

College Credit Course Descriptions

Statement on Florida's Statewide Course Numbering System

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

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

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

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

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

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

General Rule for Course Equivalencies

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

First Digit

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

- 0 = college preparatory credit
(not for degree)
- 1 = freshman year
- 2 = sophomore year

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

Titles

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

Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. (For example, MAC-132, -133, -134). In these cases the subject matter topics may not be taught in the same sequence, course by course, in several institutions; however, upon completion of the full sequence at any of the several institutions, students have completed substantively equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

Explanation of Prefixes and Numbers

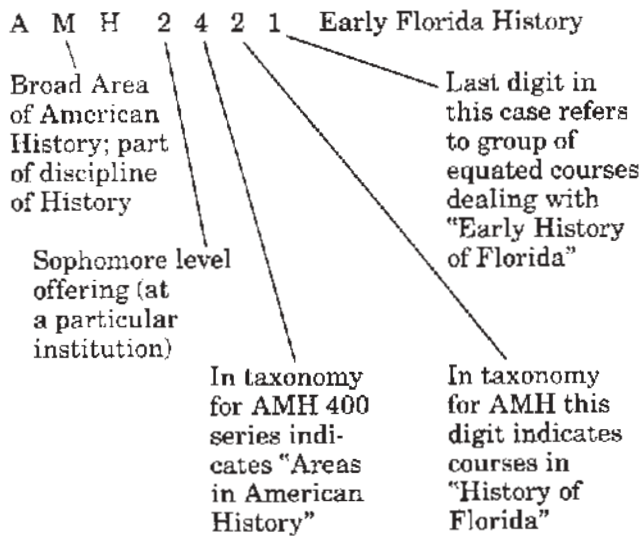
Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

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

History, for example, has several prefixes: AFH, African History; AMH, American History; ASH, Asian

History; ECH, European History; HIS, History-General; LAH, 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 2421, (not a current course at this institution):



(Local titles 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:

- All numbers which have a second digit of 9 (Ex: ART 2905) 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.
- All internships, practicums, clinical experiences and study abroad courses, whatever numbers they carry, are not automatically transferable.
- 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 Junior 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.

Classification Discipline	Prefix
Accounting	ACG
Advertising	ADV
Aeronautical Science	ASC
Air Conditioning and Refrigeration	ACR
American History	AMH
American Literature	AML
Anthropology	ANT
Applied Accounting	APA
Applied Biology	APB
Architecture	ARC
Art	ART
Art History	ARH
Asian History	ASII
Astronomy	AST
Automotive/Engine Repair	AER
Aviation Management	AVM
Aviation Technology Flight	ATF
Aviation Technology Maintenance	ATM
Aviation Technology Theory	ATT
Banking	BAN
Biochemistry (Biophysics)	BCH
Introductory Biological Science	BSC
Botany	BOT
Building Construction	BCN
Building Construction Trades	BCT
Business Law	BUL
Chemistry	CHM
Child Development	CHD
Clothing and Textiles	CTE
Comparative Politics	CPO
Computer Engineering Technology	CET
Computational/Numerical Methods	CNM
Computer and Information Systems	CIS
Computer Applications	CAP
Computer Concepts	COC
Computer Design/Architecture	CDA
Computer Programming	COP
Computer Resources/Management	CRM
Consumer Affairs	COA
Cooperative Education	COE
Creative Writing	CRW
Criminology and Criminal Justice	CCJ
Criminal Justice Development	CJD
Criminal Justice Technology	CJT
Dance Activities	DAA
Dental Assisting	DEA
Dental Hygiene	DEH
Dental Support	DES
Developmental Psychology	DEP
Dietetic	DIE
Education: Early Childhood	EEC
Educational Psychology	EDP
Economic Problems and Policies	ECP
Economics	ECO
Education: Foundations	EDF
Education: General	EDG

Education: Hard of Hearing and Deaf	EHD	Music: Conduction	MUG
Electrical/Electronics Repair	EER	Music: Education	MUE
Electronic Engineering Technology	EET	Music: History	MUH
Electronic Specialty Technology	EST	Music: Keyboard	MVK
Emergency Medical Services	EMS	Music: Literature	MUL
English Composition	ENC	Music: Music Ensembles	MUN
English Literature	ENL	Music: Opera/Musical Theatre	MUO
Engineering: General	EGN	Music: Other Instruments	MVO
Engineering Technology: Civil	ETC	Music: Percussion	MVP
Engineering Technology: Drafting	ETD	Music: Strings	MVS
Engineering Technology: General	ETG	Music: Theory	MUT
Engineering Technology: Industrial	ETI	Music: Voice	MVV
Engineering Technology: Mechanical	ETM	Music: Woodwinds	MVW
European History	EUH	Nursing Practice and Theory	NUR
Family Development	FAD	Oceanography: General	OCE
Film	FIL	Oceanography: Biological	OCB
Finance	FIN	Office Systems Technology	OST
Fire Fighting and Protection	FFP	Oral Interpretation	ORI
Food Science	FOS	Philosophy	PHI
Food Service Systems	FSS	Physical Education Acts (General)– Object Centered, Land	PEL
French Language	FRE	Physical Education Acts (General) – Performance Centered, Land	PEM
General Business	GEB	Physical Education Acts (General)– Water, Snow, Ice	PEN
General History	HIS	Physical Education Acts (Professional)– Object Centered, Land	PEO
Geography: Regional Area	GEA	Physical Education Theory	PET
Geography: Systematic	GEO	Physical Science	PSC
Geology	GLY	Physics	PHY
German and Germanic Languages	GER	Political Science	POS
Graphic Arts	GRA	Process (Cell and Molecular Biology)	PCB
Health Science	HSC	Psychology	PSY
Home Management and Equipment	HME	Quantitative Methods In Business	QMB
Hotel and Restaurant	HFT	Radio-Television	RTV
Housing and Home Design	HHH	Radiologic Technology	RTE
Human Nutrition	HUN	Reading	REA
Human Services	HUS	Real Estate	REE
Humanities	HUM	Religion	REL
Industrial Education Applied	IEA	Respiratory Therapy	RET
Interdisciplinary Science-Natural	ISC	Risk Management and Insurance	RMI
Interdisciplinary Studies	IDS	Russian Language	RUS
Interior Design	IND	Social Psychology	SOP
International Relations	INR	Social Sciences-Interdisciplinary	SSI
Journalism	JOU	Sociology, General	SYG
Latin American History	LAH	Spanish Language	SPN
Leisure	LEI	Speech Communication	SPC
Library Sciences	LIS	Speech Pathology and Audiology	SPA
Literature	LIT	Statistics	STA
Management	MAN	Student Life Skills	SLS
Marketing	MAR	Surveying and Related Areas	SUR
Mass Media Communications	MMC	Tax	TAX
Mathematics: Algebraic Structures	MAS	Theatre	THE
Mathematics: General	MAT	Transportation	TRA
Mathematics: Applied	MAP	Zoology	ZOO
Mathematics: Calculus and Pre-calculus	MAC		
Mathematics: General and Finite	MGF		
Mathematics: Technical and Business	MTB		
Medical Laboratory Science	MLS		
Metal Trades	MTR		
Meteorology	MET		
Microbiology	MCB		
Military Science	MIS		
Music	MUS		
Music: Brasses	MVB		
Music: Commercial	MUM		
Music: Composition	MUC		

Course Descriptions

The college credit courses for degree credit as listed in this section fall into three categories, identified by the following letter codes.

P – University Parallel – Any course identified by this symbol is intended to transfer to a university.

O – Occupational – The level and content of this course is tailored for those who wish to enter the business or industrial world.

D – Dual Purpose – Any course identified by this symbol is an occupational education course, eligible for transfer to a university under certain conditions – hence the course may serve both university parallel and occupational purposes.

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

ACG – Accounting

ACG 1003 General Accounting I (D) 3 cr.

Prerequisite: None. This course is a study of the sole proprietorship form of business organization with an emphasis on the following topics: the accounting cycle, journalizing and posting, 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 voucher system, bank reconciliations, and petty cash fund. The course includes special problems for both a service oriented business and a merchandising concern. The student must satisfactorily complete a practice set. Three contact hours.

ACG 1004 General Accounting II (D) 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 valuation, depreciation and fixed asset valuation, payroll accounting, the use of data processing in accounting with an emphasis on internal control, and an introduction to partnership and corporate accounting, including the basic characteristics and financial 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 to the completion of ACG 2001. Three contact hours.

ACG 2001 Principles of Accounting I (D) 3 cr.

This course consists of a study of the sole proprietorship form of business organization with an emphasis on the following topics: the accounting cycle; adjusting, 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 payroll, inventory valuation, receivables and payables, accounting for non-current assets, and an introduction to partnership accounting. Students must satisfactorily complete a practice set. The satisfactory completion of ACG 1003 and ACG 1004 is equivalent to the completion of ACG 2001. Three contact hours.

ACG 2011 Principles of Accounting II (D) 3 cr.

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

ACG 2100 Intermediate Accounting I (D) 3 cr.

Prerequisite: ACG 2011. This course is a continuation of accounting principles including a review of the accounting cycle with special attention given to: working capital, an in-depth study of financial statements, cash, receivables, current liabilities, inventories, plant and equipment assets and intangible assets. Three contact hours.

ACG 2110 Intermediate Accounting II (D) 3 cr.

Prerequisite: ACG 2100. This course is a continuation of ACG 2100 with coverage of the following topics: a study of corporate contributed capital, retained earnings and dividends, earnings per share, long-term debt and investments, pension plans and leases, accounting for income taxes, the statement of changes in financial position, accounting for price level changes, and further statement analysis. Three contact hours.

ACG 2360 Cost Accounting (D) 3 cr.

Prerequisite: ACG 2011. This course interprets and analyzes cost into three major areas: (1) planning and controlling routine operations (break-even analysis; job order and process cost systems), (2) inventory valuation and income determination (budgeting and standard costing), (3) policy making and long-range planning (capital budgeting). Three contact hours.

ACG 2500 Fund Accounting (O) 3 cr.

Prerequisite: ACG 2011. This course recommended for Accounting, Associate in Science students, is a study of the accounting methods and procedures used by not-for-profit organizations such as governmental agencies, hospitals, and charitable organizations. Three contact hours.

ACR – Air Conditioning and Refrigeration

ACR 1000 Introduction to Air Conditioning and Refrigeration (O) 4 cr.

This course teaches refrigeration, heat production, heat transfer and specific heat, temperature pressure chart, pressure relations, silver brazing, soft soldering, flaring and swaging. Eight contact hours: four lecture hours; four laboratory hours.

ACR 2060 Psychrometrics and Heat Load Calculations (O) 4 cr.

This course teaches psychrometrics charts, measurement and properties of air and heat load calculations on residential and commercial buildings. Eight contact hours: four lecture hours; four laboratory hours.

ACR 2170 Air Conditioning and Refrigeration Wiring Diagrams and Schematics (O) 4 cr.

Prerequisites: ACR 1000, ACR 2060. This course teaches air conditioning wiring diagrams and schematics on A/C central systems, A/C window units, oil furnaces, A/C heat pumps. This course includes techniques for trouble-shooting the electrical system in all air conditioning and refrigeration equipment. Six contact hours: two lecture hours; four laboratory hours.

ACR 2601 Air Conditioning: Commercial and Residential (O) 4 cr.

This course teaches installation and service techniques including piping refrigerant lines and piping water cooled condensers. Eight contact hours (theory/laboratory).

ACR 2811 Basic Air Conditioning Trouble-shooting (O) 4 cr.

Prerequisite: EER 1210. This course teaches basic air conditioning trouble-shooting. Trouble faults on the electrical circuits, heating or cooling complaints, problem solving of faults. Eight contact hours (theory/laboratory).

ADV – Advertising**ADV 2000 Advertising (D) 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 account management. Students will prepare print advertisement and produce TV and radio commercials. Three contact hours.

