications, and the understanding of the basic terminology.

**BPC 0072 Introduction to Computers**
This course is designed for operators of small businesses 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, microcomputers, hardware and software and how they relate. Elementary problem solving, survey of programming languages including BASIC, hardware of computers, how to select and use computers in the home and in the small businesses.

**BPC 0085 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 a student with the basic foundation in the operation of microcomputers and establish the essential fundamentals of programming in the microcomputer BASIC computer language. With this knowledge, the student will be able to program simple applications and will be able to continue to expand skills through other programming courses of personal study.

**BPC 0090 Intermediate Basic for Microcomputers**
Prerequisite: BPC 0085 or equivalent programming experience. This course is designed for students who have completed the Basic Language for Microcomputers course or its equivalent, and is designed to enhance their understanding and programming skills utilizing the microcomputer. The
course covers topics such as Multilevel Tables, String Manipulations, Controlling the Screen, and Disk Input and Output operations. In addition, this course allows the student to gain "hands-on" experience and skill utilizing the campus microcomputer laboratory to reinforce the concepts presented in the classroom lectures.

**BDP 0810 Computer Programming: Training 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 one business as programmers. During this training the following areas will be covered: Business Correspondence, DTP Concepts and Terminology, Analysis and Design, Terminal Familiarity (CNS), Programming Languages, Basic JCL, and CICS. Other areas will include Group Process System Utilities and Data Communication Concepts. Enrollment is limited to physically disabled individuals admitted through a selective admission process. All entering students must take the STA Computer Programming Aptitude Battery.

**BDP 0810 Word Processing Software for Microcomputers**

**Prerequisite:** It is suggested that the student possess touch-typing 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 DisplayWrite II) that have become popular on both the APPLE IIe and IBM-PC microcomputers. This course will provide the student with the opportunity to create a letter or document, use appropriate edit and format commands, insert and delete text, print final copy with headings, footings, page numbers, and more.

**BDP 0820 Electronic Spreadsheet Software for Microcomputers**

**Prerequisite:** It is suggested that the student possess touch-typing 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 (VisiCalc-Advanced and SuperCalc III) that have become popular on both the APPLE IIe and IBM-PC microcomputers. This course will provide the student with the opportunity to build, edit, and manipulate a spreadsheet for financial analysis, project planning, budget projections, and "what-if" analysis.

**BDP 0830 Database Software for Microcomputers**

**Prerequisite:** It is suggested that the student possess touch-typing skills prior to registering for the course. This third course in a series of five is designed to introduce and supplement the background of the beginning student with a number of database software packages (DSS-Plus Report, 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 create and use a database file for entering information, retrieving information, modifying the file, producing reports, and information selection and extraction.

**BDP 0840 Business Graphics Software for Microcomputers**

**Prerequisite:** It is suggested that the student possess touch-typing 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 with a number of business graphics software packages (PFS-Graph, 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.

**BDP 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 (LOTUS 1,2, and 3, and FrameWord IV) that have become popular on the IBM-PC microcomputer. The course will provide the student with the opportunity to create an office environment in which data is exchanged among various business machines and in some cases may require using data files, spreadsheets, and documents, in addition to exchanging information among these functions without having to reenter the data or change magnetic media.

**BLR 0380 2D Blueprint Reading**

The course is designed to meet the needs of the employers and under-employed employees in the blueprint reading field.

**CAP 0315 Carpentry**

**Prerequisite:** This course is designed primarily for people who seek a career in carpentry and its related fields. The course does not include training in general carpentry work involved in the repair and maintenance of wooden structures. Instead, it focuses on teaching the skills required to build, cut, and assemble wooden structures.

**CAP 0355 EMP Carpentry**

The course is designed to meet the needs of employers and under-employed employees in the carpentry industry.

**CDA 0800 Computer Aided Drafting and Design**

This course provides supplementary training to persons employed in the field of drafting. The course will provide training in the use of computer-aided drafting (CAD) systems, including the use of software packages such as AutoCAD and SolidWorks. The course will cover the basics of CAD systems, including the use of software packages such as AutoCAD and SolidWorks.

**CEQ 0115 Operating Engineering**

This course is designed primarily for people who seek a career in operating engineering. The course does not include training in general engineering work involved in the repair and maintenance of mechanical systems. Instead, it focuses on teaching the skills required to operate and maintain mechanical systems.

**CGC 0025 Child Day Care Worker In-Service Training**

This course is designed to assist early childhood educators in improving the quality of their care of young children. The areas of training to be covered include curriculum, education, pupil development, and psychology.

**CGC 0045 Family Day Care**

This course provides additional training to licensed family day care home providers. The areas covered include child development and physical activity, health and safety, and nutrition.
CHD 0103 State Child Care Worker Training Course

The State Child Care Worker Training Course will provide instruction in the four following areas: state and local rules and regulations which govern child care, health safety, and nutrition; identifying child abuse and neglect; and child growth and development. The course is designed for those who are employed in child care centers.

CIS 0955 AutoCAD Seminars

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 course 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.

CJD 0201 Law Enforcement Recertification Training

This course is designed to meet 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, court control, and other areas as needed.

CJD 0461 Corrections Recertification Training

This course is designed to meet the recertification training requirements for certified correctional officers as established by the State Criminal Justice Standards and Training Commission. Areas of instruction and training include: human and community relations, first aid and CPR, supervision and management, firefighting, self-defense, court control, emergency vehicle operation, and other areas as needed.

CJT 0310 Basic Firearms Qualification Course

This course is designed for in-service individuals who must be certified to carry firearms but who have not completed a basic recruit (police, corrections, or auxiliary) course. Firearm instruction will include proper handling of the primary service weapon in the range, operational, and off-duty situations. Safety, loading, unloading, care, cleaning, and mechanics will also be covered. The course is in compliance with State Criminal Justice Standards and Training Commission requirements.

CJT 0312 Firearms Familiarization

This course is designed to provide in-service personnel basic firearms training to those organizations in need of training which do not fall under the Criminal Justice Standards and Training Commission requirements. Firearms instruction will include safety, handling, mechanics, loading, unloading, care, cleaning, and range procedures.

CJT 0313 Firearms Requalification

This course is designed for the quarterly 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 0422 Law Enforcement Refresher Emergency Vehicle Operation

This course is designed as a refresher for the basic 24-hour Verical 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, skid control and accident avoidance. This program may also be utilized to provide more advanced training in situations where special needs occur.

CIT 0114 Specialized Clothing

This course includes a combination of theory and laboratory and community 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 dyes, design details, designer patterns, filming and underlings, and special finishing techniques. The instructional activities include the construction of selected items such as bridal, evening wear, men's wear, children's wear, swimwear, lingerie, sportswear and fashion accessories. Concepts in management, quality, fabric selection, and customer and economic education are taught as they relate to instruction.

CIT 0517 Basic Clothing Construction

This course is designed as 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 modern sewing and press equipment, completion of a garment, and selection of suitable accessories.

CIT 0518 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 treatment and completion of a more extensive garment. This course includes study of pattern selection, including body measurements and simple alterations, fabric selection, and completion of a single garment.

CIT 0619 Basic Clothing Construction for Seniors

This course is designed as introductory instruction for senior citizens. 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 single garment.

CIT 0620 Intermediate Clothing Construction

This course is designed as supplemental instruction for homemakers who have completed Basic Clothing Construction, and includes study of more difficult construction techniques and of fabrics more difficult to handle than those used in Basic Clothing Construction.
CMP 0312 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 lined garment, such as a jacket, will be required.

CMP 0316 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 0317 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. Factory methods and the use of industrial machines will be emphasized.

CMP 0320 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, elements and principles of design, and the application 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 0340 Intermediate Clothing Construction for Seniors

This course is designed for senior adults who have completed Basic Clothing Construction for Seniors, or have already had basic sewing skills. It includes the use of more difficult patterns, learning to make pattern alterations, and completion of one garment using modern advanced techniques of sewing.

COR 0418 Basic Training for Correctional Officers

The basic training for correctional officers is designed specifically for job entry training and requires 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 related technical skills. NOTE: Course is restricted to individuals sponsored with intent of employment by area law enforcement agencies.

COR 0436 In-Service Corrections Training

This course is designed to provide supplementary in-service instruction in areas of corrections personnel. Specific areas of instruction include maximum security, institutional and non-security procedures, mechanics of search, fingerprinting, control of violent offenders, inter-personal communication, counseling and guidance, offender treatment, institutional and social welfare services, case load and report writing, first aid and life/safety.

COR 0309 Cosmetology

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 introduce, 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 practicing in the laboratory. Major concepts and practices introduced in COY 0309 will be continued. Intermediate skills will be developed on clients in the school-operated salon.

COY 0311 Cosmetology III

Prerequisite: COY 0309 and COY 0310 or consent of the professor. Theory and practices included in the course and 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 employment competency level.

DES 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 include a general survey of office management, dental procedures for the dental team, specific dental techniques, utilization 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 procedures, and expanded duties for the dental auxiliary.

DES 0020 Intermediate Current Dental Concepts

This course provides supplementary instruction for the practicing dentist, dental assistant, and as for details. Topics include a general survey of office management, dental procedures for the dental team, specific dental techniques, utilization 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.

DES 0030 Advanced Current Dental Concepts

This course provides supplementary instruction for the practicing dental health professional which may include the dentist, the assistant, and/or the dental hygienist. Topics include advanced survey of office management, dental procedures for the dental team, specific dental techniques, utilization 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 procedures, and expanded duties for the dental auxiliary.

DIM 0109 Diesel Engine Mechanics

This course is designed as supplementary instruction for persons already employed in the field or in a related field. Instruction includes theory, maintenance procedures, and safety precautions associated with diesel powered engines.

EER 0001 National Electrical Code Review

This course is designed for persons employed in the electrical field and provides a review of the code as included in the National Electrical Code. Review includes temperature connection, voltage drop, transform, circuit fill, motor circuit and service entrance calculations. Single and three-phase calculations are also covered.

EER 0005 AC/DC Transformers and Magnetic Motor Starters

This course is designed for persons employed in the electrical field and teaches the operating features, application, trouble shooting, and repair of magnetic motor controls.
EER 0010 Single and Polypehase Transformers
This course is designed for persons employed in the electrical field and covers transformer construction, operating characteristics, types, application, connections, and calculations.

EER 0015 Electrical Theory
This course is designed for persons working in the electrical field who have not had the opportunity to attend formal classroom instruction or for persons desiring to refresh their theory skills. Instruction includes the fundamental concepts of electricity.

EER 0220 Industrial Applications of Solid State Devices
This course is designed for persons employed in the electrical field and teaches the application of semiconductor devices used in today's industrial electrical equipment. These circuits will be explained in the classroom followed by actual experimentation with the devices in the lab.

EER 0225 Solid State DC Motor Drives
This course is designed for persons employed in the electrical field and covers the operation, adjustment, troubleshooting, and repair of common DC motor drives. These systems will be explained in both the classroom and laboratory.

EER 0240 Solid State AC Motor Drives
This course is designed for persons employed in the electrical field and covers the operation, adjustment, troubleshooting, and repair of common AC motor drives. These systems will be explained in both the classroom and laboratory.

EER 0415 Test Equipment
This course is designed for electricians in the field. Instruction includes the operation and use of analog meters, digital meters, oscilloscopes and other special measuring instruments.

EER 0440 Semi-Conductor Theory for Technicians
This course is designed for electricians in the field and teaches the theory and operation of semiconductor devices used in the electrical trade. These devices will be explained in the classroom and then the devices will be applied in actual circuits in laboratory experiments.

HLS 0112 Basic Electronics
This course is designed as supplementary instruction for persons already employed in the field or in a related field. The student will learn the proper procedure in the installation, maintenance, and repair of electronically controlled and operated distribution systems used in industry and commercial businesses.

ELS 0115 Selected Concepts from Electromechanical Theory: Circuits
This course is designed for students who have completed military electronics training schools and who wish to receive college credit. It is included in the Guide for Evaluation of Educational Experiences in the Armed Forces. The course includes selected topics from college course EET 1015C, 1025C, 2102C, and 2112C. It covers electricity, AC circuits, power electronics, solid-state AC circuits, power 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 complete the course and pass the test will be awarded Department of Defense Form 295 (Ap-

plication for the Evaluation of Educational Experiences During Military Service) to the Campus Registration Office will receive the appropriate credits.

ELS 0119 Radio Operators Training Course
This course is designed as supplementary instruction in radio operating procedures and FCC regulations so as to assist Amateur radio operators. It is included in the Internatinoal Morse Code and Basic Electronic Theory Course. The student may take the Novice Class Operator's License test upon completion of this course. Those passing the exam will receive their operator's license.

ELS 0390 EMP (Emission Mitigation Plan)
This course is designed to meet the needs of employers and employees in the marine/industrial electricity field.

EMS 0061 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 0120. This course is designed for persons already employed in a public service field and includes current techniques practiced by a First Level FMT providing emergency medical care. On successful completion of this course and the corequisite, EMS 0120, one is qualified to take the State Registry Exam for Emergency Medical Technician. EMS 0119 and EMS 0120 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 facilities. This course is corequisite to EMS 0119 and can be taken only in combination within this course.

EMS 0240 Vector Rescue
This course is designed as supplementary instruction and includes a review of various rescue operations and the use of extrication 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 the 2-year recertification by the Division of Health.

EMS 0391 Advanced (Rescue) Emergency Care
This course is designed as supplementary instruction and includes a review of all rescue procedures, extrication fluids 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 0521 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 2050 Changing Technology in Gasoline Vehicles
This course is designed to teach innovations and their repair procedures to prospective and current mechanics of gasoline vehicles. Specific emphasis will be placed on GM products and safety.

ETD 0160 Drafting I-General Engineering Drawing
This is the first course in an entry level job preparatory drafting sequence. The course consists of a study of the fundamental principles and practices involved in the preparation of engineering drawings. Emphasis is placed on the tools and techniques of drafting including layout, dimensioning, and multiple view representation.