AER – Automotive/Engine Repair**AER 1000 Basic Technician Skills (O) 1 cr.**

This course, designed to teach the basic fundamentals of the vehicle mechanical trade, includes hand tool use/care and identification, specialized equipment use and functions, and parts and assemble identification. The course will emphasize tools, equipment and general shop safety. One contact hour.

AER 1100 Vehicle Electrical and Support Systems (O) 4 cr.

This course teaches the fundamentals of electrical and vacuum circuits, fuel and emission systems and interpreting wiring/vacuum diagrams and to provide practical experience in methods of safety checking, prechecking these systems prior to repair and/or adjustment. Topics include batteries, starters, charging components, carburetors, fuel delivery, compression, cooling, a variety of emission controls, and engine tuning. The course emphasizes safety procedures, special tools/equipment, manufacturers manuals and technical data. Six contact hours: two lecture hours; four shop hours.

AER 1114 Basic Vehicle Machinist (O) 4 cr.

This course teaches the principles and procedures of automotive/light truck remachining and to provide practical experience resurfacing, realigning and restoring engine components to prescribed tolerances. Topics include measuring, technical data, ferrous/nonferrous metal types, crack identification, cylinder liners, pistons, crank/cam shafts, lubricating/cooling methods and cleaning/descaling methods. The course places special emphasis on safety procedures, special tools, equipment operation, maintenance and methods of quality control. Six contact hours: two lecture hours; four shop hours.

AER 1120 Steering and Suspension Systems (O) 4 cr.

This course teaches the principles and operations of steering and suspension systems and provides practical experience in diagnosing, adjusting and/or repairing suspension and steering systems. Topics include alignments, suspension system overhaul, steering columns, sector, power steering, hydraulics, McPherson struts and wheel balancing. The course gives special emphasis to safety procedures, special tool/equipment and manufacturer's data. Six contact hours: two lecture hours; four shop hours.

AER 1121 Braking Systems (O) 4 cr.

This course teaches the principles of braking methods and designs and provides practical experience in the service, repair and maintenance of these systems. Topics include inspection procedures, measurements, machining drums and rotors, hydraulics, power boosters, hydraulic assist, self adjusters and emergency brakes. The course gives special emphasis to safety procedures and special tools, instruments and equipment to be used. Six contact hours: two lecture hours; four shop hours.

AER 1131 Transmission and Drive Systems (O) 4 cr.

This course teaches the principles and operations of automatic transmission, standard transmission, clutches, propeller shafts and differentials and provides practical experience in diagnosing, maintaining, repairing, and adjusting using manufacturer's data. Topics include torque multiplication/transfer, conventional gearing, differential types and application, hydraulics, planetary gearing and fluid circuitry. This course gives special emphasis to safety procedures and special tools and equipment. Six contact hours: two lecture hours; four shop hours.

AER 1160 Introduction to Vehicle Service/Parts Supervision (O) 3 cr.

This course, designed to teach the organization and operation of service and parts departments, includes the following topics: floor planning, floor plan alteration, equipment, and software selection; employee/interdepartmental/customer relations, finance, forecasting; inventory methods, merchandising and marketing. The course will emphasize communications and productive supervisory methods with special emphasis on noise/pollution environmental procedures, quality control and the prevention of customer/employee dissatisfaction. Three contact hours.

AER 1180 Integrated Automotive Systems (O) 4 cr.

Prerequisite: AER 1100. This advanced course teaches the principles of cooling, lubricating, charging, starting, fuel injection, and emission systems and provide practical experience in identification, diagnosis repairs and adjustments required. Topics include test equipment usage, evaluating test results, performing repairs and/or adjustment using manufacturer's specifications and measurements; special emphasis will be placed on safety quality control, accuracy and cleanliness procedures. Six contact hours: two lecture hours; four shop hours.

AER 1221 Paint Formulas and Application (O) 4 cr.

This course, designed to teach the principles and operations of paint repairing and refinishing, to provide practical experience mixing, color matching and blending, includes paint additives, air regulation, priming, spot refinishing, color coating and complete refinishing. The course emphasizes health management and safety procedures. Six contact hours: two lecture hours; four shop hours.

AER 1271 Introduction to Body Shop Supervision (O) 3 cr.

This is a course designed for the in-depth study of body shop management. Topics include organization plan of body shops, work schedules and distribution, use of pricing manuals, estimating and pricing of work, personnel management, marketing and promotional methods, financial analysis management, cost accounting, inventory control and customer relations. Three contact hours.

AER 2004 Internal Combustion Engines (O) 4 cr.

This course teaches the principles and operations of internal combustion engines and provides practical experience repairing and/or overhauling automotive/light truck power plants and their components. Topics include problem diagnosis, measuring, cleaning, valve train repair, cooling/

lubricating, system repair, in and out of chassis overhaul and the use of manufacturer's data. This course gives special emphasis to safety procedures, special tools, instruments and equipment to be used. Six contact hours: two lecture hours; four shop hours.

AER 2112 Advanced Engine Diagnosis (O) 4 cr.

Prerequisites: AER 1100 and AER 1180. This course teaches methods of diagnosing failures, misadjustments or problems which affect standard vehicle operation. Specialized topics include engine electrical/electronic, vacuum, fuel and emission systems. The course also includes vehicle electrical, vacuum and accessory circuits. The course emphasizes the use of analytic equipment, diagnostic manuals, safety and technical data. Six contact hours: two lecture hours; four shop hours.

AER 2115 Advanced Vehicle Machinist (O) 4 cr.

This course teaches advanced principles and procedures of automotive/light truck remachining and remanufacturing and to provide practical experience aligning, connecting rods, knurling pistons, resurfacing cylinder heads, flywheels, brake drums/rotors, line boring and crankshaft finishing to exacting tolerances. Additional topics include drilling, rethreading, and remanufacturing engines using technical data. This course places special emphasis on safety procedures, quality control, and the correct use of special tools/equipment. Six contact hours: two lecture hours; four shop hours.

AER 2169 Automotive/Light Truck Career Preparation (O) 3 cr.

This course teaches the skills required for employment, advancement and/or promotion in the automotive, light truck technology field as service advisors, dispatchers, quality controllers, service cashiers or assistants to supervisors. Topics include estimating, customer advising, "flat rate" interpreting, repair order preparation and completion, "work flow" control, payroll methods, cash balance procedures, pre/post vehicle testing and communicative skills. Emphasis includes current state laws for "consumer protection," on the job motivation, service sales, product awareness/dedication and employment accountability. Three contact hours.

AER 2171 Heating and Air Conditioning (O) 4 cr.

This course teaches the principles and operation of automotive/light truck heating and air conditioning systems, and provides practical experience in the diagnosis, servicing and repair of these systems. The course includes the following topics: functional testing of refrigeration components and/or assemblies; electrical and vacuum circuits; also, repair, replacement, and/or overhaul as required. The course gives special emphasis to safety procedures, specific tools, equipment and the use of technical data. Six contact hours: two lecture hours; four shop hours.

AER 2210 Body Damage Analysis and Repair (O) 4 cr.

This course, designed to teach the principles and operation of analyzing and repairing body damage and provide practical experience restoring dents, dings and creases to original contours, includes metal stress, heat shrinking, hydraulic stretching, forming, filling and preparation for color application. The course emphasizes health management and safety procedures. Six contact hours: two lecture hours; four shop hours.

AER 2214 Body Panels and Frames (O) 4 cr.

Prerequisite: AER 2210. This course, designed to teach the principles of metal panel replacement, frame and unibody measuring, alignment and straightening, and glass replacement and sealing, includes inner/outer panel removal, sectioning and reinstalling using cutting, brazing, welding and fiberglass filling techniques as well as windshield, stationary back and side glass removal and replacement. The

course emphasizes safety procedures, special tools and equipment and their use. Six contact hours: two lecture hours; four shop hours.

AER 2272 Advanced Body Repair and Appraising (O) 4 cr.

Prerequisites: AER 2210 and AER 2214. This course, designed to teach the principles of estimating, appraising, and contracting, includes major sectioning of quarter and half units, preparing minor/major fire or water submersion claims, as well as major alignment, fitting, connecting sections to existing roofs, floor panels and pillars, also sealing and/or aligning glasses, "T" Tops, doors, decks, and gates. This course emphasizes safety procedures, special tools and/or equipment. Six contact hours: two lecture hours; four shop hours.

AER 2941 Vehicle Machinist Practicum (O) 3 cr.

Prerequisites: AER 1114 and AER 2115. This course provides the student with practical experience in machine shop operations to be prepared for jobs in the industry. Topics include inspection and diagnosis of correct remanufacture procedures of vehicle engine clutch and brake parts with emphasis on cylinder head reconditioning, crankshaft grinding, connecting rod reconditioning, line honing, cylinder boring, clutch and brake machining and fitting bearings. This course places special emphasis on safety, quality control and equipment use. Six contact hours: six shop hours.

AMH - American History

AMH 2010 United States History to 1865 (P) 3 cr.

Prerequisite: None. This course in United States History to 1865, emphasizes the European background, Revolution, Articles of Confederation, the Constitution, problems of the new republic, sectionalism, manifest destiny, slavery and the War Between the States. Three contact hours.

AMH 2020 United States History From 1865 to Present (P) 3 cr.

Prerequisite: None. This course, United States History from 1865 to the present, includes the reconstruction, growth of big business, the agrarian revolt, Latin American affairs, the progressive movement, the first World War and political, economic, and world affairs since World War II. Three contact hours.

AMH 2420 History of Florida (P) 3 cr.

Prerequisite: None. This course in the History of Florida emphasizes the explorations, U.S. acquisitions, Convention of St. Joseph, Civil War and Reconstruction, and Florida's growth in the 20th Century. Three contact hours.

AMH 2571 Afro-American History and Culture (From African Origins Through Reconstruction) (P) 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, general minority problems, cultural appreciation, and black ideas. Three contact hours.

AMH 2572 Afro-American History and Culture (From World War I to the Present) (P) 3 cr.

This course is a non-sequential continuation of AMH 2571 with special emphasis on present and projected developments among black people. This course also includes the black people and two World Wars and their aftermath, as well as the roots and manifestation of the Civil Rights and Black Power movements.

AML – American Literature

AML 2012 American Literature I (P) 3 cr.
Prerequisite: ENC 1102. This course is a critical study in selections from American Literature: Colonial period to the late 19th Century. Three contact hours.

AML 2023 American Literature II (P) 3 cr.
Prerequisites: AML 2012 and ENC 1102. This course is a critical study of selections from American Literature: late 19th Century to the present. Three contact hours.

ANT – Anthropology

ANT 2310 Introduction to North American Indians (P) 3 cr.
This course is a survey of North American Indians from their first appearance on this continent through their development into tribes. Three contact hours.

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

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

APA – Applied Accounting

APA 2321 Hotel-Motel Accounting (O) 3 cr.
Prerequisite: ACG 1004. This course consists of the application of accounting principles and concepts to financial analysis, cost, budgeting and investment of hospitality properties. The course emphasizes controller functions, profit and loss statements, statistical analysis, and forecasts. Three contact hours.

APA 2361 Credit Union Accounting (O) 3 cr.
This course covers the specific areas needed to account for the transactions found in credit union operations. Topics include credit union accounting with: books of original entry, subsidiary ledgers and controlling accounts; purchases, sales, and uncollectable accounts; voucher systems; cash receipts and cash disbursements; accruals and deferrals; payroll; financial statements and managerial accounting. Three contact hours.

APB – Applied Biology

APB 1150 Life In Its Biological Environment (P) 3 cr.
Prerequisite: None. This course is an introduction to biological structure, function processes, principles and concepts. This course fulfills the general education requirement. Three contact hours.

APB 1150L Biology Lab (P) 1 cr.
Corequisite: APB 1150. This course provides each student individualized, self-paced practice in specific areas of need as the student attempts to improve biological skills. Two contact hours (laboratory).

APB 1220C Dental Assisting Anatomy and Physiology (O) 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 sciences 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.