ETD 0320 Drafting II-Computer Aided Drafting
This course is the fifth in the drafting sequence and covers the specific area of COMPUTER AIDED DRAFTING. The course introduces the student to the fundamentals of computer-aided drafting and design and provides the student with entry-level training in the use of CAD in a variety of technical drafting areas.

ETD 0330 Drafting III-Architectural Drafting
The course is the second course in the drafting sequence and covers the specific area of ARCHITECTURAL DRAFTING. The course provides the student with instruction in plan preparation, detail drawing, and the preparation of elevations.

ETD 0340 Drafting IV-Mechanical and Electrical Drafting
This course is the fourth course in the drafting sequence and covers the specific area of MECHANICAL AND ELECTRICAL DRAFTING. Emphasis is on the preparation of assembly and detail drawings of mechanical parts and also on the preparation of electrical drawings.

ETD 0340 Drafting III-Civil Drafting
This course is the third course in the drafting sequence and covers the specific area of CIVIL DRAFTING. Emphasis in the course is on the preparation of site plans, topographic and boundary drawings, plan and profile drawings, and land development drawings.

EXV 0311 Electrical Concepts and Safety
This course is designed to teach entry level skills in industrial electronics. Topics covered include wiring 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 entry level skills in recognizing and operating electrical-related hand and power tools. Topics covered include screwdrivers, wrenches, metal-cutting dies, cutters, crimpers, and power drives. Special emphasis will be placed on safety.

EXV 0313 Special Purpose Electrical Outlets
This course is designed to teach entry level skills in wiring and installation requirements for special purpose electrical outlets. Topics covered include ranges, dryers, washers, garbage disposals, 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 material, wiring, and installation of low voltage signaling, alarm/warning, and lighting control circuits.

EXV 0316 Conduit Installations
This course provides entry level training in installation requirements, bending methods, and calculations for electrical conduit installations.

EXV 0317 Electrical Switching Circuits
This course provides entry level training in wiring and installation requirements for typical electrical switching circuits and includes single pole, three-way, and four-way circuits.

EXV 0318 Outlets and Lighting Circuits
This course provides entry level training in wiring and installation requirements for typical electrical outlets and lighting circuits. The topics covered include incandescent, fluorescent, and recessed 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 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 entry level training in the operation, calculations, connections and installation requirements for polyphase transformers.

EXV 0322 Single Phase Transformers
This course provides entry level training in the operation, calculations and installation requirements for single phase transformers.

EXV 0323 Polyphase Distribution Systems
This course provides 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 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 a continuation of EXV 0324 and is designed to teach entry level skills. Topics covered include: wiring, connections, repair, and troubleshooting of A.C. and D.C. motors.
EXV 0325 Electrical Services
This course provides job entry level training in the material and installation requirements for overhead and underground electrical services.

EXV 0337 National Electrical Code I
This course provides job entry level training designed to teach the requirements of Chapters 1 through 4 of the National Electrical Code Handbook.

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 0332 Motor Controls II
Prerequisite: EXV 0331. This course is a continuation of EXV 0330 and includes instruction in basic motor control principles and practices.

EXV 0335 Blueprint Reading Electrical
This course provides job entry level training to enable the student to read and interpret electrical blueprints, in order to determine the requirements for electrical installations.

EXV 0336 Electrical Theory I
This course provides job entry level training designed to teach the principles of electrical theory. Topics covered include: voltage, current, resistance, power, series circuits, and parallel circuits.

EXV 0337 Electrical Theory II
Prerequisite: EXV 0336. This course is a continuation of EXV 0336 and provides job entry level skills in electrical theory. Topics covered include: voltage, current, resistance, power, series circuits, and parallel circuits.

EXV 0331 Mathematics for DC Electricity
This course is designed to teach entry level mathematics skills necessary for successful study of DC electricity. Topics covered include: fractions, ratio, proportion, scientific notation, basic laws of exponents, unit conversion systems - SAE, CGS, SI, English - linear, area, and volume measures, signed numbers, basic algebraic operations, linear equations and logarithms.

EXV 0312 DC Electricity
This course is designed to teach entry level job skills in basic DC electricity. Topics covered include: work, power, energy, basic atomic structure, electrical properties and units, source of electricity, Ohm's law, electrical measurements, use of measuring instruments, typical series, parallel, and combination circuits, Kirchhoff's laws, Millman's and Thevenin's methods, maximum power transfer, magnetism and motors, inductors, DC LRC circuits, capacitors and DC motor circuits.

EXV 0313 Mathematics for AC Electricity
This course is designed to teach entry level mathematics skills necessary for understanding the concepts in AC Electricity. Topics covered include: angular measurements in degrees and radians, angular velocity, basics of right triangle trigonometry, rectangular and polar vectors, combining vectors and applications of phasors in AC theory.

EXV 0514 AC Electricity
Prerequisite: EXV 0312. This course is designed to teach job entry level skills in basic AC electricity and practical AC circuits. Topics covered include: AC vs. DC, generating AC, waves - sine and rectangular amplitude and waveform measurements, phase relationships, reactive, AC reactive, capacitive and inductive circuits, transformers and polyphase systems. Laboratory experiences reinforce these course topics.

EXV 0515 Electronic Devices
Prerequisite: EXV 0514 or consent of instructor. This course is designed to teach job entry level skills in major semiconductor devices used in electronics. Topics covered include: vacuum tube basics, solid-state diodes, bipolar and field-effect transistors, thyristor devices and the fundamentals of integrated circuits. Laboratory experience is used to reinforce the course topics.

EXV 0516 Electronic Circuits
Prerequisite: EXV 0515 or consent of instructor. This course is designed to teach the basic principles of electronic circuits using analog systems and digital systems. Topics covered include: amplifiers, operational amplifiers, power supplies, oscillators, and AM/FM modulation techniques. Laboratory experience is used to reinforce the course topics.

EXV 0517 Mathematics for Digital Electronics
Prerequisite: EXV 0516 or professor's consent. This course is designed to teach job entry level skills in digital theory and circuit design. Topics covered include: numeric code conversion, Boolean algebra, and digital logic design.

EXV 0518 Digital Electronics
Prerequisite: EXV 0516 or consent of instructor. This course is designed to teach the basic principles of digital electronics and circuit design. Topics covered include: logic gates, combinational logic circuits, integrated circuit families, flip-flops and sequential circuits. Laboratory experience is used to reinforce the course topics.

EXV 0519 Test Instruments and Electronic Troubleshooting
This course is designed to teach entry level skills in the operation, calibration, and repair of electronic test equipment. An efficient approach to the diagnosis of electronic system malfunctions will also be taught. Laboratory experience will reinforce the course topics.

EXV 0520 Microprocessors
Prerequisite: EXV 0518 or consent of instructor. This course is designed to teach entry level skills in microprocessors. Topics covered include: computer assembly and work with microprocessors. Laboratory experience will be 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: study of basic laws, principles and applications of mechanical devices, force, power, machines and gears, hand and power tools and safe tool use.

EXV 0522 Motors, Generators and Transformers
Prerequisite: EXV 0114. This course is designed to teach entry level skills in the variety of AC and DC motors, generators and transformers typical in industry. Topics covered include: single phase and 3-phase
transmission and AC motors, generation of DC and AC, and DC motors.

EXV 0523 Basic Industrial Control
Prerequisite: EEX 0520 or consent of instructor. This course is designed to teach job entry level skills in measurement methods and control systems used by industry. Topics covered include: physical phenomena sensing, transducers, relay and relay logic, timing and timer delay methods and synchronization devices.

EXV 0524 Industrial Control Systems
Prerequisite: EXV 0523 or consent of instructor. This course is designed to teach job entry level skills in industrial electronics control. Topics covered include: digital motor control, manual magnetic sensors, relay logic, digital/analog and direct digital control and programmable controllers.

EXV 0525 Electronics Fabrication
Prerequisite: EXV 0515. Corequisite: EXV 0516 or consent of instructor. This course is designed to teach job entry level skills in electronics fabrication. Topics covered include: SPC and NASA soldering standards, printed-circuit boards and chassis assembly.

EXV 0559 Schematic Diagram Analysis and Interpretation
Prerequisite: EXV 0516 or consent of instructor. This course is designed to teach job entry level skills in interpreting schematic diagrams and wiring diagrams symbols. Topics covered include: troubleshooting, the reading of DC and AC circuits, and the troubleshooting procedure and the tracing of DC and AC signals through a system.

EXV 0561 Fundamentals of Radio Operation
This course is designed to teach job entry level skills in radio operation procedures and practice. Topics covered include: Federal Communications Commission rules and regulations and basic electronic theory.

EXV 0562 Local DDC Operation
This course is designed to teach job entry level skills in the basic operation of the ORC DDC Navigation receiver. Topics covered include: basic operation and troubleshooting tests.

EXV 0563 Advanced Troubleshooting Procedures for Marine Electronics
Prerequisite: EXV 0519 or consent of instructor. This course is designed to teach job entry level skills in advanced troubleshooting with relation to marine navigation. Topics covered include radio and two-way communication systems, the use of analyzers and various forms of data acquisition.

EXV 0564 Two-Way Communication Systems
This course is designed to teach job entry level skills. Topics covered include: the principles of two-way communication systems, navigation equipment, radio systems, remote base systems, broadcast systems and maritime radio communications.

EXV 0565 Basic FCC General Radiotelephone License Preparation
Corequisite: EXV 0564. This course is designed to teach job entry level skills in preparation for the Federal Communications Commission General Radiotelephone license examination. Topics covered include FCC required mathematics formulas and applications, basic amplifiers, power supplies and components.

EXV 0566 Advanced FCC General Radiotelephone License Preparation
Prerequisite: EXV 0565 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Basic FCC General Radiotelephone License Preparation. Topics covered include shipboard radiotelephone systems, antennas, and generators, radar and microwave principles, and television.

PCR 0410 Credit Administration
This course is designed to teach the supplementary training for persons employed in a related field, concern itself with a statement and discussion of factors influencing and determining loan policies. Methods of credit investigations and analysis, credit techniques, collection methods, specific credit problems, and regular as well as unusual types of loans, are outlined and discussed.

PCR 0411 Investments
Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, the supplementary training course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their creation and cyclity fluctuations. Drawing the influence of these factors on investment policy, the analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

PCR 0412 Bank Communication
In this course, the student is given an opportunity to study all phases of bank communication. The bank is directed primarily to the student already employed in the bank seeking to become proficient in, the communication field of the bank. This course will help prepare the student in proper procedures on the public, personal, and other communications. Having studied the basic principles involved in organizing and presenting a speech, the student is given suggestions to aid in developing speaking ability in such situations as conferences, panel discussions, radio, and television.

PCR 0413 Investments Securities
This course is designed as supplementary training for persons already employed in a related field. It helps the student understand the work involved with the preparation of the bank's securities, the nature of bank investment, and how a bank invests in the growth of other financial enterprises.

PCR 0414 Bank Teller Training
This course is designed as supplementary training to enable individuals to quickly function efficiently on the job as new tellers. Also, tellers with experience can strengthen specific skills and become aware of the professional aspects of their job. Teller training can improve performance and attitudes towards co-workers and customers.

PCR 0421 Banking Business Administration
In this course, emphasis is placed on the managerial responsibility and activities that affect the financial institution. It also serves as 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 the related field.

PCR 0424 Economics of Banking
This course is designed to teach 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 income and commodities. Also included are the basics of international economics and finance, and the limitations and related pitfalls of economics.

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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 business 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 statement of all up-to-date principles and also gives the student ample opportunity through examples, illustrations, and classified activities to learn 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 perspectives necessary for career advancement.

FCR 0433 Money and Banking
This course is designed specifically for supplementary training for persons employed in a related field. It stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply the student’s knowledge of the particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of lending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange yield curves and the structuring of par value.

FCR 0436 Banking Installation Credit
This course is designed specifically as supplementary training for persons employed in a related field. It consists of the techniques of installation 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 installation credit operation should be carefully scrutinized to be certain that the most 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 installation lending.

FCR 0437 Proof Operations/Financial Institutions
This course is designed as supplementary training to enable individuals to qualify function on the job as Proof Operators in financial institutions and retail establishments.

FCR 0440 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 qualities which are very important today.

FCR 0500 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 can strengthen their knowledge of financial services and human relations and abilities to cross-sell.

FCR 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.

FPP 0301 Firefighter Minimum Standards Course
This course is designed to prepare the student for certification and initial employment as a Firefighter in the State of Florida. Successful course completion will qualify the student to take the minimum standard written, oral, and practical examination as administered by the Bureau of Fire Standards and Training. Note: Course is restricted to individuals sponsored with intent of employment by a fire department.

FPP 0740 Fire/Rescue Basic Emergency Vehicle Operations (EVEC)
This course is designed in-service personnel engaged 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 simulators. The student will also receive instruction in the mechanical aspects peculiar to the piece of apparatus being used and in accident avoidance procedures. This course is designed to meet the training requirements for emergency vehicle drivers as established by applicable state laws.

FPP 0741 Fire/Rescue Refresher Emergency Vehicle Operations
This course is designed to serve both as an introductory and as a recertification course of study for in-service operation of fire and rescue vehicles. The curriculum will deal with proper driving techniques, including acceleration, braking, and curvature 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.
ium Standards Curriculum. Specific areas of instruction for this phase include an overview of the fire service, apparatus and equipment, fire chemistry and behavior, and tools and small equipment.

BF 0419 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 in fire department operations. In addition, selection criteria for instructors and utilization of training equipment will be presented.

FMC 0311 Office Practice
This course is designed specifically as supplementary training for persons in the enrolled field. Instruction includes filing, typewriter, adding machine, key driven and electronic calculator, duplicating (stencil and mimeograph), and basic record keeping.

FMC 0312 Office Machines
The type 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 EMP Industrial Supervisory Development
This course will be designed to meet the needs of employees and underemployed persons in industry.