APB 1260 Cardiopulmonary Anatomy and Physiology (D) 4 cr.
This course, designed to offer a thorough anatomical and physiological examination of the cardiopulmonary system, consists of an introduction to electrocardiology and chest roentgenology. In addition, the course includes a correlated examination of the renal system and circulatory system where relevant. Four contact hours.

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

APB 2190C Human Anatomy and Physiology I (P) 3 cr.
The student will benefit by taking CHM 1020, CHM 1040C, APB 1150, BSC 2010C, ZOO 1010C, or High School Chemistry prior to enrolling in APB 2190C. This course is a study of the gross morphology and physiology of the human. The course includes sections concerned with cells, tissues, the musculo-skeletal system, circulation, the lymphatic system, the digestive system, and the integument. Four contact hours: two lecture hours; two laboratory hours.

APB 2191C Human Anatomy and Physiology II (P) 3 cr.
Prerequisite: APB 2190C. A continuation of APB 2190C. This course considers the endocrine system, the reproductive system, the excretory system, and fluids and electrolyte balance. Four contact hours: two lecture hours; two laboratory hours.

APB 2293 Pulmonary Pathology (D) 4 cr.
Prerequisite: APB 1260. Pulmonary pathology gives an in-depth study of the more common diseases of the cardiopulmonary system including their etiology, pathophysiology, clinical picture and treatment. Four contact hours.

ARC – Architecture

ARC 2120C Architectural Drafting (D) 3 cr.
Prerequisite: FTD 1100C. This course introduces residential design and planning and requires an original solution to a given residential concept. Students not only prepare original tracings consisting of floor plans, elevations, wall sections, but also produce large scale details from the original design. The emphasis of the course is on applied principles of architectural drafting and detailing. Four contact hours: two lecture hours; two laboratory hours.

ARH – Art History**Lecture**

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

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

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

ART – Art**Crafts - Studio****ART 1101C Crafts as an Element of Design (P) 2 cr.**

This course, an introduction to contemporary and traditional crafts, includes weaving, batik, silk screening, tie dye, block printing, and leathercrafts. The student may repeat this course for additional credit for up to a combined total of three semesters. Maximum, six semester hours credit total. Four contact hours: one lecture hour and three studio hours.

ART 1130C Textile Design (P) 3 cr.

This course is an introduction to textile processes including silk-screen printing, batik, tie and dye, and block printing. Six contact hours: two lecture hours and four studio hours.

ART 1134C Beginning Weaving (P) 3 cr.

This course is an introduction to fiber processes including off-loom techniques, primitive loom construction and weaving, and simple four-harness loom weaving. Techniques include coiling, twining, dyeing, knotting, tapestry, and twill variations. Students who have already received credit for ART 1101C, Crafts as an Element of Design, cannot also receive credit for ART 1134C. Six contact hours: two lecture hours and four studio hours.

ART 1135C Intermediate Weaving (P) 3 cr.

Prerequisite: ART 1134C or permission of the instructor. This course supplements beginning weaving and increases the student's weaving vocabulary. Processes include double weave, supplemental weft techniques, pattern drafting, and color study. Six contact hours: two lecture hours and four studio hours.

ART 1136C Advanced Weaving (P) 3 cr.

Prerequisites: ART 1134C and ART 1135C or permission of the instructor. This course, designed for the experienced weaver who wants to investigate advanced processes and further skills, emphasizes the aesthetic handling of fibers. Six contact hours: two lecture hours and four studio hours.

Ceramics - Studio**ART 2110C Ceramics: Hand-Building I (P) 3 cr.**

The student will benefit by taking ART 1300C and ART 1201C 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.

ART 2111C Ceramics: Hand-Building II (P) 3 cr.

Prerequisite: ART 2110C. This course, a continuation of ART 2110C, emphasizes creativity and special problems. This course also includes kiln stacking and firing. Six contact hours: two lecture hours; four studio hours.

ART 2112C Ceramics: Wheel Throwing I (P) 3 cr.

Prerequisite: ART 2110C. This course introduces the basic methods of wheel throwing along with kiln stacking and glazing techniques. Six contact hours: two lecture hours; four studio hours.

ART 2113C Ceramics: Wheel Throwing II (P) 3 cr.

Prerequisites: ART 2110C, ART 2112C. This course is a continuation of ART 2112C. Emphasis is on perfecting the technique of wheel throwing and on creativity with ceramic sculpture. Six contact hours: two lecture hours; four studio hours.

ART 2115C Glaze Exploration (P) 3 cr.

This course includes practice in the use of the nature of glazing techniques such as mishika and sgraffito, plus application and testing procedures. Six contact hours: two lecture hours; four studio hours.

Design - Studio**ART 1201C Design I (P) 3 cr.**

This course is an introduction to the field of the visual arts through the study of the elements and principles of design. The course explores a variety of materials and techniques with emphasis on line, color, texture, form and in two-dimensional space organizations. Six contact hours: two lecture hours; four studio hours.

ART 1202C Design II (P) 3 cr.

Prerequisite: ART 1201C. This course continues the study of the elements and principles of design. The course explores a variety of materials and techniques with emphasis on three-dimensional space organization. Six contact hours: two lecture hours; four studio hours.

Drawing - Studio**ART 1300C Drawing I (P) 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 (P) 3 cr.

Prerequisite: ART 1300C. This course is a continuation of ART 1300C. Six contact hours: two lecture hours; four studio hours.

Painting - Studio**ART 2510C Painting I (P) 3 cr.**

Prerequisite: ART 1301C. This course introduces the student to basic oil painting techniques and color theory. Projects, designed to lead the student toward more independent concepts, include standard subjects such as still life, landscape, portrait, and figure painting. Six contact hours: two lecture hours; four studio hours.

ART 2520C Painting II (P) 3 cr.

Prerequisite: ART 2510C. This course, a continuation of ART 2510C, encourages students to plan independent projects, working within certain broad guidelines as to subject matter and technical approach. Individual interests and strengths are part of the planned program for each student; however, the course requires a certain specific number of paintings during this semester. Six contact hours: two lecture hours; four studio hours.

Photography - Studio**ART 1600C Photography I (P) 3 cr.**

This course is an introduction to the use of the camera, laboratory and materials, and methods and procedures for the creative applications of individual expressions in photography. The course emphasizes color slide materials. The student must have a 35mm camera or equivalent. Materials fee \$15. Six contact hours: two lecture hours and four studio hours.

ART 1601C Photography II (P) 3 cr.

Prerequisite: ART 1600C. This course, a continuation of ART 1600C, emphasizes black and white and color processing. Materials fee is \$15. Six contact hours: two lecture hours; four laboratory hours.

Printmaking - Studio

ART 2400C Printmaking I (P) 3 cr.
Prerequisite: ART 1300C or ART 1301C. This course consists of instruction in line etching, tone etching, intaglio printing and relief printing. Six contact hours: two lecture hours; four laboratory hours.

ART 2401C Printmaking II (P) 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 request this course twice for additional credit to a maximum of nine credit hours. Six contact hours: two lecture hours; four studio hours.

Sculpture - Studio

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

ART 2702C Sculpture II (P) 3 cr.
Prerequisite: ART 2701C or permission of the instructor. This course, a continuation of ART 2701C, explores new and more advanced techniques and materials with individual projects encouraged. The student may repeat this course twice for additional credit to a maximum of nine credit hours. Materials fee \$15. Six contact hours: two lecture hours and four studio hours.

ASC – Aeronautical Science

ASC 1000 Principles of Flight (O) 3 cr.
This course consists of an introduction to the fundamentals of flight, including basic aerodynamics, aircraft characteristics, and a look at aircraft of the past, present and future. Three contact hours.

ASC 1001 Introduction to Aviation/Aerospace (O) 3 cr.
The course stresses the impact of aviation and space and introduces aviation history, air and space age, careers in aviation and aerospace, nature of space, rocketry, science of flight, weather theory, cartographics, airports, cross-country flying, and physiology of flight. This exploratory course should be of general interest to the novice and of special value for elementary and secondary school teachers due to its interdisciplinary approach. Three contact hours.

ASC 1005 History of Air Transportation (O) 3 cr.
This course consists of a chronological history of man's quest for flight and of the development of the Air Traffic Control System. Three contact hours.

ASC 1210 Aviation Weather (O) 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 Air Regulations (O) 3 cr.
This course familiarizes the student with federal regulations that govern pilots, aircraft operations and air traffic control. Three contact hours.

ASH – Asian History

ASH 2005 History of the Far East (P) 3 cr.
This course consists of the history of the Far East from early modern times with emphasis on China and Japan. Three contact hours.

AST – Astronomy

AST 1002 Introduction to Astronomy (P) 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 to major in astronomy or other sciences. The student will become acquainted with the solar system with emphasis on the student's own planet and its satellite, the moon. The student will also study other planets, satellites, 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 1022L Astronomy Laboratory (P) 1 cr.
Pre- or Corequisite: AST 1002. This is a laboratory course which is intended to supplement AST 1002, Introduction to Astronomy. Student should have a working knowledge of mathematics at a level equivalent to MAT 0024. Students will observe the moon, planets, stars, and other objects and will 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.

ATF – Aviation Technology Flight

ATF 1000 Basic Flight I (D) 3 cr.
Corequisite: FAA Medical Certificate-Class III. This course consists of the instruction and flight training necessary for the student to accomplish a first solo flight in an airplane and to achieve a high degree of flying proficiency in basic flying maneuvers. The stages that the student will progress through are: Pre-Solo, Supervised Solo, Basic Flying Techniques, and Solo Practice. Three contact hours: one lecture; two laboratory.

ATF 1100 Basic Flight II (D) 3 cr.
This course is a continuation of ATF 1000 and consists of the instruction and flight training necessary for the student to complete the minimum requirements that will qualify the student to take the FAA Private Pilot Certificate Flight test. In addition, the student is introduced to advanced-maximum performance and precision 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.

ATF 2201C Instrument Flight (D) 3 cr.
Prerequisite: FAA Private Pilot Rating. It is recommended but not required that the student have at least 50 hours of pilot flight time. This course consists of instructor and flight training in Instrument Flight Rules (IFR) operations. The student will learn the fundamentals of precise airplane 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 for each type of instrument approach and missed approach procedures. Satisfaction of this course requires that the student pass the FAA Instrument Flight Check and be awarded an Instrument Rating. Three contact hours: one lecture hour; two laboratory/flight hours.

ATF 2300 Advanced Flight (D) 3 cr.
Prerequisite: FAA Private Pilot with an Instrument Rating. This course consists of a review of the maneuvers and procedures required for the Private Pilot Certificate. The student will also receive instruction and flight training necessary to perform advanced maneuvers such as eights across a road, S-turns across a road, steep power turns, accelerated stalls, chandells, lazy eights, steep spirals, cross-wind procedures, control of the aircraft by reference to flight instruments, emergency procedures and any other maneuver required for

a Commercial Pilot rating. This course also consists of instruction and practice in complex aircraft, a review of advanced maneuvers in a complex aircraft and night operations. Satisfaction of this course requires that students pass an FAA flight check for a Commercial Pilot with an instrument rating. Three contact hours: one lecture hour; two laboratory/flight hours.

ATM – Aviation Technology Maintenance

ATM 1300 Aircraft Airframe Mechanic (O) 3 cr.

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

ATM 1500 Aircraft Powerplants Mechanics (O) 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 FAA licensing examination as an Airframe and Powerplant Mechanic. Three contact hours.

ATM 1700 Aviation Technology Maintenance (O) 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 FAA licensing examination as an Airframe and Powerplant Mechanic. Three contact hours.

ATM 1800 Aircraft Powerplants Mechanic Practicum (O) 2 cr.

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

ATM 1810 Aircraft Airframe Mechanic Practicum (O) 2 cr.

This course will provide instruction in theory, maintenance procedures and their practical application along with airframe mechanics. Successful completion of the course will assist the student in preparing for the FAA licensing examination as an Airframe and Powerplant Mechanic. Eight contact hours. (Eight weeks).

ATT – Aviation Technology Theory

ATT 1100 Private Pilot Ground School (D) 3 cr.