FON 0003 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 practical application in the planning, preparing, and serving of meals and relating these meals to the other food for the week. It also aims to develop an understanding of daily dietary allowances for various age groups and the criteria for providing these. It includes information on foods with maximum nutritional 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 from prepared foods labeled "low calorie" or "diabetic" is opposed to non-diabetic brands. Ways to make low calorie dishes attractive and palatable will be emphasized. This course is specifically designed for homemakers.

FON 0010 Nutrition for Seniors
This course, developed especially for seniors, 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 a better health in the older adult and prevent illness often associated with poor eating habits.

FON 0020 Low Calorie Cooking for Seniors
This course is specifically designed for senior adults. The student will acquire knowledge and skill in planning and preparing foods recommended by physicians and the Heart Association for the older adult requiring diet low in cholesterol. Techniques for including these foods in family meals will be emphasized, considering individual preferences and specific needs of the older family members.

FON 0100 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 nutritive values, ingredients, methods of mixing, baking, storage and service of breads. Quick and yeast breads including dough, doughnuts and muffins will be emphasized, as well as breads of foreign countries. This course is designed as supplementary instruction for homemakers.

FON 0110 Specialized Foods
This course includes a combination of theory and laboratory and community experiences. Major concepts include aesthetics of food, planning, selecting, preparing, serving and storing foods for special occasions; foreign cookery; creative cookery; alternative ways of serving food; basic preparation methods; food garnishing; assembly of food preparation methods; and techniques in using specialized foods and equipment. Concepts in management, safety, new enterprise and consumer and economic education are taught as they relate to instruction.

FSM 0312 Quantity Cookery
This course is designed as supplementary instruction for persons already employed in the field, or in a related field. The student will learn proper procedures to improve the quality and quantity of food served. It includes principles and techniques of quantity food production. Actual preparation of food in quantity provides hands-on experience using principles and techniques learned. Trainers learn proper use and care of equipment, use of available serving tools to assure adequate portions, and gain experience in calculating and recording quantities of food used, adjusting and standardizing recipes for numbers to be served.

FSM 0314 Supervised Food Service Worker
This course is designed to prepare persons for employment in the food service area. The student will work, under supervision, in the preparation and serving food in institutions such as hospitals, hotels for the aged, nursing homes, children's homes, and day-care centers. Follows hygienic practices in preparing food for cooking, during the cooking process, serving and storing; follows safety regulations to use all types of equipment and handling of hot foods; uses the basic skills required in preparation of standard large quantity recipes for vegetables, salads and dressings, milk, bread, egg, soups, sauces, fish, desserts, quick breads, sandwiches and desserts served hot or cold in a variety of institutions. The student will organize work in relation to work space and within time limitations.

FSM 0317 Basic Food Preparation
This course is designed for homemakers to include purchase procedures, use, care, storage and arrangement of equipment and management of human material resources. Specialized services include experiences in planning, preparing, and serving food for a variety of occasions.

PSM 0320 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 foods; purchase, use and care of equipment. Management of time and money; sanitation and safety; decoration and service of foods for special occasions. Special activities include field
FMS 0510 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, seafoods, poultry, vegetables, and desserts. Consideration will be given to budgeting, marketing, and storing foods, as well as table service for all occasions.

FMS 0514 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 stress employees in finding and solving problems of quantity food service. It includes characteristics of a good food service, and in place in the total education program with comprehensive overview of the principles of menu planning, purchasing, food preparation and service, equipment care and custard, 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 on the need for greater knowledge in operating school food services, to insure maximum benefits to the children and the need for continuous testing.

FMS 0518 Sanitation and Safety

The student will explore the scientific rationale for sanitation and safety practices which are enforced for good 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.

FMS 0521 Food Service Apprenticeship II

The student will acquire knowledge and skills needed by a professional cook in the food service industry, including restaurant cooking; steaks, soups, and salads; vegetable preparation and cooking; and other skills specified in the apprenticeship standards. Emphasis is placed on the methods of accident and fire prevention.

GMR 0310 Cashier/Sales/Checker

This course is designed specifically for job entry training. It includes instruction in the proper finger method of recording accounts on a cash register, property department sales, handle sales items, process personal merchandise order, handle cash, and balance cash drawers.

GRA 0310 Printing

This course is designed specifically for job entry training. It includes cutting of paper, stenciling, embossing, and other printing processes. Emphasis is placed on personal merchandise order, handle cash, and balance cash drawers.

HCP 0511 Home Health Aide

Prerequisites: Current Florida Nurse Assistant Certification or written recommendation from an employer certifying proficiency in basic Nurse Assistant skills, including oral and written communication. This course is designed for those who have previously been employed in the field. Emphasis will be placed upon the care of the client in the home environment. Family differences and ethical safe practices will be stressed.

HHS 0101 Skipper/Confectioner

Course work includes instruction in food service, techniques of handling fruits and vegetables, making cold, serving hot, and caterers. Care of skipper/chefs is also included. This course is designed for persons already employed in the field, or in a related field. It includes study of the principles of menu planning, purchasing, food preparation and service, equipment care and cleaning, sanitation and safety, personal cleanliness and grooming, and the value of a good working relationship between the organization and with the school community. Emphasis is placed on the need for greater knowledge in operating school food services, to ensure maximum benefits to the children and the need for continuous training.

HHS 0104 Interior Design

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. It includes the study of the principles of interior design and its effect on the architecture and the design of living spaces. Emphasis is placed on the need for greater knowledge in operating school food services, to ensure maximum benefits to the children and the need for continuous training.

HHS 0105 Advanced Interior Design

This course is designed as supplementary instruction for persons who have completed HHS 0104, Interior Design. It includes advanced study of the elements and principles of design.

HHS 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 drapery construction of various types of curtains and draperies, and selection and care of window treatments. Emphasis is placed on the need for greater knowledge in operating school food services, to ensure maximum benefits to the children and the need for continuous training.

HHS 0312 Furniture Upholstery

This course includes the selection of room materials and equipment, use of power equipment, knowledge of furniture, decoration processes, fitting the main cover, planning and preparing the fabric platform cover, planning and preparing the panel, outlets, and backings. This course is designed for persons already employed in the field, or in a related field. Course work includes instruction in drapery construction of various types of curtains and draperies, and selection and care of window treatments. Emphasis is placed on the need for greater knowledge in operating school food services, to ensure maximum benefits to the children and the need for continuous training.

HHS 0313 Advanced Upholstery

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. Course work includes instruction in drapery construction of various types of curtains and draperies, and selection and care of window treatments. Emphasis is placed on the need for greater knowledge in operating school food services, to ensure maximum benefits to the children and the need for continuous training.

HHS 0303 Child Care Worker

This course provides supplementary training to individuals who meet the criteria to be instructions of the HHS Statewide Child Care working course.
HEV 0151 Day Care Administration and Supervision
This course is for the individual who is working in a child care center or wishes to expand work in it to working in day care administration and supervision. Areas to be covered include setting up a program, personnel management, fiscal management, systems planning for day-to-day operations, public relations, evaluation, and human relations.

HEV 0154 Making Child Care Teaching Materials
This course is designed to teach students 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.

HEV 0910 Child Care Seminar
This interaction is a series of seminars designed as supplemental instruction for persons currently and/or previously employed in child care. These are in response to industry and/or community demand to be held at such times and in such locations to meet the participants' needs. Specific areas of interest will include: health and safety; nutrition; child transportation and safety; behavior management; working with parents; design and use of child-oriented space; program curriculum and activities for children; community, health and social service resources; child abuse; day care for multi-lingual children; working with handicapped children in day care; owner or operators training program; and CPR.

HFT 0110 Travel Agent
The supplemental course provides the student who is employed, or has previously been employed, in a related field with a better understanding of the many levels in the travel industry, including the operation of an agency. The geographic portion offers complete and accurate information in order to develop good travel skills, including complete profile sheets, exercises and maps tests. The dominate section contains detailed information on airline travel, abbreviations and codes, diagrams and construction techniques, and the details of making airline reservations and ticketing. Also, the procedures for pricing reservations, deposits, and procedures such as visas, passports, customs, and insurance. Computerization with access to the student with the types of computers and computer terminology used with a hardware training.

HOF 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 content includes: problems with electric power, plumbing emergencies, care and repair of doors and floor coverings, interior painting, wallpapering, furniture care and repair, miscellaneous repairs, tools needed, safety, and combating pests and fungi.

HOF 0002 Home Accessories
This course is designed as supplementary instruction and includes application of techniques and skills in making new or reworking used, accessory items for the home. Project possibilities: bedspreads, drapery designs, pillows, cornices, hangers, wall hangings, lamps, lampshades, curtains, window shades, hinges, waste baskets, storage boxes, candlemaking, candle holders, small knitted or hooked rugs, and other accessory furnishings in which an interest may be expressed by students.

HOF 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, centerpieces, bell pulls, tablecloths, favors, etc.

HOF 0005 Specialized Housing and Home Furnishings
This course includes a combination of theory, laboratory experiences and community experiences. Major concepts include: planning, selecting and installing, equipment, furniture, accessories and household textiles; furnaces; 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.

HOF 0010 Home Accessories for Seniors
This course is designed for those who previously have had experience in making or re-working used, and simple accessory items for the home. Projects: wall hangings, waste baskets, storage boxes, hook rugs, table runners, placemats, and other simple accessory furnishings in which an interest is expressed by the student.

HUN 0013 Weight Management through Fitness and Nutrition
This course is designed as supplemental instruction for students who acquire basic principles of nutrition, behavioral analysis, and exercise, and apply them to the development and implementation of a weight management plan. It is recommended and in some cases may be required that the student obtain medical approval prior to participation in the course.

IDS 0010 Basic Skills I
Corequisite: The first of a non-college job entry training course offered at the Downtown Campus, or permission of instructor. This course is designed to provide the basic academic skills necessary for completion of the first course of the occupational programs offered at the Downtown Campus. Following pretesting 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 of the occupational programs offered at the Downtown Campus. Following pretesting 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 pretesting 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 vocational preparation instruction. The student will be provided with an individualized program to upgrade their reading skills. The amount of hours vary by the student in a per-
ricular areas will depend on the scores achieved on the Test of Adult Basic Education.

IDS 0914 Basic Mathematical Skills
This course is designed to provide remedial preparatory instruction. The student will be provided with an individualized program to upgrade mathematical skills in arithmetic reasoning and fundamentals. The amount of time spent in a particular area will depend on the scores achieved on the Test of Adult Basic Education.

IES 0201 In Plant Training/Seminars
This course is designed as an individualized instruction for persons already employed in such fields as Building Trades, Metal Trades, Electronics, Marine Trades, and Automotive Trades. Courses will be offered in response to industry demands at such times and places as will permit maximum participation by interested groups.

IES 0541 Pre-Construction Skills
This course is designed to teach job entry level skills to carpenters. Topics covered include the building of roof, boxes, saw boxes, saw benches, and work benches. The course also will teach the use of the framing square and a review of marking drawings.

IES 0542 Wall and Floor Framing
This course is designed to teach job entry level skills in carpentry. Topics covered include framing and bracing of wall and floor frames.

IES 0543 Roof Framing I
This course is designed to teach job entry level skills in carpentry. Topics covered include basic styles of roofs and construction and framing of a gable roof.

IES 0544 Roof Framing II
Prerequisite: IES 0543. This course is a continuation of IES 0543. Topics covered include layout and construction of a combination roof.

IES 0545 Site Preparation and Layout
This course is designed to teach job entry level skills in carpentry. Topics covered include the main aspects of site preparation and layout of buildings and houses.

IES 0546 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.

IES 0547 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.

IES 0548 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.

IES 0549 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.

IES 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.

IES 0551 Understanding Leveling Instruments
This course is designed to teach job entry level skills in carpentry. Topics covered include the use of various types of leveling instruments.

IES 0552 Foundation Formwork
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 leveling instruments.

IES 0553 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.

IES 0554 Power Tools
This course is designed to teach job entry level skills in carpentry. Topics covered include the safe and proper use of power tools, such as electric saws, routers, and Sanders.

IES 0555 Interior Finish
This course is designed to teach job entry level skills in carpentry. Topics covered include the fundamentals of wall covering, door hanging, windows, stairs, and cabinets.

IES 0556 Hand Tools
This course is designed to teach job entry level skills in carpentry. Topics covered include the proper use and safety of hammers, chisels, screwdrivers, and saws.

IES 0571 Plumbing Concepts and Safety
This course is designed to teach job entry level skills in plumbing. Topics covered include the proper use and safety of hammers, chisels, screwdrivers, and saws.

IES 0572 Fittings and Materials
This course is designed to teach job entry level skills in plumbing. Topics covered include: various types of fittings, related materials, and piping, including copper, P.V.C., cast iron, polyethylene, steel, and pipes.

IES 0573 Isometric Piping Drawing, Basic
This course is designed to teach job entry level skills in plumbing. Topics covered include: single-line piping drawings in an isometric angle.

IES 0574 Advanced Mathematics for Plumbers
This course is designed to provide a year level skills in advanced mathematics for plumbers. Topics covered include: practical problems of developed length, volume, area, triangulation, and percentages.
IEA 0575 Valves and Fittings
This course is designed to teach job entry level skills in plumbing. Topics covered include: pipe, tee, elbow, and fitting valves, as well as various types of fittings and valves used in plumbing systems.

IEA 0576 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, sizers, and urinals.

IEA 0577 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 for sanitary and potable water systems.

IEA 0579 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 installations of fixtures and equipment.

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 applications, wet venting, common venting, condensation, venting, and loop of circuit vent. Code-specified sizing based on 3:1:1 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 in the student's construction drawings to illustrate each concept.

IEA 0583 Solar Domestic Water Heating Systems, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: the principles and techniques of using solar energy to maintain the water heating appliance used in present homes, including collector plates (panels), storage tanks, 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 potable water supply and distribution piping, routing and sizing of supply piping, and supports and hangers.

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: the design and layout of potable water systems according to proper principles of material type, size, and size. Also covered will be the locations of supply outlets and origins.

IEA 0587 Introduction to Mathematics for Apprentices
This course is designed to teach job entry level skills in plumbing. Topics covered include: mathematical techniques including measurement and fixture allowances. Skills in calculating fractions, decimals, and standard measurements will be reviewed. Practical problems in charting pitch and grade as well as volumetric calculations will also be covered.

IEA 0588 Plumbing Hand and Power Tools
This course is designed to teach job entry level skills in plumbing. Topics covered include: safety, operation of plumbing tools and equipment. Included will be: bench tooling, dies and machines, feeding and cutting tools, pressure testing, and installation tools, and many more.

IEA 0589 The Language of Plumbing (Terms and Definitions)
This course is designed to teach job entry level skills in plumbing. Topics covered include: trade-related words and terms that will be encountered 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: the repair and replacement of work or broken fixtures and valves. Remodeling and re-pipe procedures will also be reviewed.

IEA 0591 Repair - Drain Cleaning to Remodeling, Part II
Prerequisite: IEA 0580 or consent of instructor. This course is designed to teach job entry level skills and is a continuation of Repair Drain Cleaning to Remodeling, Part I. Practical problems and solutions will be covered as well as a general cost estimating segment.

IEA 0592 Advanced Isometric Piping Drawing, Part I
This course is designed to teach job entry level skills in plumbing. Topics covered include: isometric drawing and using multi-level and multi-view building and large scale commercial systems according to standards set by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

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 and is a continuation of Advanced Isometric Piping Drawing, Part I. ASCII 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 SSB, Part 1
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, SSB, Part II
Prerequisite: IEA 0594 This course is designed to teach job entry level skills and is a continuation of Plumbing Code SSB, Part 1. 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 SSB-LD-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 drawing and sizing, multi-level, multi-story, and large scale commercial buildings according to specifications in 10-D-9.

IEF 0301 Industrial Electricity I
Corequisite: IDS 0016. This entry-level program provides the student with the related study materials and instruction required to prepare for any one 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.

IEF 0315 Construction Electricity
This course is designed primarily for apprenticeship instruction, and its content will include the proper procedure for installation of wiring systems and lighting fixtures in buildings, including laying conduit, installation of switch panels, pulling wire, splicing, testing circuits, line construction, and performing other duties and jobs required of an electrician.

IEF 0317 Electric Wiring
This course is designed primarily for apprenticeship instruction, and its content will include the proper procedure for installation of wiring systems and lighting fixtures in buildings, including laying conduit, installation of switch panels, pulling wire, splicing, testing circuits, line construction, and performing other duties and jobs required of an electrician.

INS 0220 GU - Investments and Family Financial Management
This course is designed specifically as supplementary training and includes study of basic investment principles and their application to family financial management. Included are the subjects of yields, limited liability, home ownership, and analysis of financial statements. Also discussed are family budgeting, home ownership, home ownership, and aspects of other investment media.

INS 0228 GU - Pension Planning
This course is designed specifically as supplementary training and includes study of the basic features of private pension mechanisms, including the calculation, cost factors, and distribution of pension plans and tax-sheltered annuities.

INS 0239 LOMA - Fundamentals of Life Insurance
This course is designed specifically as supplementary training and includes study of the basic features of the different types of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of risk. The course also includes the planning of insurance sales, the calculation of insurance sales, and the calculation of insurance sales.

INS 0231 LOMA - Life Company Operations
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the sale of insurance, and the planning of insurance sales.

INS 0232 LOMA - Legal Aspects of Life Insurance
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of insurance sales.

INS 0233 LOMA - Life Insurance Accounting
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of insurance sales.

INS 0234 LOMA - Economics and Investments
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of insurance sales.

INS 0235 LOMA - Mathematics of Life Insurance
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of insurance sales.

INS 0236 LOMA - Office Administration - Agency and Home Office
This course is designed specifically as supplementary training and includes study of the basic features of life insurance organizations, the sale of insurance, the calculation of premiums, and the calculation of insurance sales.
INS 0237 LOMA - Advanced Life Insurance
This course is designed specifically as supplementary training and includes instruction to provide students with more detailed knowledge of life insurance and company operations. It is targeted primarily for career employees who wish to do intensive study in the business operations of a life insurance company and its more intricate characteristics. This course is considered to be a college-level offering and is divided into six parts. Part 3-5 are considered to be core subject areas and Part 6 is listed as a specialized field of interest.

INS 0255 CLU - Estate Planning
This course is designed specifically as supplementary training and includes a study of advanced subjects in life underwriting, emphasizing estate planning, disposition of property, administration of the property in trusts and estates, taxation of estates and gifts transfers, and the effective use of life insurance toward minimizing financial problems. Note: The CLU Course Examination must be taken last, concurrently with any remaining examinations in the ten-course series for which a candidate needs credit.

LA 0340 Basic Recruit Training for Police Officers
This basic course is designed specifically to provide job entry training to give each student the basic knowledge and understanding required to satisfactorily perform the duties and responsibilities of the peace officer person. Specific areas of instruction include constitutional and criminal law, criminal evidence, court organization and procedure, patrol procedures, criminal investigation, police community relations, traffic control, juvenile procedures, civil disorder, first aid, defensive tactics, and firearms training. Note: Course is restricted to individuals sponsored with intent of employment by area law enforcement agencies.

LA 0410 Specialized Law Enforcement Training
This course is designed to provide supplementary specialized instruction of area law enforcement personnel. Specific areas of instruction include numerous highly specialized subjects such as investigations of auto theft, burglary, counterfeiting, forgery, gambling, robbery and sex crimes, control of riots and violent civil disorders, civil law enforcement, explosives and incendiary devices, forensic pathology and autopsies, and tactical operations.

LA 0411 Basic Evidence Technician Course
This course is designed to provide basic pre-service supplementary specialized instruction for law enforcement personnel seeking to become technicians. Specific areas of instruction include crime scene procedures, collection, preservation and identification of physical evidence, crime scene photography, and laboratory procedures.

LA 0422 Crime Scene Investigation
The student is instructed in the operation of a precision breath testing instrument and the operational principles and design functional features. In addition, the historical, technical, and legal background surrounding chemical reactions discussed. The procedures for processing a suspect, gathering and recording evidence, and maintaining the chain of evidence are also presented. Note: This course is restricted to in-service law enforcement personnel seeking State (Florida) certification.

LA 0525 Police Instructor's Techniques Course
This course is designed to provide supplementary specialized instruction of area law enforcement personnel. Specific areas of instruction include the development of skills for police training, role versus concept training, the instructor's role, course development, demonstrations and the use of training aids, and evaluation techniques.

LA 0536 In-Service Law Enforcement Training
This course is designed to provide supplementary in-service instruction of area law enforcement personnel. Specific areas of instruction include numerous subjects such as incident investigation, arrest procedures, crime scene procedures, criminal law, first aid, firearm, human relations, juvenile investigations, investigation, organized crime, police discretion, patrol techniques, search and seizure, traffic law enforcement, and victim support reporting.

LA 0547 Auxiliary Law Enforcement Training
This course is designed to provide supplementary instruction of several categories of auxiliary law enforcement personnel, including police reserves, service technicians, civilian supervisors, the various specialized deputy, police explorer and backup enforcement specialists. Specific areas of instruction include basic law for police, administration of criminal law, investigations, patrol procedures, police community relations, civil disorders, traffic control, defensive tactics, firearms, first aid, and various areas designed for the specific mission of the auxiliary group.

MAM 0014 Distributive and Mid-Management Education Seminars
A series of seminars designed as supplementary instruction for persons already employed in such an area as insurance, real estate, transportation, banking, and hotel/motel/restaurant operations, to be offered in response to community and/or industry demand at such times and in such places as will permit maximum participation by interested groups.

MAM 0020 Floral Industry Management
This course is designed to upgrade employees in the floral industry. Emphasis will be placed on practical problems in the floral industry, including facility planning, merchandising, selling and marketing, personnel relations, advertising, and new design techniques.

MAX 0312 Brick and Blocklaying
This course is designed as supplementary instruction for persons already employed in the field, or who plan to enter the field. The student will learn proper procedures for laying brick, terra cotta, hollow tile, stone, and similar building blocks in the construction of walls, partitions, arches, fireplaces, chimneys, smokestacks, and other structures.

MAY 0513 Brick and Blocklaying
This course is designed primarily for apprenticeship instruction and its contents will include instruction in laying brick, terra cotta, hollow tile, stone, and similar building blocks in the construction of walls, partitions, arches, fireplaces, chimneys, smokestacks, and other structures.

MEA 0316 Medical Assisting
The medical assistant course of study is an intensive course designed specifically for job entry training and designed to orient the individual to a multitude of basic skills in the physician's office. Examples of these skills are receptionist practices and procedures, examining room techniques, and laboratory procedures. This course requires 1,000 hours, which includes...
clinical practice in the physician's office. Applicants must be able to type 35 words per minute.

MKA 0010 Sales Training
This course teaches supplementary skills and techniques used in selling situations. It is designed to make the student understand why, when, and how to respond to a customer's needs, interests, fears, objections, doubts, and wants. Upon completion of this course, the student continually should be aware of the interactions as they occur and through continued use of the skills will become a more effective communicator and sales representative.

MLS 0895 Correlations in Clinical Laboratory Disciplines
This seminar presents for clinical laboratory professionals the clinical aspects of disease, pertinent laboratory data and the correlation and interpreting laboratory procedures. The primary reason of the course is to expose participants to advances in a multiplicity of laboratory functions and improve their specialty skills and expertise.

MNA 0550 Warehouse Management
This course is designed to provide supplementary instruction for persons presently or currently employed in the warehouse management field as shipping and receiving clerks, packers, transportation agents, freight handlers, forklift operators, order clerks, stockers and CART operators. Topics covered will include: safety practices, forklift operation, quality inventory control, materials handling, human relations, math operations, communication skills, housekeeping and security, basic economic principles and administrative controls.

MSH 0960 EMP Machine Shop
This course is designed to meet the needs of employers and employeep employees in the machine shop industries.

MTE 0476 Surveyors' Math
This course is designed to teach persons employed as surveyors the technical mathematics concepts needed to upgrade their skill level.

MTE 0028 Marine Technology - Electricity Specialty I
Prerequisites: MTE 0010 or permission of instructor. This course is designed for job entry level training in marine electrical fields and includes instruction in basic DC theory, AC theory, small boat electronics, and introduces AC and DC motors and generators used in the marine industry. This course is a continuation of classroom and laboratory experience.

MTE 0029 Marine Technology - Electricity Specialty II
Prerequisites: MTE 0028. This course is a continuation of Electricity Specialty I. It is designed for job entry level training in marine electrical fields and includes instruction in reading schematic diagrams, use of wiring diagrams, AC and DC motor control operation, troubleshooting and repair of motor controls, distributive systems, and marine switchboard, and marine switchboard identification. This course is a continuation of classroom and laboratory experience.

MTE 0058 Marine Technology - Metal Fabrication Specialty I
Prerequisites: MTE 0030 or permission of the instructor. This course is designed for job entry level training in marine metal fabrication and includes instruction in the development of common shapes, machine and hand bending of metal plates and angles, the inscription of flanges, the layout and fabrication of air ducts, including parallel line development and triangulation. This course consists of classroom and laboratory experience.

MTE 0059 Marine Technology - Metal Fabrication Specialty II
Prerequisites: MTE 0058. This course is a continuation of Metal Fabrication Specialty I. It is designed for job entry level training in marine metal fabrication and includes instruction in basic tank welding required for fabrication of less common fittings using triangulation, parallel line and chainsaw development. This course is a combination of classroom and laboratory experience.

MTE 0070 Maintaining and Repairing Fuel Systems in Marine Diesel Engines
Prerequisites: MTE 0070 or permission 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, their flow, theory of operation, rebuilding fuel pumps, fuel injectors, speed control systems, and fuel supply pumps. The student will become familiar with various fuel system use equipment in terms of POP controls, fuel sender, and flow indicators. Special emphasis will be given to safety and manufacturer's training procedures.

MTE 0090 Marine Technology - Welding Specialty I
Prerequisites: MTE 0070 or permission of instructor. This course is designed to help prepare for job entry into the marine welding field and includes instruction in shop and welding safety, tool and equipment usage, metal characteristics, steels, electrodes, welding positions, and welding testing. arc, tungsten and oxyacetylene equipment and use are also covered. This course is a continuation of classroom and laboratory experience.

MTE 0091 Marine Technology - Welding Specialty II
Prerequisites: MTE 0090. 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 instruction in shielded metal-arc welding in the vertical position using E1100 and E7018 electrodes in mild steel plates. It will also cover oxyacetylene cutting. This course is a combination of classroom and laboratory experience.

MTE 0160 Adhesives
This course is designed to teach job entry level skills. Topics covered include Glues, Compounds, and Beddings.

MTE 0361 Fastening Materials
This course is designed to teach job entry level skills. Topics covered include Tapes, O-rings, and Sealant and methods of use.

MTE 0362 Paints and Coatings
This course is designed to teach job entry level skills. Topics covered include Primers, Oils, Waterproofers, and Application Techniques.

MTE 0370 Plants, Tools, Terminology
This course is designed to teach job entry level skills. Topics covered include plants, the offshore, labeling, bread tools, power tools, and terminology.

MTE 0372 Wood Materials
This course is designed to teach job entry level skills. Topics covered include Timber, Types, Grades, Sizes, and Finishing of Wood Materials.
MTE 0373 Fiberglass Materials
This course is designed to teach job entry level skills. Topics covered include Reins, Cloth Materials, Formulas, and Techniques.

MTE 0377 Fiberglass Boatbuilding
Prerequisites: MTE 0360, MTE 0370, MTE 0373. This course is designed to teach job entry level skills. Topics covered include Molds, Laminating Techniques, Fairing, and Release Agents.