This course, consisting of classroom instruction in preparation for FAA Private Pilot Written Examination, includes science of flight, airplane systems and instruments; weight, balance and performance; meteorology, physiology of flight, basic navigation, radio navigation, air traffic control and communications, Airman's Information Manual, and Federal Aviation Regulations. Three contact hours.

ATT 1110 Commercial Pilot Ground School (O) 3 cr.

Prerequisite: FAA Private Pilot Certificate. This course, a preparation for FAA Commercial Pilot Written Examination, reviews weight and balance; airplane performance; air traffic control and communication; airman's information; physiology of flight. Course concentrates on advanced flight

computer, advanced meteorology, advanced VFR navigation and radio, and commercial pilot federal aviation regulations. Three contact hours.

ATT 1120 Instrument Pilot Ground School (O) 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 radar and transponder. Course concentrates on IFR clearance shorthand, IFR flight charts, IFR planning and VOR flights, IFR regulations and procedures, and instrument approaches. Three contact hours.

ATT 1810 Environment of the Air Traffic Controller (O) 3 cr.

This course presents a candid look at the air traffic controller's language, tools, and profession. Three contact hours.

AVM – Aviation Management

ATT 1812 The Flight Service Station (O) 3 cr.

This course presents a study of the operation in a flight service station to include weather observation, air-ground communications and flight planning briefing. Three contact hours.

ATT 1814 Radar/Computer Interface (O) 3 cr.

This course consists of the history of the impact of radar and its impact on the air traffic system, the advent of the computer and an introduction to the computer/radar interface. Three contact hours.

ATT 1816 Air Route Traffic Control Center (O) 3 cr.

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

ATT 1818 Approach Control (O) 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 1820 The Air Traffic Control Tower (O) 3 cr.

This course includes a study of the operation of a control tower, visual separation techniques and the interrelationships of the control tower and the airport. Three contact hours.

ATT 2941 Facility Internship (O) 4 cr.

The course includes familiarization with the air traffic system via on-site orientation, in-depth visits to flight service stations, towers, approach control en route centers, weather stations, and radar sites. Four contact hours: one lecture; three laboratory.

BAN – Banking

BAN 1100 The Banking Starter Series (O) 3 cr.

This course is a series of three short orientation seminars at the entry level for new bank employees. In order to earn three credits, all three seminars must be completed. Your Place in Banking – This three-hour training unit gives new employees information on the functions of the various parts of a bank and the financial services offered by the commercial bank. Your Personal Finances – This three-hour training unit shows new employees the best methods of managing their personal income – how to spend it, save it, and borrow against it. Your Personal Image – This nine-

to-twelve hour training unit teaches new employees office courtesies, telephone etiquette, and personal grooming. Three contact hours.

BAN 1110 Principles of Bank Operation (D) 3 cr.

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

BAN 1160 Bank Letters and Reports (O) 3 cr.

This course is for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters but also with the psychological principles that help the letter writer achieve best results. The course reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters. Three contact hours.

BAN 1210 Analyzing Financial Statements (O) 3 cr.

This course consists of 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. Three contact hours.

BAN 1700 Financing Business Enterprise (O) 3 cr.

The student may benefit by taking ACG 1003 or ACG 2001 before enrolling in Ban 1700. This course emphasizes the difference between lending and investing, and the fact that investing in a corporation and financing a corporation are different aspects of the same subject. The course presents the material from the viewpoint of the corporate treasurer who must safeguard the financial future of the corporation. Three contact hours.

BAN 2150 Bank Public Relations and Marketing (O) 3 cr.

This course discusses the basis of public relations, both internal and external, and seeks simply to explain the why, the what, and some of the how of public relations and marketing. It presents an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing. Three contact hours.

BAN 2200 Credit Administration (O) 3 cr.

This course, directed toward the executive level, concerns itself partly with a statement and a discussion of factors influencing and determining loan policy. The course presents methods of credit investigation and analysis, credit techniques, specific credit problems and regular as well as unusual types of loans. Three contact hours.

BAN 2303 Savings and Time Deposits (D) 3 cr.

This course reflects a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. This course reviews different types of financial savings in order to describe the system of financial flows of income to capital investment. Three contact hours.

BAN 2720 Bank Management (O) 3 cr.

This course presents new trends which have emerged in the philosophy and practice of management. The study and ap-

plication of the principles outlined provide new and experienced bankers with a working knowledge of banking management. Since case study is becoming well established as an effective management learning technique, the text introduces the use of cases as a new element. Three contact hours.

BCH – Biochemistry (Biophysics)

BCH 2010C Bio-organic Chemistry for Allied Health Students (P) 4 cr.

Prerequisite: CHM 1040C. This course, designed for those students in the Dental Hygiene Program or those students wishing to transfer into UNF Bachelor of Arts in Nursing Program, includes a brief survey of inorganic chemistry (atomic structure, gas laws, acids and bases, solutions), and a study of organic chemistry (alkanes, alkenes, alkynes, hydrocarbons) and biochemistry (carbohydrates, lipids, proteins, nucleic acids, metabolism). Six contact hours: three lecture hours; three laboratory hours.

BCN – Building Construction

BCN 1001C Building Construction (D) 3 cr.

This course introduces the student to materials and methods used in building construction. This course also includes the analysis and evaluation of their adaptation in the construction of residential, commercial, and small industrial buildings. Three contact hours.

BCN 2614C Planning and Estimating (D) 3 cr.

Prerequisites: BCN 1001C, ETI 1421C. This course consists of a study of fundamental planning and a step-by-step method for preparing a quantity survey. The subjects covered in the course include job requirements, costs of construction operations, and critical path method (CPM)s 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 (O) 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 (O) 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 (O) 2 cr.

Prerequisite: BCT 1113. This course, a continuation of BCT 1113, focuses on heavy commercial and industrial construction prints. Topics include specifications, topographies, profiles, surveys, maps, and plans. Two contact hours.

BCT 1081 Construction Methods and Materials (O) 3 cr.

This course provides an in-depth study of building materials and introduces building terminology and method of construction, with emphasis placed on site work, concrete, masonry, metal, wood, plastic, thermal moisture protection, and finishes. The topics presented will focus on characteristics of the materials and products regarding their strength, heat and flow, weathering qualities and how these will affect their use in construction projects. Three contact hours.

BCT 1113 Blueprint Reading I (O) 3 cr.

This course teaches the fundamentals of blueprint reading and sketching common to all construction trades. The course covers plans, elevations, shapes, details, and views in sections. Three contact hours.

BCT 1114 Concrete Form Construction (O) 3 cr.

Prerequisite: SUR 1101C. This course describes the construction and use of various concrete forms employed in building construction. The forms described include concrete footings, slabs, walls, columns, beams and stairs. This course enables the student to gain practical experience in making and setting forms under supervised work conditions. Four contact hours (theory/laboratory).

BCT 1132 Construction I (O) 3 cr.

Prerequisite: BCT 1081. This course is a study of the structure of steel and wood framed buildings, with emphasis on sill, joist, wall, bridging, bracing and sheathing. This course requires classroom and field/site work with construction of full or scale sized models required. Four contact hours.

BCT 1134 Construction II (O) 3 cr.

Prerequisite: BCT 1132. This course, a continuation of Construction I, focuses on roof construction, style, types and combinations. Attention is directed towards rafter and truss construction, sheathing, flashing and finishing through classroom and field work with construction of fivesize or scale models. Four contact hours: three lecture hours; one laboratory hour.

BCT 1501 Introduction to Plumbing (O) 3 cr.

This course familiarizes the student with the basic principles and definitions relating to the plumbing trade. The course includes instruction in related math, hand and power tools, basic blueprints, plumbing materials and fittings. Six contact hours (theory/laboratory).

BCT 1710 Energy Efficient Construction (O) 3 cr.

This course provides 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 designs; and active solar systems. Three contact hours.

BCT 1805 Construction Scheduling (O) 2 cr.

Prerequisite: BCT 1081. This course is a study in the orderly flow of construction projects, through a well planned scheduled approach with emphasis on the CPM, PERT and diagram methods of scheduling. Two contact hours.

BCT 2152 Construction III (O) 3 cr.

Prerequisite: BCT 1134. This course is a continuation of Construction II. The course focuses on exterior finishing methods and presents floor, ceiling, wall, door, window and stair finishes through classroom and field work with construction of full-size or scale models. Four contact hours: three lecture hours; one laboratory hour.

BCT 2153 Construction IV (O) 3 cr.

Prerequisite: BCT 2152. Corequisite: BCT 2804. This course, 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 (O) 2 cr.

Corequisite: BCT 2153. This course is an in-depth study of the contractual relationship between 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.

BOT – Botany**BOT 1010C Botany (P) 4 cr.**

An evolutionary survey of the plant kingdom, this course emphasizes principles which are applicable to all forms of plant life. Six contact hours: three class hours; three laboratory hours.

BOT 2140C Field Botany of Vascular Plants (P) 4 cr.

Prerequisite: BOT 1010C or permission of instructor. Survey of local vascular flora and local communities (Northeast Florida), and evolutionary relationships of vascular plants. Laboratory work will emphasize field work including collecting and identifying vascular plants. Six contact hours: three lecture hours; three laboratory hours.

BSC – Introductory Biological Science**BSC 2010C Principles of Biology I (P) 4 cr.**

This course, an introduction to the Principles of Biology, includes studies of cellular organization, genetics, evolution and population dynamics. This course fulfills the general educational requirements and 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 2011C Principles of Biology II (P) 4 cr.

Prerequisite: BSC 2010C. This course, a continuation of BSC 2010C and recommended for science students transferring to a four year institution, consists of a study of the systems of plants and animals and of a required laboratory experience using plant and animal material to reinforce subject matter. Five contact hours: three lecture hours; two laboratory hours.

BUL – Business Law**BUL 2111 Business Law I (D) 3 cr.**

This course, the basic principles of law as related to business, includes criminal law, law of torts, contracts, employment, personal and real property, bailment, consumer protection, and environmental law. Three contact hours.

BUL 2112 Business Law II (D) 3 cr.

Prerequisite: BUL 2111. This continuing course in business law stresses the legal principles involving agency, commercial paper, sales, debtor-creditor relationships, estates and insurance. Three contact hours.

CAP – Computer Applications**CAP 1801 Introduction to Lotus 1-2-3 (D) 3 cr.**

This five-week course is designed for individuals who wish to master and use Lotus 1-2-3 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, the command set for Lotus 1-2-3, business spreadsheets, and accessing the Lotus 1-2-3 data base. The course is oriented toward use of the IBM PC and IBM XT computers. Four contact hours: three lecture hours; one laboratory hour.

CAP 1802 Microcomputers in Business: A Survey (D) 3 cr.

This course is an indoctrination for users and/or operators who will apply microcomputers to transaction processing, accounting, operations, and financial reporting in business situations. The course provides lab experience with actual microcomputers and application packages. Experience is provided in which microcomputers are used as a stand-alone

business tool, as intelligent terminals within distributed processing systems, and as executive tools for data based decision support. Four contact hours: three lecture; one laboratory hour.

CAP 1803 Advanced Lotus 1-2-3 (D) 1 cr.

Prerequisites: Introduction to Lotus 1-2-3 or demonstrated experience with spreadsheet software. This five-week course is designed for individuals who wish to add to their knowledge of spreadsheet construction and operation. The course is directed toward executive secretaries, executives, and managers with the need to perform spreadsheet activities with financial applications. The course includes topics such as advanced spreadsheets for business, printing graphs with Lotus, and interfacing Lotus to other business applications. The course uses the IBM PC and IBM XT computers. Four contact hours: Three lecture hours; one laboratory hour.

CAP 1820 Microcomputer Application Software (O) 3 cr.

This course, intended for students with no previous experience in data processing, orients the students to word processing software, electronic spreadsheet, software, data base software, and business graphics software to solve common problems of the automated office. Four contact hours: two lecture hours; two laboratory hours.