MTE 0378 Fiberglass Boat Repair
This course is designed to teach job entry level skills. Topics covered include Materials and Methods of Repair or Replacement of Faulty Areas.

MTE 0381 Wooden Boatbuilding
Prerequisites: MTE 0361, MTE 0361, MTE 0370, MTE 0372. This course is designed to teach job entry level skills. Topics covered include Techniques, and Fastening.

MTE 0382 Wooden Boat Repair
This course is designed to teach job entry level skills. Topics covered include Surveying, Maintenance, and Replacement.

MTH 0383 Interior Joinerwork
This course is designed to teach job entry level skills. Topics covered include Framing, Insulation, and Trim Carpentry.

MTE 0384 Exterior Joinerwork
Prerequisites: MTE 0370, MTH 0370, MTE 0372. This course is designed to teach job entry level skills. Topics covered include Decks, Cockpits, Outrigging, Hitches, and Laminating.

MTE 0350 Welding and Boat Trailer Repair
This course is designed to teach job entry level skills. Topics included are: Introduction to basic arc welding, oxyacetylene cutting, sandblasting, shop equipment necessary to facilitate actual trailer repair and safety.

MTE 0352 Metals Shapes and Applications for Pipelayers
This course is designed to teach job entry level skills. Topics included are: Introduction to course requirements, shop equipment, safety, metal.

MTE 0354 Pipelayers’ Land Tools, Power Tools, and Shop Equipment
This course is designed to teach job entry level skills in recognition of safety and use of power tools and shop equipment.

MTE 0355 Measuring Pipe and Layout Methods I
This course is designed to teach job entry level skills. Topics are: pipe sizing, measuring offsets, determining fitting allowances, laying out offsets, taking accurate measurements for material requirements.

MTE 0356 Pipe Pattern Layout and Oxy-Acetylene Cutting
This course is designed to teach job entry level skills. Topics include: layout of metal joints, y-fittings, angulated elbows, and the selection and use of oxyacetylene cutting equipment.

MTE 0377 Blueprint Reading and Pipe Installation for Pipelayers
This course is designed to teach job entry level skills. Topics include: parts of a blueprint, symbols, handling and care of types. Scaling
MTE 0920 EMP Boating

This course is designed to upgrade skills for individuals in the boating industry and includes instruction in the basic concepts and construction of wooden and fiberglass boats. The course is a combination of classroom and laboratory experience.

MTE 0922 EMP Interior and Exterior Joinery in Boating

This course is designed to upgrade skills for individuals in the boating industry and includes instruction in planing, mortising, and roughing techniques for cabinets and decks.

MTE 0924 EMP Introduction to Marine Electricity

This course is designed to upgrade skills in marine engines and includes instruction in basic DC and AC theory. 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 in the marine electrical field and includes instruction in the layout and installation of cable aboard ships. This includes a combination of classroom and laboratory experience.

MTE 0940 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 for medium-small boats. The course includes a combination of classroom and laboratory experience.

MTE 0932 EMP Introduction to Marine Electronics

This course is designed to upgrade skills in marine electronics and includes instruction in theory, measuring devices, radiofrequency wave propagation, antenna, inductance, capacitance, 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 amplification, rectification, receivers, power supplies, transmitters, antenna systems, and modulation systems. The course is a combination of classroom and laboratory experience.

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 theory and computer circuits. The course includes a combination of classroom and laboratory experience.

MTE 0942 EMP Two-Stroke Marine Diesel Engines

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in two-stroke and four-stroke engines. The course is a combination of classroom and laboratory experience.

MTE 0944 EMP Maintenance and Repairing Diesel Engines

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the repair of diesel engines in marine diesel engines. The course includes a combination of classroom and laboratory experience.

MTE 0946 EMP Troubleshooting Marine Diesel Engine

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in repairing the simultaneous and troubleshooting engine complaint. The course includes a combination of classroom and laboratory experience.

MTE 0956 EMP Oxygen-Acetylene 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 oxygen-acetylene 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 in 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 E6018 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 in 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 E6018 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0964 EMP Pattern Layout for Marine Pipefitters

This course is designed to upgrade skills for individuals in the pipefitting field and includes instruction in blueprint reading, layout, and manufacture of pipe, branches, and reduced elbows. The course includes a combination of classroom lecture and laboratory experience.

MTE 0966 EMP Fittings Used in Marine Piping Systems

This course is designed to upgrade skills for individuals in marine piping and includes instruction in types of fittings, measurement, and fastening methods. The course includes a combination of classroom lecture and laboratory experience.

MTE 0970 EMP Basic Valves and Gauges Used in Marine Pipelining

This course is designed to upgrade skills for individuals in marine pipelining and includes instruction in types of valves and gauges commonly used in piping systems. The course includes a combination of classroom lecture and laboratory experience.
MTR 0974 EMT Basic Welding and Brazing for Marine Pipeliners
This course is designed to upgrade skills for individuals in marine pipelining and includes instruction in introductory back welding procedures and al-alumina fillers. The course includes a combination of classroom lecture and laboratory experience.

MTR 0601 Gas Metal Arc Welding
Prerequisite: MTR 0600 or consent of instructor. This course is designed to provide entry level skills necessary to make high quality gas metal arc welds in all positions on mild steel from 1/8 inch sheet to 1/4 inch plate single pass and multiple pass, using sheet metal arc transfer and to make high quality welded on aluminum using spot transfer.

MTR 0602 Oxygen-Acetylene Welding and Brazing
Prerequisite: MTR 0600. This course provides job entry level training in the welding field and presents technical information about oxygen-acetylene welding, brazing and arc welding. It includes 16 hours through 3/4 inch mild steel, 1/2 inch stainless steel, and copper pipe and fittings. Related information includes equipment operation and welding quality.

MTR 0603 Welding Basic
This course is designed to teach job entry level skills in fusing metal parts by means of welding rods and electric welding apparatus to fabricate metal articles or to repair damaged metal objects. It also includes instruction and training in manual and machine metal plate cutting.

MTR 0604 Welding Advanced
Prerequisite: MTR 0603. This course is designed to teach job entry level skills in fusing metal parts with welding rods and electric welding apparatus to fabricate metal articles or to repair damaged metal objects. It also includes instruction and training in manual and machine metal plate cutting.

MTR 0605 Shielded Metal Arc Welding Pipe (uphill)
Prerequisite: MTR 0604. This course is designed to teach job entry level skills in pipe welding nonferrous, weld quality, up to 2 inch diameter in the 3G, 5G, and 6G positions of mild steel pipe, and 1/2 inch diameter in the 6G position of mild steel pipe with backing rings in the 6G position.

MTR 0606 Gas Metal Arc Welding Pipe
Prerequisite: MTR 0604. 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. The course develops the manual skills necessary to produce high quality groove welds on 6 inch diameter steel pipe in the 3G, 5G, and 6G positions.

MTR 0607 Gas Tungsten Arc Welding (TIG) Pipe and Tubing
Prerequisite: MTR 0604. 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 of pipe and pipe welding and welding defects.

MTR 0608 Flux Cored Arc Welding Gas Tungsten Arc Welding (Basic)
Prerequisite: MTR 0604. This course is designed to teach job entry level skills in the welding field. Topics covered include flux cored arc welding and arc welding safety. Related topics include equipment operation and weld quality. It also provides training to develop the manual skills necessary to make high quality gas tungsten arc welds in all positions on mild steel, 1/2 inch diameter, and 1/2 inch diameter, using both direct and alternating current.

MTR 0611 Drill Press
This course is designed to teach job entry level skills. Topics covered include: safety, drill press, common drill press, and the operation and function of all accessories. The student will also receive instruction in safety, calculations, and set-ups for various materials.

MTR 0622 Shaper Series
This course is designed to teach job entry level skills. Topics covered include: safety, machine set-up, control of machine, facing, milling, polishing, boring, taper boring, thread cutting, internal and external drilling, turning, grinding, and grinding.

MTR 0623 Lathe Series
This course is designed to teach job entry level skills. Topics covered include: safety, machine set-up, control of machine, facing, milling, polishing, boring, taper boring, thread cutting, internal and external drilling, turning, grinding, and grinding.

MTR 0625 Basic Numerical Control (NC)
This course is designed to teach job entry level skills. Topics covered include: safety, machine set-up, control of machine, facing, milling, polishing, boring, taper boring, thread cutting, internal and external drilling, turning, grinding, and grinding.

MTR 0627 Measuring Tools
This course is designed to teach job entry level skills. Topics covered include: machine measurement in theory and manipulation in practice, the use of scales, inside and outside micrometers (English and Metric), inside and outside calipers, telescope gages, combination sets, and thread micrometers. Benchmark includes an examination by the American Society for Quality Control, or equivalent, and project programming.

MTR 0628 Vertical Milling
This course is designed to teach job entry level skills. Topics covered include: machine measurement in theory and manipulation in practice, the use of scales, inside and outside micrometers (English and Metric), inside and outside calipers, telescope gages, combination sets, and thread micrometers. Benchmark includes an examination by the American Society for Quality Control, or equivalent, and project programming.
MTR 0629 Surface Grinders
This course is designed to teach entry level skills. Topics covered include: procedures for mounting and removing wheels, turning and dressing a grinding wheel, grinding of a flat surface, grinding the edges of a work piece square and parallel, and grinding an angled surface.

MTR 0641 Basic Engine Parts/Engine Disassembly/Principles of Power
This course is designed to teach entry level skills. Topics covered include: engine parts identification, principles of power and engine disassembly.

MTR 0642 Cleaning Engine Parts
This course is designed to teach entry level skills. Topics covered include: cleaning the engine parts, cleaning products and methods of cleaning engine parts, with special emphasis on safety in the use of the machines and chemicals.

MTR 0643 Precision Non-Destructive Testing for the Automotive Trade
This course is designed to teach entry level skills in instrumentation used in the manufacturing of automotive engines.

MTR 0644 Identifying and Repairing Cracks
This course is designed to teach entry level skills in the identification and repair of cracks in automotive parts.

MTR 0645 Automotive Reconditioning Machines I
Prerequisite: MTR 0645 or consent of instructor. This course is designed to teach entry level skills in the operation of a machine used in the automotive machine shop: wheel head grinder, valve grinder, valve seat grinder, and the piston pin machine.

MTR 0646 Automotive Reconditioning Machines II
Prerequisite: MTR 0645 or consent of instructor. This course is designed to teach entry level skills in the operation of a machine used in the automotive machine shop: wheel head grinder, valve grinder, valve seat grinder, and the piston pin machine.

MTR 0647 Automotive Reconditioning Machines III
Prerequisite: MTR 0645 or consent of instructor. This course is designed to teach entry level skills in the operation of a machine used in the automotive machine shop: wheel head grinder, valve grinder, valve seat grinder, and the piston pin machine.

MTR 0648 Automotive Reconditioning Machines IV
Prerequisite: MTR 0645 or consent of instructor. This course is designed to teach entry level skills in the operation of a machine used in the automotive machine shop: wheel head grinder, valve grinder, valve seat grinder, and the piston pin machine.

MTY 0390 EMP Industrial Mechanics
This course is designed to meet the needs of employers and unemployed employees in the industrial mechanics field.

MTY 0395 EMP Hydraulics
This course is designed to meet the needs of employers and unemployed employees in the hydraulics industry.

NUA 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. This course requires 240 hours which is taught within an eight-week period.

NUR 0525 Nursing Student
This course is designed to prepare the student for the role of a registered nurse. The student will be introduced to current nursing trends and problems and will participate in the development of solutions in conjunction with instructors.

OFT 0311 Word Processing Applications
This course is designed to teach entry level skills. The course provides learning opportunities in the concepts and applications of word processing. It will include the selection and revision of documents, stored data, use of special features, tables and special functions. To ensure successful employment skills this course will cover Business English, Business Mathematics, Calculating Machines, Filing, Typewriting and Employability skills.

OFT 0611 Microcomputer Entry Training Skills
This microcomputer course is designed to develop high-tech information concepts and computer operation skills for entry-level employment. The attendees need no prior experience with personal computers to attend. The complete course consists of five modules: Disk Operating System and Microcomputer Hardware, Word Processing Applications, Electronic Spreadsheet Applications, Data Base Applications, and Programming in BASIC for Business.

PDE 0317 Jacksonville Drywall Installers and Painters Apprenticeship
This course covers the technical aspects of painting, paper hanging, and drywall finishing. The painting section covers methods of application of types of paint, surface preparation and material make-up and mixing. The paper hanging section covers wallboard and surface preparation. The drywall section covers tools and methods of application.

PMT 0111 Oxygen-Acetylene Welding
This course provides upgrading training in the welding field and presents technical information about oxygen-acetylene welding using 16 gauge through 3/16" mild steel, a mix of a metal and weld quality.

PMT 0112 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 16 gauge through 3/16" mild steel, 16 gauge stainless steel, and copper piping and fittings. Related information includes equipment operation and weld quality.

PMT 0113 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 skills necessary to
make high quality gas tungsten arc welds in all positions on 16 and 11 gage mild steel, 16 gage stainless steel and 11 gage aluminum, using both short and alternating current.

PMT 0134 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 produce high quality gas metal arc welds in all positions on mild steel from 1/8" to 1/2" plate single pass and multiple pass, using short circuit transfer.

PMT 0135 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 transfers.

PMT 0141 Flux Cored Arc Welding
This course provides upgrading training in the welding field and presents a thorough understanding of the flux cored arc welding process and arc welding safety. Related topics include equipment operation and weld quality.

PMT 0167 Shielded Metal Arc Welding Pipe Downhill
This course provides upgrading training in the welding field and presents a thorough technical understanding of shielded metal arc welding pipe downhill fundamentals and welding safety. The training develops the manual skills necessary to produce high quality welds on open root mild steel pipe in the 2g and 6g position using cellulose electrode and downhill travel.

PMT 0171 Gas Tungsten Arc Welding (TIG) Pipe and Tubing
This course provides upgrading training in the welding field and presents a thorough technical understanding of gas tungsten arc welding fundamentals, preparation and welding pipe and pipe welding defects.

PMT 0173 Gas Metal Arc Welding Pipe
This course provides upgrading training in the welding field and presents technical information on gas metal arc welding fundamentals, preparation for welding pipe and pipe welding defects. The training develops the manual skills necessary to produce high quality groove welds on 6 inch diameter mild steel pipe in the 2g, 5g and 6g positions.

PMT 0184 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 7/8" mild steel plate. Related information includes equipment operation and weld quality.

PMT 0185 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 3/8" schedule 80 steel pipe. Related information includes equipment operation and weld quality.

PMT 0202 Machine Shop
This course will include safe work habits, good workmanship, accuracy and job pride. Students will be urged to perform in up-to-date and modern methods of work operations. The course is designed to provide students with both the practical experience and the related information. Emphasis will be on drafting, blueprint reading and related mathematics. A step by step series of lessons will be presented throughout the course. Each student will be given a considerable amount of individual instruction along with constructive skills. The course is designed primarily for off-campus supplementary instruction.

PMT 0185 Plumbing and Pipefitter
This course is designed primarily for apprenticeship instruction and its comprehensiveness training in the assembly and installation of gas, water and waste disposal systems, including the cutting, turning, and threading of pipe, cladding and welding joints, and the installation of gas, water and sanitary fixtures and equipment with their supports, brackets, or hangers.

PMT 0350 EMP Plumbing
This course is designed to meet the needs of employers and underemployed employers in the plumbing industry.

PMT 0355 EMP Pipefitting
This course is designed to meet the needs of employers and underemployed employers in the pipefitting industry.

PRN 0310 Practical Nursing
This course of study is designed to prepare individuals within 12 months to 2 years to give direct care to patients in the hospital, nursing home, or home. A minimum of 1,200 hours is required to complete the program. Classes are admitted twice yearly. A high school education and an acceptable score on the aptitude test are required. The program is accredited by the State Department of Education and the Florida State Board of Nursing. Persons who successfully complete the course are eligible to write the State Board for Initial Examinations to qualify for registration to practice as a Licensed Practical Nurse and to use the title of LPN.

PFR 0010 Career Exploration and Guidance
This course is designed to assist the individual explore career options for either choosing a career or making a career change.

PFR 0015 Career Planning for Handicapped Students
This course is designed to assist handicapped students by enhancing their career planning skills and placement into FSCJ's courses and comparative employment. The two-week course (60 contact hours) is offered all year. The three phases of the course include: Orientation and Career Exploration, Testing and Placement, and Testing and Placement 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 studio-type and other cameras and training in the washing, drying, trimming, mounting of photographic prints, repairing prints, and covering imperfections and in surface finishing of prints.

RES 021 Real Estate Principles and Practices
This course is designed specifically for occupational preparatory training and is intended to present students with the knowledge and understanding of legal and ethical principles necessary for the real estate profession. The course will continue to elevate itself for the protection of the public to enable the real
estate practitioner to enjoy the privileges due to the practitioner by the
Florida Real Estate Commission. This course, when successfully com-
pleted, fills the educational requirement enabling an individual to apply
for the real estate salesperson's state examination.

RM 6010 Life Agent Qualification Course
The life agent's qualification course is designed to help prepare life
agents for state license exams and initial training. The course will consist of
forty (40) hours of classroom instruction in life insurance, health ins-
urance and annuities. A final examination covering life and health ins-
urance will be given at the end of each course.

ROO 0317 Apprenticeship Residential and Industrial Roofing
This course is designed to meet the needs of contractors and apprentices
in the residential and industrial roofing industry.

SEM 0010 Home Economics Seminar
Home Economics Supplementary Instruction Seminar are a series of
seminars designed to supplement instruction for persons previously
and/or currently employed in clothing/textile/design or food-related
operations which will be offered in response to industry and community
demand. The time and meeting places of the seminars 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.

SER 0300 Familiarization with Small Engines
This course is designed to teach job entry level skills. Topics covered in-
clude: familiarization with the small engine field, employer relations,
special tool applications, precision measuring and practical applications of
some electrical servicing equipment.

SER 0301 Product Familiarization
Prerequisite: SER 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 self-propelled lawnmowers and
riding mowers. Includes lecture and classroom experience.

SER 0305 Rider Mower Engine Repair
Prerequisites: SER 0300, SER 0301. Laboratory experience or permis-
sion of instructor. This course is designed to teach job entry level skills. Topics
covered include instruction and hands-on experiences on the tune-up pro-
cedure and maintenance repair on many lawn and garden equipment
model. It is required for the job entry level mechanic and completion
certificate.

SER 0306 Drive Systems
Prerequisite: SER 0301, SER 0301 or permission of instructor. This
course is designed to teach job entry level skills. Topics covered include
information about the drive system of riding lawnmowers, garden tillers, com-
pliance lawnmowers, and mower battery maintenance. Includes lecture and
classroom experiences.

SER 0313 Construction of Small Engines
Prerequisite: SER 0300 or permission of instructor. This course is
designed to teach job entry level skills. Topics covered include: necessary
familiarization with the working parts of a small gasoline engine, and at
the same time provide technical information on the operation of these
small engines.

SER 0361 Troubleshooting
Prerequisite: SER 0300. This course is designed to teach job entry level
skills. Topics covered include: troubleshooting problem areas on small
equipment.

SER 0381 Ignition - Systems
Prerequisite: SER 0300. This course is designed to teach job entry level
skills. Topics covered includes an in-depth study of the ignition systems
used on small gasoline engines: both classroom lecture and shop experience
on single and multi-cylinder engines.

SER 0385 Fuel Systems - Small Engines
Prerequisite: SER 0300. This course is designed to teach job entry level
skills. Topics covered includes an in-depth study of various small engine
fuel system including tanks, lines, filters, pumps, carburetors, governors,
classroom lectures and shop experience.

SHM 0315 Sheet Metal
This course is designed primarily for apprenticeship instruction and its
contents include training in bending, assembling, altering, repairing,
and Installing sheet metal articles and equipment.

SHM 0390 EMT Sheet Metal
This course is designed to meet the needs of employers and
underemployed employees in the sheet metal industry.

SLS 0005 Career Planning
This course is designed to assist students in exploring career options so
as to upgrade their present work status and better themselves. Emphasis
will be on developing self-confidence, increasing communication skills, life
directions and goals. Career, school and work options will be explored.

SLS 0055 Computer-Assisted Career and Job Search Guidance
This course will help students explore career options that lead to
upgrading their present work status, developing new interests and
educational institutions that provide upgrading opportunities. This course is
taught through the use of the CHOICES career guidance computer and will
require scheduled, on-line computer time.

SLS 0350 Job Seeking and Keeping Skills
This course will provide students with an understanding of the world of
work and will also provide students 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 trends, using job
sources, applying for jobs, writing a resume, interviewing and how to keep
a job once obtained.

SLS 0351 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 application, resume writing, interviewing skills, interpersonal relations for keeping the job.

STO 0520 Surgical Technician
This course 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 consists of theory and practice in the application and principles underlying the care of patients in the operating room. A certification 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 asepticized supplies.

STS 0110 Basic Business Shorthand
This course is designed specifically as supplementary training for persons employed in related fields. It is an introductory course in principles and skills of shorthand designed to meet the minimum standards of performance in shorthand transcription comparable to those in local business offices.

STS 0112 Intermediate Shorthand and Transcription
This course is designed for persons already employed in related fields 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 0145 CPS Review Course
This course, designed as supplementary instruction to prepare students to take the examination for Certified Professional Secretaries. A two-ten 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 segments for each of the areas will be established as needed within the term.

STS 1040 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 computerized automated equipment which includes record, playback, control and revise documents. Instruction in the layout and filing systems for automated equipment will be included.

STS 0309 Office Occupations I
Corequisites: IDS 0010. This course is the first of three sequential courses designed for entry-level training in the field of office occupations and includes typewriting, business English, record keeping, and shorthand.

STS 0310 Office Occupations II
Prerequisite: STS 0309 or permission of the instructor. Corequisites: IDS 0011. This course is the second in a series of three courses designed for entry-level skills in the area of office occupations and includes typewriting, business English, record keeping, and shorthand.

STS 0311 Office Occupations III
Prerequisite: STS 0310 or permission of the instructor. Corequisites: IDS 0012. This is the last course in a series of three designed for
### High School Diploma, GED and Adult Basic Education Courses

#### Adult High School Courses Number Changes (Term 872)

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### Adult Basic Education Course Number Changes

| JDS 001C | Adult Basic Education | ABE 0100 |

### GED Course Number Changes

| GED 001C | Communication Skills | GED 0502 |
| GED 001C | General Education    | GED 0500 |
| GED 001C | High School Review   | GED 0500 |
| GED 001F | GED Testing Skills Seminar | GED 0400 |
| MAT 001C | 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 0100 English for Speakers of Other Languages

The purpose of this course is to provide instruction to speakers of other languages who are classified as less than independent in English. The main goal of the program is the acquisition of English Communications Skills by the student.

AHS 0101 English 1

This course provides instruction in English language skills including reading, writing, speaking, and listening in the content areas of literature.

AHS 0102 English 2

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 and vocabulary necessary for comprehension of printed materials. Literature study emphasizes analysis of selections found in the world literature. The study of language includes grammar, mechanics, usage and other conventions of standard written English. The study of mass media includes an analysis of propaganda and persuasion techniques. Speech instruction includes analysis of effective techniques in oral presentations. The course includes composition instruction.
AHS 0105 English III
This course provides instruction in American literature and in English language skills. It provides a programmed approach to mid-level high school grammar and usage, effective sentence structure, capitalization, and punctuation. It is designed to give practice in writing multi-paragraph papers of various types, including documented papers. Reference and summarizing skills are also covered. Reading, speaking, and writing assignments will be related, when appropriate, to the study of American literature. Literature study includes the analysis of various examples of American literary works in various genres. Vocabulary study focuses upon verbal analogies and other patterns commonly found in standardized tests.

AHS 0106 English IV
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 examples of British literature. Writing experiences are structured to provide practice in realistic writing situations likely to be encountered beyond secondary school. Opportunities are given to students for extending their speaking and listening skills.

AHS 0105 Business English I
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 Communication, both oral and written language study with examples on practical applications of standard English mechanics and usage; vocabulary study with emphasis upon specialized vocational terminology, and interpersonal relationships in Business Environments through the study of literature.

AHS 0121 World Literature
This course studies selected works of western and eastern literature from ancient times to the present. The content includes discussion of particular cultures, as well as indicative world literature. Selections include fiction, non-fiction, and poetry. The course provides opportunities for writing both formal and informal papers based upon the literature.

AHS 0122 American Literature
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 and movements in America as reflected in its literature. Content includes the elements and characteristics of puritan, transcendental, romantic, realistic, naturalistic, modern, and contemporary movements. In addition, this course contains writing assignments based upon literature, emphasizing the development of insight, care, and critical judgement.

AHS 0125 British Literature
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 various literary movements in British literature. The content includes representative works of poetry, drama, fiction, non-fiction, novels, biographies, and literary criticism. Selections are from the following literary periods: Anglo-Saxon, medieval, Elizabethan, reformation, neo-classical, romantic, victorian, modern, and contemporary. The course provides students with opportunities for interpreting the literature through oral and written analysis.

AHS 0120 Functional Basic Skills In Communications
This course provides instruction for students to develop competencies in both the practical communication skills of reading and writing, as measured by the statewide student performance test. The student will learn how to function in a variety of business and social situations, to prepare a resume, write business and social letters, to 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
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, non-fiction and transition, mechanics of grammar and punctuation and spelling. Also includes are the skills needed for selecting and limiting a topic, arranging support, outlining, drafting, and revising.

AHS 0152 Writing II
Prerequisite: AHS 0151. This course extends the development of skills introduced in Writing I. It focuses on refining exposition and introduces analysis and persuasion. In addition, more, syntheses and figurative language are taught. A major emphasis is placed on the skills needed for revision. Personal writing techniques continue to be improved through practice of re-writing, drafting and improved editing.

AHS 0153 Remedial/Compensatory Writing Skills
This course will provide preparatory and remedial writing skills assistance to students who have not passed the State Student Assessment Test, Part I (SSAT I). This course will be counted as elective.

AHS 0201 General Science
This course provides experiences and activities to acquaint the student with the concepts of physical, life, and earth/space sciences.

AHS 0202 Earth/Space Science
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
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 uses, population dynamics, and major forms of energy.

AHS 0250 Anatomy and Physiology
This course provides students with exploratory activities in the structures and functions of the components of the human body.

AHS 0251 Botany (with Lab)
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 economic
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, inorganic 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, astrology, meteorology 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 session. This course will provide "hands-on" experiences as well as providing activities that will acquaint students with scientific procedures and equipment.

AHS 0300 Remedial/Compensatory Mathematics Skills III  High School Cr. 1
This course will provide remedial and compensatory mathematics skills assistance to students who have not passed the State Student Assessment Test, Part I (SSAT I). This course will be counted as an elective.

AHS 0301 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 stressed.

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 0303 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 proprietorship, payoffs, 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, profits and losses, payoffs, simple interest and compound interest. 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 0320 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 at 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 circles are emphasized. Additionally, special emphasis is placed on congruent triangles.

AHS 0323 Algebra II  High School Cr. 1
This course is designed as an extension of Algebra I with emphasis on fractions, fractional equations, quadratic equations, elementary trigonometry, ratio and proportion, and circles.

AHS 0401 American History  High School Cr. 1
This course is designed to place emphasis on political, economic, and social development of the United States from colonization to the present.

AHS 0402 American Government  High School Cr. 1/2
This course includes a study of political, economic, and social development of the United States from colonization to the present.