CAP 2830 Management Overview of Microcomputer Software (D) 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 the knowledge and ability to select microcomputer software for business applications. Four contact hours: three lecture hours; one laboratory hour.

CAP 2832 Advanced Microcomputer Business Applications (D) 3 cr.

Prerequisites: COC 1300 and CAP 1820; or equivalent work experience, and ACG 2001; or equivalent work experience. This course is a skill-development course in which students process transactions, build files, maintain files, and produce outputs on microcomputers. Students work with software packages and input documents from which applications are implemented. Specific application instruction includes order entry, invoicing, accounts receivable, payables, purchasing, financial reporting, and projections using spreadsheets. Four contact hours: three lecture hours; one laboratory hour.

CCJ – Criminology and Criminal Justice

CCJ 1010 Introduction to Criminology (D) 3 cr.

The course provides a survey of deviant behavior as related to the concept and definition of crime of the concept and purposes of the law, of the measurement and causes of crime, and of societal reactions to criminal behavior, from historical through contemporary periods. Three contact hours.

CCJ 1020 Introduction to Criminal Justice (D) 3 cr.

This introduction to the philosophical and historical backgrounds of law enforcement includes the study of the organi-

zation, purpose, functions and processes of law enforcement and other agencies involved in the administration of criminal justice in the United States. Three contact hours.

CCJ 1030 Introduction to Criminal Behavior (D) 3 cr.

This course consists of a basic study of the nature and peculiarities of human behavior in direct relationship to crime and delinquency. Three contact hours.

CCJ 1220 Criminal Law (D) 3 cr.

This course consists of the study of the scope, purposes and principles of criminal law, the classification and analysis of crimes and criminal acts in general, and the examination of selected specific offenses. Three contact hours.

CCJ 1300 Introduction to Corrections (D) 3 cr.

With emphasis on career orientation, this course examines the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions, and parole. Three contact hours.

CCJ 1400 Police Organization and Administration (D) 3 cr.

This course presents the principles of organization and administration in law enforcement; functions and activities; planning and research; public relations, personnel and training; inspection and control; records and communications, custody. Three contact hours.

CCJ 1420 Police Operations (D) 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 investigations unit, the intelligence and vice units and the juvenile investigation unit. Three contact hours.

CCJ 2230 Criminal Evidence and Procedure (D) 3 cr.

This course consists of the study and examination of the criminal rules of evidence—kinds, degrees, admissibility, competence and weight, specifically as they affect the law enforcement officer in the processes of arrest, force, search, seizure, preservation, custody, testimony and courtroom procedures. Three contact hours.

CCJ 2250 Constitutional Law (D) 3 cr.

This study of the United States and Florida Constitutions presents an in-depth analysis of constitutional law with emphasis in 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.

CCJ 2330 Probation, Pardons and Parole (D) 3 cr.

This course examines, as community-based correctional programs, probation as a judicial process and parole as an executive function. The course also reviews the use of pardons. Three contact hours.

CCJ 2340 Introduction to Correctional Treatment (D) 3 cr.

This course evaluates the basic principles of human behavior and some of the techniques of changing attitude and behavior. The course also reviews the individual and group approaches to counseling. Three contact hours.

CCJ 2360 Introduction to Contemporary Practices in Corrections (D) 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 concept in institutions. Three contact hours.

CCJ 2500 Juvenile Delinquency (D) 3 cr.

This course presents the major issues of crime causation, rehabilitation, and juvenile delinquency participation 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.

CCJ 2930 Seminar in Police Problems (D) 3 cr.

Each student in this course chooses 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.

CCJ 2933 Introduction to Special Problems in Corrections (D) 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 "unusual" prisoners, classification of offenders, authority and responsibility of correctional officers, professional and legal standards, and analysis of contemporary correctional problems. Three contact hours.

CDA – Computer Design/Architecture**CDA 2172 Computer Aided Drafting and Design (D) 3 cr.**

Prerequisites: ARC 2120C, COC 2001, SUR 2140C. This course provides a student with a general understanding of Computer Aided Drafting and Design operations. The student will acquire a working knowledge of steps required for initializing commands to 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 fast-plot of any current active drawing in the system. Six contact hours: two lecture hours; four laboratory hours.

CET – Computer Engineering Technology**CET 2112C Introduction to Digital Electronics (O) 3 cr.**

Prerequisite: EET 2121C. This is an introductory course covering 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 2113C Computer Logic Circuits (O) 3 cr.

Prerequisites: CET 2112C, EET 2119C. This course, a study of computer circuits and systems, includes the following topics: flip-flops and counters, registers, arithmetic units, computer memories, D/A and A/D conversions. The course also covers digital integrated circuits and introduction to microprocessors. Four contact hours: two lecture hours; two laboratory hours.

CET 2141C Computer Circuit Analysis (O) 4 cr.

Prerequisite: EER 2411. Starting with a simplified block diagram of a computer, this course will expand to both discrete and I.C. circuit analysis of computers used today. Laboratory work will utilize microprocessor systems for programming and maintenance techniques. Eight contact hours (laboratory).

CET 2143C Microprocessors (O) 3 cr.

Prerequisite: COC 2001. Corequisite: CET 2113C. This course consists of 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 2186C Computer Peripherals and Interfacing (O) 3 cr.

Prerequisites: CET 2113C, CET 2143C. This course is a study of the interrelationship between the computer control processing unit and peripheral input/output devices, with emphasis on interfacing considerations between the C.P.U. and series/parallel terminals, general troubleshooting and routine maintenance procedures common to the computer industry as an integral part of the course. Four contact hours: three lecture hours; one laboratory hour.

CHD – Child Development**CHD 1110 Infant and Toddler Care I (Development) (D) 3 cr.**

This course acquaints infant and toddler care workers in public, private, and church-sponsored child care centers with 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 (D) 3 cr.

This course is an introductory study of the physical, social, emotional, and intellectual development of the young child. The course also covers guidance, behavior problems, feelings, attitudes, and values. Three contact hours.

CHD 1230 Child Growth and Development II (D) 3 cr.

Prerequisite: CHD 1220. This course, a continuation of CHD 1220, adds to the student's understanding of the physical, social, emotional, and intellectual development of the young child. The course also covers the study of special children (handicapped, minorities, behavior problems, children in crisis), nutrition and development, and safety and emergency procedures. Three contact hours.

CHD 1850 Training of Residential Child Care Workers I (D) 3 cr.

This course is for residential child care workers or foster parents and for those who are preparing for those professions. Course I deals with understanding developmental planning, developmental needs, and separation. Three contact hours.

CHD 1851 Training of Residential Child Care Workers II (D) 3 cr.

Prerequisite: CHD 1850. This course, a continuation of CHD 1850, is also for residential child care workers or foster parents and for those who are preparing for those professions. Course II deals with the understanding of cottage life, discipline, the group, and the job. Three contact hours.

CHD 2120 Infant and Toddler Care II (Education) (D) 3 cr.

Prerequisite: CHD 1110. This course, a continuation of CHD 1110, acquaints infant and toddler care workers in public, private, and church-sponsored child care centers with educational strategies for children from birth to three years. The course also presents minimum standards, classroom management, teacher preparation, assessment, discipline, and parent participation. Three contact hours.

CHM – Chemistry**CHM 1010 Introduction to Chemical Problem Solving (P) 2 cr.**

Corequisite: MAT 1033 or a satisfactory score on the algebra placement test. This course is for students who need more skill and experience with applications of the mathematics

required in general chemistry. It is recommended for students with weak backgrounds in chemistry and applied algebra. Two contact hours.

CHM 1020 Chemistry for Liberal Arts (P) 3 cr.

The student will benefit by taking high school algebra or MAT 0024 prior to enrolling in this course. This course, designed to meet the general education requirement for the non-science major, is designed especially for the student who wishes to gain an understanding of the fundamental nature of physical science from the chemical point of view. The treatment utilizes an approach to scientific concepts and methods, stressing and illustrating principles rather than merely listing phenomena. Three contact hours.

CHM 1040C Introductory Chemistry I (P) 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 modern inorganic chemistry, including topics in structure of matter, gas laws, solutions, ionization, chemical equations, atomic theory, acids and bases, metals and non-metals. 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 1041C Introductory Chemistry II (P) 4 cr.

Prerequisite: CHM 1040C. This course is a continuation of CHM 1040C with an introduction to organic chemistry. Six contact hours: three class hours; one three hour laboratory.

CHM 1045C General Chemistry and Qualitative Analysis I (P) 4 cr.

Prerequisite: One year of high school chemistry and two years of high school algebra or grade of C or better in CHM 1041C. This course, designed to introduce the student to modern chemical concepts, includes modern atomic structure and periodicity, 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 1046C General Chemistry and Qualitative Analysis II (P) 4 cr.

Prerequisite: Grade of C or better in CHM 1045C. This course, a continuation of CHM 1045C, stresses chemical equilibrium, chemical kinetics, electrochemistry, oxidation-reduction, and selected families of metals and non-metals. Laboratory work includes studies of ionic equilibrium in aqueous solutions and semi-micro qualitative analysis. Six contact hours: three lecture hours; one three-hour laboratory.

CIS - Computer and Information Systems

CIS 1101 Introduction to dBASE III (D) 1 cr.

This five-week course introduces individuals to basic models and capabilities of standard data base management systems packages. Data base roles and advantages will be explained. Experience within this course is centered around data base programs that run on microcomputers. A series of data base application projects in dBASE III are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports, are covered. This course does not include programming in a fourth generation data base language. Four contact hours: three lecture hours; one laboratory hour.

CIS 1115 Advanced dBASE III (D) 2 cr.

Prerequisite: CIS 1101; or working knowledge of dBASE III software. This ten-week course provides individuals with basic models and capabilities of standard data base management systems packages. Data base roles and advantages will be explained. Experience within this course is centered around data base programs that run on microcomputers. A series of data base application projects in dBASE III are designed to build familiarity with creating, loading, maintaining, and updating the data base. Conducting data base queries, and building data base reports are covered. This course includes programming in a fourth generation data base language. Projects in the course relate to construction on integrated business systems. Four contact hours: three lecture hours; one laboratory hour.

CIS 2100 Data Management and Utility Programs (D) 3 cr.

Prerequisite: CIS 2301. This course consists of a study of the organizations, access methods, and job control statements as well as the use of utility programs as components of an application system to build and maintain files. Topics include an introduction to data bases and data base management systems. Four contact hours: three lecture hours; one laboratory hour.

CIS 2116 Data Base Management Concepts and Practices (D) 3 cr.

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

CIS 2301 Information Systems (O) 3 cr.

Prerequisite: CIS 2100. 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 designs, and program specifications. The course also covers examples of applications and various types of processing systems including batch, on-line, and distributed systems along with an overview of the system development life cycle of an information system. Four contact hours: three lecture hours; one laboratory hour.

CIS 2325 Computer Systems Development (with High Level Tools) (D) 3 cr.

Prerequisites: COC 1300 and CAP 1820, 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, or 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.

CJD - Criminal Justice Development

CJD 2310 Police Supervision (D) 3 cr.

This introductory course, designed to acquaint future and present police supervisors with an understanding of the various functions of supervision, examines the supervisor's responsibilities and assignments. The general topical areas include techniques of working with people, communica-

tions, personnel selection and training, motivation, principles of organization and management, disciplinary methods, and performance ratings. Three contact hours.

CJT – Criminal Justice Technology

CJT 2100 Criminal Investigation I (D) 3 cr.

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

CJT 2110 Criminal Investigation II (D) 3 cr.

With Criminal Investigation I as a 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 homicide. Special attention afforded in acquainting students with modern scientific services available in the crime laboratory including fingerprints, ballistics, hairs, fibers, and other material found at the crime scene. Three contact hours.

CNM – Computational/Numerical Methods

CNM 1005 Data Processing Mathematics (D) 3 cr.

Prerequisites: COC 1300, MAT 0003 or satisfactory score on the mathematics placement test. This essential course for data processing majors includes binary, octal, and hexadecimal numbers; fixed point storage; computer codes; packed decimal arithmetic; the real number system; approximations; accuracy and precision; scientific notation; floating point notation and storage; and logical forms and operations. Computer laboratory exercises will utilize demonstrations in various topics and techniques presented in the classroom. Four contact hours: three lecture hours; one laboratory hour.

COA – Consumer Affairs

COA 1100 Consumer Decisions (D) 3 cr.

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

COC – Computer Concepts

COC 1300 Introductory Computer Concepts (D) 3 cr.

This course, intended for students with no previous experience in data processing, introduces them to the field of data processing and includes a brief history of the evolution of computers to state-of-the-art, a review of pertinent numbering systems, a study of the basic components of computer and how they relate, elementary problem solving utilizing a high-level language, and a discussion of the various types, applications, and life cycle of computer-based information systems. Four contact hours: three lecture hours; one laboratory hour.

COC 2001 Computer Concepts (D) 3 cr.

This course is an introduction to the computer. The course teaches computer literacy, emphasizing concepts of hardware and software including programming demonstration on the Apple II and Apple IIe computer. The course includes a survey of the central processing units and its functional

component, auxiliary storage devices and functions, input and output units, the program development process, programming languages, operating systems, and data communications. The course includes a demonstration of programming in machine language. Three contact hours.

COP – Computer Programming

COP 1000 Introduction to Programming and Algorithm Design (O) 3 cr.

Corequisite: COC 1300. This essential first course for data processing majors introduces the fundamentals of computer usage, covering topics such as editor functions, file system use, and program compilation and execution. The course also includes algorithm design using structured flowcharting and pseudocoding techniques. The programming language Pascal, introduced and used throughout the course, will supplement the theoretical foundations that are being built. Four contact hours: three lecture hours; one laboratory hour.

COP 1160 RPG Programming (D) 3 cr.

Prerequisite: COC 1300. RPG (Report Program Generator) is a problem oriented programming language designed essentially to obtain data from single or multiple files, perform calculations and table lookup as required and write reports and/or update files. Students will solve elementary to moderately complex business problems by (a) writing RPG programs, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours; one laboratory hour.

COP 1270 Introduction to UNIX Operating System (D) 2 cr.

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

COP 1618 Introduction to IBM Personal Computers and DOS (D) 1 cr.

This five-week course is aimed at individuals who wish to master use of personal computers for personal productivity and enjoyment. The course is directed toward novices, first-time owners of personal computers, and persons who would like to learn more about their computer. Covered in the course are topics such as care and handling of hardware and peripherals, the disk operating system and its utilities, programming in BASIC language, and word processing. The course is oriented toward use of the IBM PC and IBM XT computers. Four contact hours: three lecture hours; one laboratory hour.

COP 2110 Programming FORTRAN (D) 3 cr.

Prerequisites: COC 1300 and one of the following: MTB 1321, CNM 1005, MAT 1033. This is a comprehensive study of a scientific programming language which is also used in business applications in batched-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 2120 Basic COBOL Programming (D) 3 cr.

Prerequisites: COC 1300 and COP 1000. COBOL (Common Business Oriented Language) is the programming language

specifically designed to solve business problems. Students will solve elementary to moderately complex business problems by (a) writing COBOL programs, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours; one laboratory hour.

COP 2121 Advanced COBOL Programming (D) 3 cr.

Prerequisite: COP 2120 or equivalent experience. COBOL (Common Business Oriented Language) is the programming language designed to solve business problems. Students will solve moderately complex business problems by (a) writing COBOL programs, (b) submitting programs for compilation and running on the College's computer system, and (c) thoroughly debugging programs until the output is perfect. Four contact hours: three lecture hours; one laboratory hour.

COP 2130 PL/I Programming Language (D) 3 cr.

Prerequisite: COP 1000. This course includes the study and application of PL/I as applied to business operations. Included within the curriculum will be six weeks of application programming where the student will write and run programs on the College computer system. Four contact hours: three lecture hours; one laboratory hour.

COP 2170 Programming in BASIC (D) 3 cr.

Prerequisites: COC 1300 or COC 2001 and one of the following: MTB 1321, COP 1000, MAT 1033. This beginning level computer course uses the BASIC (Beginner's All-purpose Symbolic Instruction Code) language in an interactive environment. Students will solve a variety of problems drawn from the areas of business, engineering mathematics and simulation. Four contact hours: three lecture hours; one laboratory hour.

COP 2171 Advanced Programming in BASIC (O) 3 cr.

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

COP 2394 Command-Level CICS Programming (O) 3 cr.

Prerequisites: COP 2120 and CIS 2100. This course provides training in Customer Information Control Systems/Virtual Storage (CICS/DOS/VS), a general purpose data base and data communication interface between an operating system and application programs. Students will solve problems using CICS to design, code, debug, and test application programs. Four contact hours: three lecture hours; one laboratory hour.

COP 2400 Basic Assembly Language Programming (D) 3 cr.

Prerequisites: COP 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, Introductory ALC, or Beginning ALP. Students will analyze business problems involving sequential files; develop logic flowcharts; translate flowcharts into IBM System 360-370 DOS Assembler Language codes; incorporate job control statements to form a program deck; and test, debug, and document their computer solutions to business problems. Four contact hours: three lecture hours; one laboratory hour.

COP 2610 Advanced Computing and Programming Systems (D) 3 cr.

Prerequisite: COP 2120 and proficiency in computer programming. This course will include the study of computer

architectures, operating systems, language translators, and data communication/teleprocessing with lectures, discussions, demonstrations, and lab problems based primarily on the software currently implemented on the ECP-18, Prime 400, and the central computer system at Florida Junior College. Four contact hours: three lecture hours; one laboratory hour.

COP 2612 Microcomputer Operating Systems Concepts (D) 3 cr.

Prerequisites: COC 1300 and CAP 1820; 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 in initialing diskettes, 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 communications, 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 (P) 3 cr.

This course consists of a comparison of the institutions and the economic systems of capitalism and socialism associated with the political systems of specific countries. Three contact hours.

CRM – Computer Resources/Management

CRM 1039 Data Processing Workshop (D) 3 cr.

Prerequisite: COC 1300. This course provides the opportunity for students to gain actual work experience within operating data processing centers. Primary emphasis will be on the operation of equipment in the Florida Junior College at Jacksonville Data Center and the Data Processing Lab., including the Prime 400 computer system. Students will become familiar with the operation of computer systems and special peripheral devices in other data processing shops. Eight contact hours: three lecture hours; five laboratory hours.

CRW – Creative Writing

CRW 2000 Imaginative Writing (P) 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.

CTE – Clothing and Textiles

CTE 1310C Basic Clothing Construction (D) 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.

CTE 1340C Advanced Clothing Construction (D) 3 cr.

Prerequisite: CTE 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.

CTE 1350C Tailoring I (D) 3 cr.

Prerequisite: CTE 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 an individualized approach to custom design, fit, advanced construction, and tailoring techniques. Four contact hours: two lecture hours; two laboratory hours.

CTE 1401C Basic Textiles (D) 3 cr.

This course, a study of fabrics used for clothing and house furnishings, emphasizes fibers, yarns, constructions, designs and finishes that determine qualities and the performance of a fabric. This course also includes the use and care of fabrics and cost factors. Four contact hours: two lecture hours; two laboratory hours.

CTE 1812 Introduction to Fashion Merchandising(O) 3 cr.

This course, an introduction to the clothing and textiles industry, includes the exploration of career opportunities, consumer behaviors, the historical development of fashion, the environmental influences on fashion demand, and the marketers of fashion. Three contact hours.

CTE 1825 Merchandising Mathematics and Buying Procedures (O) 3 cr.

Prerequisite: CTE 1812. This in-depth study of retail operation includes an analysis of store organization, buying functions and techniques, and sales promotion as related to the clothing and textiles industry. Three contact hours.

CTE 1840 Fashion Merchandising Product Information (O) 3 cr.

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

CTE 2200 Wardrobe Planning and Updating (O) 3 cr.

This course provides for the development of competency in planning individual and family wardrobes. Factors to consider in purchasing wardrobe items are stressed as well as the care, maintenance, and updating of various wardrobe components. Emphasis will be placed on the psychological and social factors influencing dress and the relationship of physical appearance to clothing selection. Attention will be given to the effectiveness of clothing choices in professional situations. The course includes experiences in the application of elements and principles of design to wardrobe coordination. Three contact hours.

CTE 2283 Fashion Merchandising Computer Applications (O) 3 cr.

Prerequisite: CTE 1825. This course is an examination of the advantages and techniques of computer use in retailing. The course will emphasize applications of computer generated information, and include a study of merchandising law and the impact of legislation on retailing activities. Three contact hours.

CTE 2851 Fashion Sales Promotion (O) 3 cr.

This course presents the methods most commonly used by fashion merchants for promoting sales. Instruction will include an evaluation of the effectiveness of the various types of advertising, visual merchandising, fashion show, and personal selling according to individual retail needs. Three contact hours.

CTE 2880 Fashion Merchandising Internship (O) 8 cr.

Prerequisite: Completion of all other program requirements. This course, a supervised on-the-job training program, requires students to work a minimum of 400 total hours for a minimum of 12 weeks in an approved retail business. This cooperative education experience will provide students the opportunity to practically apply knowledge gained in the prerequisite courses. The instructor will make on-site visitations to monitor student progress and performance. Additionally, each student will attend a two-hour on-campus seminar every other week conducted by the classroom instructor. Thirty-three contact hours: one lecture/discussion; thirty-two on-the-job experience.

CTE 2892 Fashion Merchandising Management Seminar (O) 3 cr.

Prerequisites: Must be a second-year student and have completed CTE 1310C, CTE 1401C, CTE 1812, CTE 1825, CTE 1840. This course is a study of management practices and techniques in the fashion retailing industry. The course emphasizes recruitment and selection of qualified personnel, training, and supervisory techniques. Three contact hours.

DAA – Dance Activities**DAA 1000 Recreational Dance (P) 1 cr.**

This course consists of the introduction and practice of the basic dance skills for enjoyment and recreation. Course content includes round, folk, square, social and current "teen-age" dancing. Two contact hours (activity).

DAA 1340 Folk Dance (P) 1 cr.

This course consists of the exploration and enjoyment of the fundamental steps, positions, and formations of the popular American and ethnic folk and round dances. Two contact hours (activity).

DEA – Dental Assisting**DEA 1000 History and Jurisprudence of Dentistry (O) 1 cr.**

This course presents a knowledge of the Code of Ethics for dental assistants and the laws which govern the practice of dentistry. The student must have this previous dental experience before taking this course. One contact hour.

DEA 1120 Science for Dental Assistants (O) 3 cr.

This course, preceded by anatomy and physiology, includes Oral Pathology – a knowledge of etiology dental caries control and a familiarity with common periodontal diseases; Pharmacology – a knowledge of the drugs commonly used in the dental treatment; the responsibilities in the use of such drugs, and a knowledge of the standards set forth by the Food and Drug Administration of the Department of Health, Education and Welfare; First Aid – a knowledge of and ability to administer first aid treatment or combat emergency situations which may occur. Three contact hours.

DEA 1820C Dental Assisting Expanded Duties (O) 2 cr.

This course, designed to teach the dental assistant student expanded duties as permissible by the Florida State Dental Practice Act, will include new procedures as traditional ex-

panded functions are ratified by the Department of Professional Regulations, Board of Dentistry (Chapter 21G-16). This course also includes the manipulation of dental materials utilizing dental assisting techniques. Three contact hours: one lecture hour; two laboratory hours.

DEA 2200 Office Management (O) 3 cr.

This course develops the student's ability to receive and dismiss patients; understand the behavior patterns of people, including parental attitudes; make appointments and maintain appointment books; communicate by telephone with patients and salesmen; respond to emergencies and patients with a grievance; keep financial records; maintain an efficient recall and patient record file; keep books and records for tax purposes; do banking; write business letters; and purchase and maintain supplies. Three contact hours.

DEA 2800C Clinical Practice I (O) 5 cr.