AHS 0404 World History  High School Cr. 1
This course examines the political, economic, social, religious, military, scientific, and cultural events that have affected humanity by covering the chronological development of civilization.

AHS 0405 Economics  High School Cr. 1/2
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 emphasis is to provide the students with an understanding of the forces of the marketplace by examining the effect on the system of their role as producer, consumer, investor, resource owner, voter, and taxpayer.

AHS 0500 Remedial/Compensatory Reading Skills  High School Cr. 5
This course will provide remedial and compensatory reading skills assistance to students who have not passed the State Student Assessment Test, Part I (SSAT I). This course will be counted as an elective.

AHS 0501 Reading I  High School Cr. 1
This is a diagnostic, prescriptive course in reading designed to begin at the student's level in rate and comprehension. Structural relationships, words in context, structural analysis, right words, and dictionary pronunciation and meaning are stressed in building vocabulary. Decoding sequence, following directions, and recognizing topics and main ideas are studied in building reading comprehension.

AHS 0502 Reading II  High School Cr. 1
This is a diagnostic, prescriptive course designed to develop the student's vocabulary and comprehension. Efforts are concentrated on developing reading skills essential for generalized high school materials. Group and individual instruction and a variety of instructional media are available to achieve a grade level of 10.5 in reading.
AHS 0661 Health I, Life Management Skills  
This course is a study of the human body. It also provides the student with the opportunities to develop and enhance critical life management skills necessary to make sound decisions and take positive actions for healthy living.

AHS 0701 Employability Skills  
This course provides those students entering the world of work with the basic knowledge needed to help secure a job, improve personal development, and increase the opportunity for job success.

AHS 0702 General Business  
This course provides the students with a basic understanding of general business practices as they relate and have application toward everyday business situations.

AHS 0706 Bookkeeping  
A course designed to provide meaningful business problems to the beginner level, to equip students with basic vocabulary skills, to provide students with an understanding of business forms and to help them develop proper work habits and attitudes.

AHS 0711 Typing, Personal  
This course is designed to assist students in acquiring mastery of the keyboard for job entry training and for personal use. Basic typing skills and applications include centering, tabulating, personal and business communications, themes, outlines, report manuscripts, and inventory measurements.

AHS 0712 Clerical-Typist  
Prerequisite: AHS 0711. This is a course designed to give students an understanding of important clerical functions performed in offices and to develop a comprehension of the application of these functions in related office procedures. Units covered will include basic skills for office jobs, processing data, mailing and shipping services, business filing, records management, receptionist duties, and telephoning and telegraph services.

AHS 0715 Shorthand, Personal  
This course provides opportunities for learning to write with speed in as short a period of time as possible. It aims primarily to meet the needs of individuals having note-taking responsibilities, including reporting and stenographic in community organizations, and other personal use activities.

AHS 0731 Child Development, Guidance and Care  
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  
This course is planned for the person who has had little or no experience in recently developed techniques in clothing construction and 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. The student will learn about the selection, use, and care of modern sewing and pressing equipment. The course culminates in the completion of a simple garment, and selection of suitable accessories.

In addition, the course prepares students to understand the social, psychological, and physiological aspects of clothing and textiles as well as the effect of consumer choices on the individual and family.

AHS 0745 Fundamentals of Interior Design Services  
This course includes a study of the ways in which attractive and livable interiors can be planned in relation to individual and family housing situations and incomes, choosing and combining color, design, and various materials, and wall, window, and floor treatments as they relate to other phases of decoration. Practical information concerning choice of furnishings and equipment will be included. This course may include construction of slipcovers, draperies, curtains, and bedspreads.

AHS 0761 Drafting, Mechanical  
This course provides instruction in drafting as a form of graphic communication in express ideas and convey information by means of geometric shapes, lines, and dimensions. The course includes, but is not limited to, the visualization of objects in three dimensions, preparation of working drawings, reading drawings and prints, using drafting tools and materials, and providing substantial practice in drafting techniques.

AHS 0801 Drawing and Painting I  
This course is a study of the fundamentals of drawing and painting, concepts of drawing principles and composition, and a study of techniques.

AHS 0821 Drama I  
This course provides an in-depth theoretical experience in planning and execution of production functions: scenery construction and painting, props, costumes, acting, lighting and other full technical responsibilities.

AHS 0822 Drama II  
This course provides intermediate development in the study and practice of the theatre arts. The content includes instruction in reading and interpretation of dramatic literature. Students will be introduced to mechanisms and mechanics of acting, including the following: scenery construction, costume and lighting design, as well as other facets of stagecraft, character analysis and portrayal, interpretive study of plays and production of plays.

AHS 0841 Chorus I  
This course includes both individual and group singing, with emphasis on vocal technique and experience that may be useful to the individual who participates in community musical activities.

AHS 0911 Advanced Reading  
This is a diagnostic, prescriptive, advanced reading course designed to increase reading speed and further improve reading skills and comprehension.

AHS 0915 Creative Writing  
This course develops analytic 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  
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

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 0943 Sociology

This course includes the study of cultural influence on our society, the forms, institutions, and the relationships between the sexes, racial 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 supremacy.

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, a continuation of AHS 0951, 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 I.

AHS 0953 Spanish I

High School Cr. 1

This course provides students with elements of grammar; with conversation and composition; and reading of Spanish texts.

AHS 0954 Spanish II

High School Cr. 1

This course is 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 I.

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 abilities in the areas of travel, vocational subjects, and self-enrichment to the students who do not desire a formal knowledge of grammar or literature as taught in the regular programs. The emphasis is on oral communication and useful everyday expressions.

AHS 0960 Health II, Personal Health

High School Cr. 1/2

Prerequisite: AHS 0901. This course is a continuation of Health I. Life Management Skills and continues the study of health as it applies to the individual student, their families and the larger 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 optimal level of physical fitness, acquire knowledge of physical fitness concepts, and acquire knowledge of the significance of life-style 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, 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 care and use 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.

CED 0100 High School Review

The High School Review (CED) 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 0200 General Education
Instructors in general education subjects, including elementary and secondary levels. This offering is designed to accommodate the needs of a class which contains individuals who are on the high school level.

GED 0300 GED Testing Skills Seminar
This course provides critical, to-the-point 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 philosophy, strategies regarding the exam, guidelines for successful test-taking in general, and an opportunity to discuss any questions they may have about the examination. The course includes a test structured similarly to the GED test.

GED 0301 Mathematics Skills
This course will provide preparatory and remedial mathematics skills assistance to students who have not passed the State Student Assessment Test, Part I (SSAT I).

GED 0302 Communication Skills
This course will provide preparatory and remedial communication skills assistance to high school students who have not passed the State Student Assessment Test, Part II (SSAT II).

Lifelong Learning Courses
The Open Campus Lifelong Learning Program at Florida Community College at Jacksonville provides courses and activities that address the individual development of adult learners and respond to community educational needs in Duval County.

The Lifelong Learning Program serves as a catalyst for:
...exploring relevant issues
...explaining timely ideas
...improving academic competencies, and
...providing opportunities for lifelong learners to reach their full potential.

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 FCCJ campuses, community schools, and other off-campus centers.

Registration is on a first-come basis.

LLL 0100 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 resolution of unnecessary stress and anxiety in their daily lives. An extensive bibliography of suggested readings will be provided.

LLL 0102 Opening Doors for the Widowed
Course discussions deal with specific topics to help the widowed cope with the emptiness of widowhood and restart life. Class topics include information on legal matters, adjustment to grief and other emotions, choosing a vocation or avocation, 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. Instructors are widows or those who have been widowed.

LLL 0200 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 material. The students will be guided through remembering their past, cataloging these memories into a filing system, using oral 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.

LLL 0201 Education for Parenthood
A series of classes for expectant mothers and fathers to study maternity care, parental adjustment, baby needs, and 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.

LLL 0202 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.

LLL 0203 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.

LLL 0204 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, bodies, and minds alert and active. It will provide instruction in one or more of the following areas: creative writing, drawing, painting, crafts, food preparation, needle skills, health, reality orientation, recreation, and use of leisure time.

LLL 0205 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.

LLL 0206 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 a particular phase of emergency cardiac care that either internally supports circulation and respiration, or it prevents a circulatory or respiratory arrest or insufficiency through prompt intervention. All trained persons may apply B.C.S.S. An Emergency Medical Services System (EMS) is a community-wide co-ordinated means of responding to sudden illness or injury. This course will teach one how to activate one's own community EMS system as well as what one may expect of the system. Each student will receive certification from the American Heart Association for successful completion of this course.
LLL 0207  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 to family members and helps improve the quality of life for those involved with the program.

LLL 0208  Physical Management and Stress Averigation
A therapeutic course designed for use in adult instructions. Its purpose is to increase students in methods of physical management and stress reduction or alleviation. The course will include instruction in body awareness, fine and gross motor activities, ways of dealing with stressful situations, and practical usage of one's resources in established groups.

LLL 0209  Taking Care of Your Body
A course which explores matters pertinent to physical and personal well-being. Topics will include consumer health, exercise, nutrition, stress reduction, heart disease, diabetes, cancer, contraception, menopause, rape, diet, the nausea of aging, health careers, and cardiovascular resuscitation.

LLL 0210  Weight Management
This course is designed to make the student aware of the reasons for overweight and to present methods to resolve overweight problems through a nutritionally sound diet. This course will help the student to develop better eating habits and a more positive self-concept. It will help to develop workable solutions to the student's individual problems. Individual attention will be given to each student in planning menus specified for particular needs, as well as providing nutritionally sound methods of food preparation.

LLL 0211  How to Stop Smoking in Five Days
This course is designed to demonstrate how an inattentive smoker can overcome the habit and stop smoking cigarettes by following a self-imposed five-day plan.

LLL 0212  A Growing Problem: Drug Use and Abuse
This course is designed to educate 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 abuse, as well as the problems of drug abuse in women, youth and senior citizens. Information relative to prevention and treatment of the problem will be included in this course.

LLL 0213  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 relationships with co-workers and others will also be considered.

LLL 0214  Total Wellness: A Holistic Approach to Good Health
This course is designed for senior citizens stressing the importance of caring for one's own health and assuming the responsibility. The course emphasizes the role of person; the physical, intellectual, spiritual, emotional, and social aspects of the individual are addressed and preventive techniques are demonstrated which lead to optimum well being.

LLL 0215  Mental Health First Aid
This course is designed to provide immediate stop-gap help to persons immediately in danger of committing suicide. The student will receive instruction on prevention of suicide, drug abuse, and other mental health disorders - includes identifying problems, recognizing, and responding to a crisis.

LLL 0216  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 rules and relationships, authoritarian relationships, and dating, qualifications and implications.

LLL 0300  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.

LLL 0301  Safety Education
This course is designed to cover the principles and information related to individual, home, and public safety.

LLL 0302  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.

LLL 0303  Crime Prevention
This course is directed toward the reduction and prevention of crime in neighborhoods, communities. Emphasis is placed upon each participant's particular problem and concerns relating to crime prevention. The program includes the history of crime prevention, components of the criminal justice system, and personal and home security measures such as locks, alarms, lighting, crimes against women and the elderly, and community involvement in crime prevention.

LLL 0304  Self Defense for Women
This course is designed primarily for women who want to learn the art of self-defense. Conditioning exercises, self-defense, and defensive techniques will be stressed. Training and information related to preventive measures to assure safety are included.

LLL 0400  Women in History
This course is designed for exploration of the images, experiences, contributions, and perspectives of women in various cultures from early times through the present. Women's roles will be emphasized from the pre-Greek period through the "Middle Ages," the Industrial Revolution, and 19th and 20th century developments in Europe, Africa, America and some other cultures.

LLL 0401  Divorce: A New Challenge
This course is designed to help divorced people deal in a positive way with their changing roles in society. Discussions will include issues such as the emotional impact of divorce, family relationships, single parenting, legal and financial issues, entering the work force or changing jobs, developing new personal/social relationships, and making individual plans for action.
LLD 0502 Assertive Communication Training

This course includes the theory and practice of assertive behavior, awareness of one's interpersonal rights, distinguishing among nonassertive, assertive and aggressive responses, practicing simple assertions as well as emphatic, negative feelings, and constructive assertion in interpersonal relations leading to coexistence and interpersonal effectiveness.

LLD 0403 Pre-Release Program for the Incarcerated

This pre-release program has been created to offer guidance and counseling for the incarcerated as transition from confinement to freedom. This program will provide the means for reintegration and readjustment of the offender back into the community.

LLD 0404Survival: Coping with Separation and Divorce

This program is designed as an open-entry, open-exit class for those who are contemplating or are in the process of divorce. Focus is on persons who are in immediate need of help. The program will offer emotional support and an opportunity to deal with issues such as crisis, loss, loneliness, anger, and guilt, and find new strengths. Options for referral services will be presented.

LLD 0405 Life Planning

This course is designed to provide the basic facts for understanding money from a simple workable budget through the potential of aggressive investments. Information will be made available by presenting everyday life occurrences including such topics as the meaning of joint ownership to wife as well as her spouse; what "gifts" are taxable and when and how to choose a safe but profitable investment, large or small. Other topics to be included will be budgeting, establishing credit, taxes, installment buying, insurance, real estate, wills, and trusts.

LLD 0406 Human Relations

A down-to-earth review of modern concepts in human relations including allocation of time, motivation, communication, race relations, and emotional stability to instill positive attitudes about living and working together.

LLD 0407 Foreign Languages

The purpose of this course is to provide students with instruction that will either introduce or reinforce fundamental skills in the target language and its culture developing communication skills and cross-cultural understanding. The course content may include, but not be limited to: listening, speaking, reading, and/or writing skills toward language fluency as well as an emphasis on intercultural awareness.

LLD 0408 Health

The purpose of this course is to provide students with opportunities to organize comprehensive health issues important to proper human development. The course content may include, but not be limited to: physical, social, and emotional development; family life, nutrition, safety, and first aid, prevention of diseases, consumer health, substance use and abuse, and community and environmental health.