This course provides the dental assisting student with a knowledge of chairside assisting, equipment and its installations; basic maintenance and care of equipment; a knowledge of names, design, use of, and the understanding of sterilizing agents for the proper care and maintenance of all instruments commonly employed in a dental office; the ability to select and prepare properly all instruments for operative, prosthetic, endodontic, orthodontic, and surgical procedures in accordance with instructions from the dentist; the ability to recognize promptly the operative needs of the dentist; and ability to properly maintain a clear operation field. Eight contact hours: two lecture hours; six laboratory hours.

DEA 2801C Clinical Practice II (O) 6 cr.

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

DEA 2802C Clinical Practice III (O) 3 cr.

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

DEA 2850C Clinical Practice IV (O) 5 cr.

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

DEH – Dental Hygiene

DEH 1003C Principles of Dental Hygiene (O) 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 in technical skills necessary to prepare the student to begin preventive periodontic patient services the following semester. Eight contact hours: two lecture hours; six laboratory hours.

DEH 1700 Dental Health Education (O) 3 cr.

This course incorporates the principles, practices, methods, and visual aids used in teaching dental health education to the public who may be in a dental office, school, public health institution, club, or industry. It is a study of teaching concepts and practices of preventive dentistry. The students gain practical experience through teaching dental health

education in elementary and secondary schools in the community during the entire National Children's Dental Health Week. Three contact hours.

DEH 1800C Clinical Dental Hygiene I (O) 6 cr.

Prerequisite: DEH 1003C. 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 hygiene practice for continuing refinement of technical skills and an opportunity to gain extensive experience in the areas of dental hygiene education. This course will also include CPR. Ten contact hours: two lecture hours; eight clinical hours.

DEH 1802L Clinical Dental Hygiene II (O) 8 cr.

Prerequisite: DEH 1800C. This course, a continuation of the practical application of the competencies and skills acquired in Principles of Dental Hygiene, DEH 1003C, and Clinical Dental Hygiene I, DEH 1800C, devotes time to providing oral prophylaxis care for patients, who present varying classifications of prophylaxis needs. The course emphasizes the continuing refinement of the techniques and skills in performing an oral prophylaxis including Gracey curets in root planing, periodontal and dental charting, radiographic techniques and interpretations, dietary analysis, and efficiency and care in the management of patients, including those with special needs. Sixteen contact hours (clinic).

DEH 2507C Dental Hygienists Expanded Duties (O) 2 cr.

This course, designed to teach the dental hygiene students expanded functions as permissible by the Florida State Dental Practice Act, will include new procedures as traditional expanded functions are ratified by the Department of Professional Regulations, Board of Dentistry (Chapter 21G-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 (O) 2 cr.

This course, designed to give the student a detailed study of the factors involved in periodontal pathology and its etiology, reviews in detail the anatomy, physiology, and histology of the periodontium. This course emphasizes diagnosis, prognosis and treatment of patients with periodontal involvement, and management of patients returning for maintenance care. The course also teaches procedures and techniques for soft tissue curettage, periodontal dressing placement and removal, and suture removal. Two contact hours.

DEH 2701 Community and Preventive Dentistry (O) 3 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 2702C Community Dental Health (O) 2 cr.

This course is a comprehensive study of oral health problems of groups of people in the community. The students plan approaches to groups, assemble resources, deliver health material, survey and resurvey, and prepare statistical analysis on these groups. The student receives concentrated field experience in public health centers, Title I schools, hospitals and nursing homes, and centers for the handicapped. Four contact hours: one lecture hour; three field hours.

DEH 2804L Clinical Dental Hygiene III (O) 8 cr.
Prerequisite: DEH 1802L. This course, a continuation of DEH 1802L, emphasizes the continuing refinement and increased efficiency of clinical skills including complete prophylaxis procedures, radiographs, tact 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 degree of proficiency. Sixteen contact hours (clinic).

DEH 2806L Clinical Dental Hygiene IV (O) 8 cr.
This course is a continuation in refinement of practical application of the competencies and the proficiencies in skills learned in all the past clinical didactic courses. Emphasis is on speed and quality improvement, and upon exposure to community dentistry participating in offices of general dentists, dental specialties, and hospital dentistry. The student should achieve an exit level degree of proficiency. Sixteen contact hours (clinic).

DEH 2930 Dental Hygiene Seminar I (O) 2 cr.
This course, designed to provide a more comprehensive content coverage in all specialties of dentistry, enables the dental hygiene student to become more cognizant of techniques and procedures in dentistry outside the perimeters of dental hygiene. The course consists of discussions designed to assist the dental hygiene student to understand and appreciate the several aspects of dentistry to which dental hygiene services are closely allied. Two contact hours.

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

DEP – Developmental Psychology

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

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

DEP 2302 Adolescent Psychology (P) 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 (P) 3 cr.
This course examines the physical, social, intellectual and personal characteristics of the human being during early, middle and late adulthood. The course will investigate key events in adult life, such as marriage, choice of occupation, parenthood, and retirement, along with other developmental tasks and stages. Three contact hours.

DES – Dental Support

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

DES 1110C Dental Materials and Laboratory (O) 3 cr.
This course is a series of lecture-demonstrations designed to acquaint the dental assistant/dental hygiene students with the nomenclature, proper 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 Hygiene) (O) 3 cr.
This course, designed to teach the proper use of dental x-ray equipment, including radiation safety, in the taking, processing, and mounting of dental radiographs, both intra-oral and extra-oral, includes evaluation techniques, identifying landmarks and deviations from the normal, and the filing of dental radiographs. Four contact hours: two lecture hours; two laboratory hours.

DES 2042 Oral Pathology (O) 2 cr.
This course gives the student a detailed understanding and knowledge of the causes and mechanisms of oral disease, oral trauma and oral developmental anomalies. It relates this knowledge to the systematic physiology of the body. Two contact hours.

DES 2050 Pharmacology (O) 2 cr.
This course gives the student a detailed study of the principles, characteristics, actions, reactions, and uses of anesthetics, drugs, medicaments, and preparations used to prevent, control and treat diseases. Two contact hours.

DIE – Dietetic

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

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

ECO – Economics

ECO 2000 Foundations of the American Economy (P) 3 cr.
This survey of the American economic system and its development guides the student in a practical examination of the contemporary operation of regulated capitalism in the United States. The course considers business organizations, the market system, gross national product, banking and finance, problems in employment, and various other aspects of the government's relation to the national economy. Three contact hours.

ECO 2013 Principles of Economics I (P) 3 cr.
This course in macroeconomics 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 2023 Principles of Economics II (P) 3 cr.
Prerequisite: ECO 2013 or consent of professor. This course in microeconomics is a continuation of ECO 2013 and includes a study of the tools for economic analysis, the market system price theory, theory of the firm, and theories of production and distribution and international trade. Three contact hours.

ECP – Economic Problems and Policies

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

EDF – Education Foundations

EDF 1005 Introduction to Education (P) 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 2940 Observing and Recording Child Behavior (D) 6 cr.
Prerequisites: CHD 1220 and EEC 1001. This course, designed to increase the student's objectivity and proficiency in observing and interpreting children's behavior, provides for participating in supervised experiences with the children in the laboratory. This course includes lecture, observation, and participation facilities for the study of young children. Ten contact hours; two lecture hours; six laboratory hours; two field hours.

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

EDP – Educational Psychology

EDP 2002 Educational Psychology (P) 3 cr.
Prerequisite: PSY 1012. This course consists of an in-depth study of the relationships between sound psychology and educational process 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 1001 Introduction to Early Childhood Education (D) 3 cr.
This course is an introduction intended to acquaint the student with basic principles involved in guiding the young child. The course also includes history of the field of early childhood, objectives of early childhood programs, parent and community involvement, minimum licensing standards, and job opportunities. Three contact hours.

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

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

EER – Electrical/Electronics Repair

EER 1004 Blueprint and Schematic Reading (O) 3 cr.
Blueprint and Schematic Reading is a survey course of the principles and practices involved in reading and interpreting electrical blueprints and schematics. Four contact hours; two lecture hours; two laboratory hours.

EER 1030 Safety in Electrical Trades (O) 3 cr.
This course covers general safety and fire fighting, electrical safety and fire fighting, first aid for the electrical shock victim, CPR, and an introduction to OSHA. Three contact hours.

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

EER 1100 Electrical Theory I (O) 3 cr.
This course covers the fundamental concepts of electricity, batteries, DC series, parallel and complex circuits, electrical conductors, electromagnetism and magnetic circuits, and DC electrical indicating instruments. Four contact hours; three lecture hours; one laboratory hour.

EER 1210 Electrical Theory II (O) 3 cr.
Prerequisite: EER 1100. This course, a continuation of EER 1100, covers an introduction to alternating current, inductance, capacitance, inductive and capacitive reactance, fundamental AC circuitry, and single phase transformers. Four contact hours; three lecture hours; one laboratory hour.

EER 1211 Introduction to Circuit Analysis (O) 3 cr.
Prerequisite: EER 1210, or with the professor's consent. This course is a lecture/laboratory exercise in the design and application of L-C-R circuits. The course includes motors, generators and transformers. Six contact hours (laboratory).

EER 1291 Semiconductor Devices (O) 4 cr.

Prerequisite: EER 1210. This course includes the theory and design of vacuum tubes and semiconductors. The course will also explain the various configurations, biasing methods, and basic applications in both class and laboratory conditions. Six contact hours: two lecture hours; four laboratory hours.

EER 2068 Mechanical Skills for Electricians (O) 3 cr.

This course acquaints the industrial electrician with the proper methods of troubleshooting, disassembly, repair, re-assembly, adjustment, alignment and testing of brakes, clutches, gear trains, drives, couplings, and synchro-servu systems. Four contact hours: two lecture hours; two laboratory hours.

EER 2131 Control of DC Machines (O) 3 cr.

Prerequisite: EST 2110. This course covers the principles, operations, characteristics, and troubleshooting of magnetic and solid state direct current motor controls. Four contact hours: two lecture hours; two laboratory hours.

EER 2222 Control of AC Machines (O) 3 cr.

Prerequisite: EER 2131. This course covers the principles, operation, characteristics, and troubleshooting of magnetic and solid state alternating current motor controls. Four contact hours: two lecture hours; two laboratory hours.

EER 2261 AC/DC Machinery and Transformers (O) 3 cr.

Prerequisite: EER 1210. This course is an introduction to AC/DC machinery beginning with electric motors and generators. It covers their construction, operating characteristics, types and applications. It also covers single and polyphase transformers covering construction, theory, characteristics and applications. Four contact hours: two lecture hours; two laboratory hours.

EER 2311 Home Appliances, Maintenance and Service I (O) 4 cr.

Prerequisite: EER 1210. This course teaches the necessary skills in repair, service and installation of appliances, the correct use of test equipment, reading wiring diagrams, schematic tracing, timer sequence charts, the removal and reinstallation of components, and the troubleshooting of the clothes washer and dryer. Six contact hours: two lecture hours; four laboratory hours.

EER 2312 Home Appliances, Maintenance and Service II (O) 4 cr.

Prerequisite: EER 1210. This course teaches the necessary skills in service and repairs, the installation of appliances, the proper use of test equipment, reading wiring diagrams, schematic tracing timer sequences charts, the removal, test and reinstallation of major components, and the troubleshooting of the dishwasher and water heater. Six contact hours: two lecture hours; four laboratory hours.

EER 2351 Test Equipment Maintenance and Service (O) 4 cr.

Prerequisite: EER 2411. This course includes instruction in the circuitry, troubleshooting method, repair and calibration of major types of test equipment used in the electronic field. The course also includes "hands-on" experiments. Eight contact hours (laboratory).

EER 2352 Advanced Electrical/Electronic Systems (O) 3 cr.

Prerequisite: EER 2360, or with professor's consent. This course is a study in the measuring devices and control systems utilized in industrial electronics and other related fields such as power, motor control, light dimmers, smog detectors, fire alarms, burglar alarms, pressure, weight and frequency control circuits/devices. The student will design and test these in both classroom and laboratory exercises. Six contact hours (laboratory).