LLD 0496 Science

This course is designed to provide students with experience and activities in the concept of physical and natural sciences. The content may include, but not be limited to: scientific processes, human anatomy and physiology, Earth and its changes, astronomy, chemical changes in matter, and energy and its changes.

LLD 0500 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.

LLD 0501 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.

LLD 0502 Parliamentary Procedure

This course includes study and practice of the principles and rules governing deliberative assemblies. It is designed to benefit state and local government, corporate and association officials in public affairs, and groups whose leaders have to work with public officials and in an environment where public officials and nonofficial participants operate.

LLD 0510 ART

This course will provide opportunities for students to explore and develop techniques in art. Students can expand their insights into the world of art through one or all of the various art media.

LLD 0540 Community Resources

This course is designed to provide timely information regarding the availability of community resources which might assist students in improving and enhancing their quality of life. This course may include, but not be limited to: providing tips on utilizing resource people, governmental agencies, associations, clubs, educational institutions, and exemplary programs in Duval County.

LLD 0550 Computer Education

The course will provide students with the opportunity to understand the capabilities, applications and implications of computers and microcomputer concepts. The course content may include, but not be limited to: computer components; terminology; problem solving; role and implications of computer in society, the use of commercially available software; and simple programming.

LLD 0560 Consumer Education

This course is designed to provide students with consumer information that will allow them to make informed purchases of products and services. The content may include, but not be limited to: consumer rights and responsibilities; interaction of the consumer and the economy; family lifestyles; successful financial planning; use of alternative resources; consumer credit, consumer buying, consumer legislation, and the effects of advertising.

LLD 0570 Dance

This course is designed to provide the student with opportunities to explore and develop techniques in dance. The content may include, but not be limited to: terminology; dance history; basic movements; dance forms (e.g., ballet, modern dance, tap, etc.); choreography; dance injuries and their prevention; performance; direction; and dance critique.

LLD 0580 Drama

This course is designed to provide a broad overview of the study and practice of dramatic arts. The course content may include, but not be limited to: the history of drama, its traditions, literature, theater operations.
L11 0600 Fundamentals of Art for Older Adults
This course is designed for senior adults. Emphasis will be provided in the fundamentals of art, encompassing composition, harmony, rhythm, balance, emphasis, proportion, line, form, texture, and color. The student may carry out projects using one or more of the following media: charcoal, crayons, pencils, pen and ink, oil, acrylics, watercolors, pastels, or even collage.

L11 0601 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. Gray, pastel, and colored pencils.

L11 0602 Watercolor, Acrylic, Oil Painting for Older Adults
This course is designed for senior adults. Media used in this course is limited to acrylic and oil painting. Instruction will be provided in techniques of watercolor, acrylic, and oil painting used in color theory. It will be helpful if the student has some previous exposure to fundamentals of art; however, instruction will include drawing and other basics.

L11 0603 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 silkscreen. Drawing, printing, matting, and framing will be included.

L11 0604 Choral Music for Older Adults
This course is designed for senior adults. Emphasis will be on group singing and performance. Some music history and music appreciation may be included. Group experience may be useful to individuals as they participate in other community musical activities.

L11 0605 Community Orchestra for Older Adults
This course is designed for senior adults. It provides an opportunity for older musicians to practice and perform in instrumental and vocal activities. It will accommodate people who want to learn to play an instrument as well as people who want to expand their existing instrumental skills. Any instrument is welcome; however, participants must provide their own. Public performances will be given periodically.

L11 0606 Playground Supervision
This course covers the basic instruction and concepts that parents or teachers need to guide the children's social, physical, and emotional development. It deals with after-school playground supervision of games, dances, materials, progression, and techniques in teaching games and rhythmic exercises, creative and imaginative play, and conflict resolution.

L11 0607 Assumptions Toward Death
Death poses questions of ultimate significance to us. Many people feel ill-prepared to face their own death or the death of a loved one. Through the exercises, students have the opportunity to explore their own mortality and express their feelings in a wide variety of ways. The question of death has taken on a new meaning in our country. A time when life processes can be sustained by medical technology when traditional religious beliefs are challenged. Toward the end of the course we will look at the funeral and burial practices of our day and explore ways that legal papers, insurance and financial arrangements can be prepared more economically and meaningfully.

L11 0608 Psychology of Awareness
This course is designed for senior citizens. It includes exploration, experimentation, and interaction designed to assist participants to a fuller and more satisfying sense of self, others, and environment through heightened appreciation of human and natural reality. Training and practice in emotional self-support and conflict resolution utilizing Gestalt and Transactional Analysis approaches.

L11 0609 Education - A Family Affair
This course is designed to assist parents of school age children with interpretation of school requirements, standardized test scores, courses of study, academic deficiencies, help with reading, writing, spelling, and mathematics for their children, and other school related problems. This course will include developing skills to help parents assist their school age children in study methods, learning habits, peer group relationships and coping skills necessary to succeed in school.

L11 0610 Human Sexuality
This course is comprised of a series of classes for individuals interested in the field of human sexuality. Education and learning experiences 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.

L11 0620 Humanities
This course will provide instruction which introduces students to the study of man's cultural heritage. Students will have an opportunity to explore, examine, and respond to the world from the earliest civilization through present day societies. The course may include, but not limited to, defining the humanities in relation to history, literature, religion, philosophy, art, music and architecture. An interdisciplinary approach may be employed to assist students in formulating their own values and understanding the influence of the humanities on their life, society and mankind.

L11 0640 Language Arts
The purpose of this course is to provide students with instruction in communications. The course content may include, but is not limited to, reading, grammar, spelling, writing, and the development of critical thinking and problem solving, and the study of classic and contemporary literature.

L11 0650 Media
This course is designed to provide opportunities for students to develop introductory skills in the use of various media. This course may include, but is not limited to, the identification of basic techniques in music, photography, and present information; the study of media; media research; self-study, and information processing; and the development of specialized skills in audiovisual production utilizing techniques, procedures, and equipment.

L11 0650 Mathematics
This course is designed to provide opportunities for students to review and reinforce their advanced basic mathematics skills. The course content may include, but is not limited to, geometry, whole numbers,
declined, fractions, percent, measurements, algebra, problem solving, knowledge and use of calculators, probability, statistics, and other higher level mathematical disciplines.

LL.0660 Music
This course provides students with opportunities to study music in its various forms and manifestations, develop an understanding of the elements of music, and build skills in its performance. The course content may include, but not be limited to, music appreciation and awareness, active participation in singing, listening, and playing instruments, care and maintenance of instruments, interpretation and composing.

LL.0680 Physical Education
This course provides opportunities for students to develop skills and acquire knowledge of physical and human development. The course content may include, but not be limited to, developing an understanding of the significance of lifestyle on one's health and fitness, skills needed for successful participation in lifelong physical activities, social competencies, and exercise safety awareness. Students may participate in specific forms of physical activity to enable them to develop skills and foster an appreciation through participation.

LL.0690 Safety and Driver Education
This course will provide information regarding safety and driver education. The course may include, but not be limited to, providing skills, knowledge, training, and information in securing one's personal safety in the home as well as self-defense and street safety. Further, this course may provide education on the use of various vehicles regarding operation and safe use of such vehicles.

LL.0700 Consumer Education Law
This course is designed to provide low-income residents with basic facts regarding the laws of civil living in a community. It has been organized to present the law in a comprehensive and easily understood manner. It will deal primarily with the laws that govern the lives of low-income and undereducated citizens. The course will assist these citizens to know what local help is available to them. This course is also designed to present positive attitudes toward and involvement in utilization of the American free enterprise system as it deals with labor, people, organization, and government.

LL.0701 Personal Money Management
This course is designed to assist students 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.

LL.0702 Home Economics for Senior Adults
This course includes topics which are designed to provide older 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, Home Clothing Instruction, Advanced Crafting Instruction, Food Preparation, Nutrition.

LL.0703 Getting It All Together on a Limited Income
This course is designed to assist persons in managing their lives and handling the stresses involved in surviving a very limited income. Practical information and discussions will cover topics such as smart shopping, budgeting, parenting, reserving contact with neighbors, caring for your body and launching a plan of action for life improvements.

LL.0704 Career Assessment and Guidance
An intensive eighty-hour course will be offered to individuals with immediate need to make a decision about returning to school, work or both. Emphasis will be on developing self-respect and confidence, effective communication skills, life situations, and self-actualization. Students will accept responsibility for their lives and become self-supporting. Resource writing, career fields, job training, job search, and interview techniques will be covered.

LL.0705 Everything You Want To Know About Solar Energy and More
This course is designed to inform the general public of the development and use of solar energy to provide insights for the general public to know what is available from solar energy and have a general understanding of the subject.

LL.0706 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 worthy use of leisure time will be explored. Implications of current social, scientific, economic, and political developments on the older citizen are studied.

LL.0708 Social Studies
This course is designed to provide opportunities for students to develop an understanding of how individuals, groups, governments, and economic systems relate to each other. The course content may include, but not be limited to, the study of the future, world cultures, civilizations, religions, world and United States history, political, social, and economic policies, and the development of American values and institutions.

LL.0800 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.

LL.0801 Continuing Education for Parenting
A course designed to help new parents cope with the unexpected problems which come in the care of a new baby, including child development, sibling problems, illness, family adjustments, and baby care. No one particular course of action is recommended, but many options are presented to the couples. Open discussions and exchange of ideas are encouraged.

LL.0802 Skills for Parents
This course will emphasize how to communicate better with your children and other people, too. Some of the skills that are considered are how to really listen, how to communicate your feelings, how to solve average problems in the family, and become prime motivators, educators, and watching of your children.

LL.0803 Single Parenting — Becoming a New Kind of Family
The course is designed to assist single parents in raising children alone. Active participation, discussions, and lecture will be used in covering
topics including children’s reactions to being from a one-parent family; parent-child communication; relationships with the absent parent; developing outlets for yourself; and developing a sense of being a complete family.

LLL 0804 Understanding Your Child
This course deals with specific issues and concerns that parents may have as they help their children grow and develop to their full potential. Topics to be covered include the child’s stages of growth and development, parent-child communication, discipline, helping your child learn.

LLL 0805 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 basic education skills.

Recreational Courses
(Self-Supporting Courses)

Florida Community College at Jacksonville offers Recreational courses on request from the community. These courses are supported by fees (self-supporting) and not funded by the state. The fee structure for these courses is calculated to cover the direct instructional cost of offering the course to the community. The list of available courses is included here. For more information call the open campus, 633-8421.

AAC 0810 Personal Income Tax Seminar
AIO 0810 Aviation Ground School-Private Pilot
AIO 0814 Aviation Ground School-Illustrated Rating
APD 0810 Chinese Painting
APD 0811 Ceramics I
APD 0812 Ceramics II
APD 0813 Pottery
ART 0810 Arts and Crafts
ART 0811 Decoupage
ART 0812 Watercolor Painting
ART 0813 Painting, Naturalism to Abstract
ART 0814 Shell Craft
ART 0815 Metal Sculpture
ART 0816 Macrame
ART 0817 Macrame II
ART 0818 Creative Art for Children
ART 0820 Sacred Glass Window Construction
ART 0822 Creative Ceramics
BCN 0800 Before You Build
BCN 0805 Remodeling
BCN 0810 House Building
BIO 0810 Genealogy - Discovering Your Family
BUN 0810 TV Communications
CCL 0810 Introduction to Nanotechnology
CLF 0810 Myers-Briggs Type Indicators
CLF 0820 Strong Campbell Interest Inventory
CLK 0811 Sewing for Soldering
CLK 0813 Creative Needlecraft
CLK 0815 Basic Sewing
CLK 0816 Advanced Sewing

CLT 0811 Beginning Crew Sailing
CLT 0813 Japanese Embroidery
CLT 0816 Fashionable Quilting
CLT 0817 Rug Hooking
CLT 0818 Rug and Weil Hangings
CLT 0819 Weaving
CLT 0821 Creative Wardrobe Planning
CLT 0823 Creativity in Fabrication
CLT 0828 Boutique Sewing
CSE 0830 How to Buy and Sell Your House
CSE 0831 How to Reduce Costs Around the Home
CSE 0832 How to Win Contracts
CSE 0833 Interviewing: Basic Techniques
CSE 0834 Mercury and Concentration
CSE 0836 Know Your Car
CSE 0840 Acting for Fun and Self Expression
CSE 0841 Art of the Amateur Magician
CSE 0842 Introduction to Theatre for Children
ENG 0811 Letter Writing
ENG 0810 Motorcycle Care and Repair
ENG 0815 How To Service Your Small Engines
FMT 0810 Massage I
FMT 0811 Massage II
FON 0810 Find for You
FON 0835 Health and Weight Control
FON 0831 Gourmet Foods
FON 0833 Microwave Cooking
FON 0835 Ellegant Entertaining
FON 0830 Advetures in Dining
FON 0831 Geology: The Study of Wine
FON 0832 Eat Smart
FST 0830 Cake Decorating
GRA 0830 Graphology (Handwriting Analysis)
GRA 0831 Calligraphy
HEF 0805 Flower Arranging
HEP 0810 Upholstery
HEN 0810 Yoga
HON 0810 Clothing Selection
HRT 0810 Basic Home Building
HUM 0810 Travel, Money Europe
HUM 0811 Introduction to Antiques
JEW 0810 Jewelry Crafting
IRI 0810 Fine Arts Enrichment Center Summer Program
LIS 0810 Reading for Leisure
LIT 0810 Book Review
LIT 0812 Women in Literature
LIT 0814 The Southern Literary Renaissance
LIT 0810 Sandal Making and Leather Construction
MET 0810 Meteorology for Amatuer and Scout
MRC 0810 Motorcycle Rider Course: Riding and Street Skills (MR/GRSS)

MUS 0810 Singing for Pleasure
MUS 0811 Piano Lab — Beginning
MUS 0812 Beginning Guitar
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

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