EER 2360 Basic Circuit Diagnosis and Repairs (O) 4 cr.

Prerequisite: EER 2821, or professor's consent. This course will demonstrate in classroom the tools used, the methods of troubleshooting and the repair of circuits described in EER 2821. The student will prove these methods and perform these repairs in the laboratory exercise with "live" equipment. The course also will explore some communications circuits. Eight contact hours (laboratory).

EER 2401 Industrial Electrical Installations (O) 3 cr.

This course consists of the teaching of electrical services, branch circuit installations, power distribution systems, bus transfers, conduit installations, and design of electrical wiring for industrial applications. Four contact hours: two lecture hours; two laboratory hours.

EER 2411 Digital Electronics (O) 4 cr.

Prerequisite: EER 2352. This course will demonstrate base 2-5-8 and 16 numbering methods and their application to mathematical problems along with Boolean algebra. The course also includes the application of binary in both lecture and laboratory to describe the function of various logic gates/families and operational amplifiers. Eight contact hours (laboratory).

EER 2451 Heating and Air Conditioning For Electricians (O) 3 cr.

This course covers the electrical components, systems, and operation of modern heating and air conditioning equipment. This course also presents industrial applications, servicing procedures, and troubleshooting in the classroom followed by practical experience in the laboratory. Four contact hours: two lecture hours; two laboratory hours.

EER 2821 Non-Sinusoidal Electronics (O) 4 cr.

Prerequisite: EET 2139. This course explores, in laboratory, various circuits and systems which are designed to operate with non-sinusoidal waveforms, and in some cases both sinusoidal and non-sinusoidal at the same time. This course includes many of the circuits contained in radar, navigation aids and computer circuits. Eight contact hours (laboratory).

EET - Electronic Engineering Technology**EET 1004 Fundamentals of General Electricity (D) 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 1015C DC Theory and Circuits (D) 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; Thevenin'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 modern electronics measuring equipment. Five contact hours: three lecture hours; two laboratory hours.

EET 1025C AC Theory and Circuits (D) 3 cr.

Corequisite: MAC 1114; Prerequisite: EET 1015C. This course consists of the study of wave-forms with emphasis on sinusoidal waves and the analysis of steady-state electrical circuits. Topical Units of instruction include: Sinusoidal Al-

ternating Current Phasors, Series and Parallel AC Circuits and Networks, Power, Transformers, Resonance, 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 2119C Amplifier Circuits (D) 3 cr.

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

EET 2121C Introduction to Solid State Electronics (D) 3 cr.

Prerequisite: EET 1015C. Corequisite: EET 1025C. 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 2139 Sinusoidal Electronics (O) 3 cr.

Prerequisite: EER 129J, or with professor's consent. This course teaches and tests the many circuits used in industry and other related electronic fields. These circuits include power supplies, amplifiers, oscillators utilizing bipolar and special designed semiconductor devices. This course will discuss and fabricate printed circuit boards in the laboratory. Six contact hours (laboratory).

EET 2142C Linear Semiconductor Analysis (D) 3 cr.

Prerequisite: EET 2119C. This course is a study of 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 considers in detail Feedback, Frequency Effects, and Voltage Regulation. Four contact hours: two lecture hours; two laboratory hours.

EET 2324C Communications Electronics I (O) 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 to specialize in Communications Electronics. Four contact hours: three lecture hours; one laboratory hour.

EET 2335C Communications Electronics II (O) 3 cr.

Prerequisite: EET 2324C. This course, a continuation of a two-course sequence in communications electronics, includes the transmission and radiation of signals, transmission lines and antennas, telephone and video systems, and digital communications systems. Four contact hours: three lecture hours; one laboratory hour.

EET 2940 Biomedical Practicum (O) 3 cr.

Prerequisites: EET 2142C, EST 2112, EST 2436C. 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 training and "on the job" training with practicing BMETs. Eight contact hours: all laboratory.

EGN – Engineering: General

EGN 1130C Descriptive Geometry (D) 3 cr.

Prerequisite: ETD 1100C. The course consists of theory and practice in solving graphic problems involving point, line,

and space relationships. Four contact hours: two lecture hours; two laboratory hours.

**EHD – Education:
Hard of Hearing and Deaf**

EHD 1000 Orientation to Deafness (D) 3 cr.

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

EHD 1400 Introduction to Interpreting (D) 3 cr.

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

EMS – Emergency Medical Services

EMS 1059 First Responders: Emergency Care Training (D) 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 1119, as prerequisite skills are a part of the course content. This course may not be an elective for students entering the AS or Certificate Paramedic program. Three contact hours.

EMS 1119 Fundamentals of Emergency Medical Care (D) 6 cr.

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

EMS 1119L Fundamentals of Emergency Medical Care Clinical Experience (D) 2 cr.

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 a requirement for this class. Four contact hours: three clinical hours; one laboratory hour.

EMS 2231 EMT-Paramedic Phase I (D) 6 cr.

Prerequisites: EMS 1119, EMS 1119L, APB 2190C; Corequisites: EMS 2231L, APB 2191C. The first of a three-term sequence of instruction for the EMT paramedic, includes the following: the EMT, Human Systems and Patient Assessment, Shock and Fluid Therapy, Respiratory System and Management of Emotional Crisis. Six contact hours.

**EMS 2231L EMT-Paramedic
Phase I
Lab/Clinical (D) 3 cr.**

Prerequisites: EMS 1119, EMS 1119F, APB 2190C; Corequisites: EMS 2231 and APB 2191C. The clinical program consists of a three-term sequence. This clinical segment will include an emergency room and psychiatric in-hospital rotation. Laboratory and clinical application of experiences are a continuum of EMS 2231. Six contact hours; two laboratory hours; four clinical hours.

**EMS 2232 EMT-Paramedic
Phase II (D) 5 cr.**

Prerequisites: EMS 2231, EMS 2231L and APB 2191C. 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, Central Nervous System, Telemetry and Communications. Five contact hours.

**EMS 2232L EMT-Paramedic
Phase II
Lab/Clinical (D) 3 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 (D) 4 cr.**

Prerequisites: EMS 2232, EMS 2232L. Corequisite: EMS 2233L. The last part of the three term sequences of EMT-Paramedic instruction includes the following modules: Soft Tissue Injuries, Musculoskeletal System, Medical Emergencies, Obstetric/Gynecologic Emergencies, Extrication/Rescue Techniques, Pediatric and Neonate Transport. Four contact hours.

**EMS 2233L EMT-Paramedic
Phase III
Lab/Clinical (D) 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 in a local surgical facility. Twelve contact hours; one laboratory hour; eleven clinical hours.

ENC – English Composition

**ENC 0002 Introduction to Composition
(College Preparatory Course)**

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

ENC 1101 English Composition I (P) 3 cr.

Prerequisite: Satisfactory score on placement test. This course embodies the fundamentals of effective expression with emphasis on various forms of expository writing on logical and imaginative thinking and reading for understanding. The course provides instruction in sentence structure,

diction, organization of short essays and correct usage of standard American English. This course includes writing competencies. Three contact hours.

ENC 1102 English Composition II (P) 3 cr.

Prerequisite: ENC 1101. As a continuation of ENC 1101, this course includes study and practice in research writing and writing competencies. Three contact hours.

**ENC 1131 Introduction to
Critical Writing (P) 3 cr.**

As additional preparation for the argumentation and research, this course sharpens the students' critical thinking skills and improves their ability to compose analytical, interpretive, and evaluative essays in response to selected reading assignments. This course is designed for students who have successfully completed ENC 1101, but seek additional preparation for ENC 1102. Thus, students who have successfully completed ENC 1102 should not take this course. Three contact hours.

**ENC 2210 Technical Report
Writing (D) 3 cr.**

Prerequisite: ENC 1101. This is a communications course giving primary emphasis to writing for the professions. The course places stress on the use of factual information in descriptive, analytical and researched recommendation reports. The course also provides instruction in writing effective and timely letters, memoranda and informational reports; developing graphs and illustrations; and presenting oral reports. Three contact hours.

ENL – English Literature

**ENL 2013 English
Literature I (P) 3 cr.**

Prerequisite: ENC 1102. This course, an introduction to the main literary traditions from Beowulf through the Restoration and Eighteenth Century, studies the best and most characteristic writings of these periods. Three contact hours.

**ENL 2023 English
Literature II (P) 3 cr.**

Prerequisite: ENC 1102. This course, an introduction to the main literary traditions from the Romantic and Victorian periods to the present, studies the best and most characteristic writings of these periods. Three contact hours.

EST – Electronic Specialty Technology

**EST 1412 Biomedical Technology
and Techniques (O) 2 cr.**

Prerequisite: ETI 1725. This course, designed to introduce the students to the hospital, biomedical equipment manufacturers, and the contract maintenance organizations, emphasizes the organizational structure of the hospital and identifies the role of the BMET within this framework. The course will also introduce students to the literature in professional journals covering facets of the BMET's job, with particular emphasis on instrument critiques, electrical safety standards, and new products. Finally, the course will utilize a system approach in analyzing how technology is applied in the health care setting, from the medical and administrative management viewpoints. Systems analyzed will include intensive care unit, cardiovascular diagnostic laboratory and operating rooms. Two contact hours.

**EST 2110 Industrial Applications
of Solid State Devices (O) 4 cr.**

Prerequisite: EER 1291. This course covers the principles of operation of solid state semiconductor devices, and explains various circuit configurations and basic applications in the classroom followed by corresponding laboratory experience. Six contact hours; two lecture hours; four laboratory hours.

EST 2112 Electrical-Electronic Control Systems (D) 3 cr.

Prerequisite: EET 2119C. This course consists of the study of the operation and control of industrial equipment and processes including motors and the controlling systems involved in their operation and protection. Four contact hours: two lecture hours; two laboratory hours.

EST 2436C Biomedical Instrumentation I (O) 3 cr.

Prerequisites: CET 2113C, EET 2119C. This course introduces students to the biomedical equipment used in patient vital signs measurement and monitoring equipment, respiratory system measurement and monitoring and the clinical environment in which devices are used. Students will learn external operating characteristics of devices as well as internal circuitry. 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 2438C Biomedical Instrumentation II (O) 3 cr.

Prerequisite: EST 2436C. 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, radiology, 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.

EST 2603C Robotics (O) 3 cr.

Prerequisites: CET 2143C, EST 2112, ETG 2504C, ETM 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 technician to install and maintain robots and other related automated industrial equipment. Hands-on exercises with trainer robots in the areas of assembly, troubleshooting, and programming are required for each student. Four contact hours: three lecture hours; one laboratory hour.

ETC – Engineering Technology: Civil**ETC 2220C Soils and Foundations (D) 3 cr.**

Prerequisite: ETG 2535C. This course covers the criteria used in the selection, design, and construction of the elements of a structure that transfers its total load to the underlying formations. Theoretical aspects considered and treated are analysis of subsoil conditions, bearing capacity and settlement analysis, character of natural soil deposits, earth pressure and retaining wall theory, and stability of slopes and subgrades. This course also covers the basic types of prevalent foundations, their design and behavior characteristics. Four contact hours: three lecture hours; one laboratory hour.

ETC 2410C Structural Drafting (O) 3 cr.

Prerequisites: ARC 2120C, ETD 2121C. This course is a study of the required steel and concrete plans for building and the preparation of the shop details from those 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 2450C Concrete (D) 3 cr.

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

ETC 2500C Highway Drafting and Route Design (D) 3 cr.

Prerequisites: ETC 2410C, ETG 2504C. This course is concerned with the elements of a transportation roadway and their functions, the effects of traffic and functions, the effects of traffic and vehicular characteristics on road design, length of highway, curvature and elevation of roadbeds, and earthwork computations applied to highway route design. Four contact hours: two lecture hours; two laboratory hours.

ETC 2521C Hydrology and Hydraulics (D) 3 cr.

Corequisite: ETG 2535C. This course is a study of sources, collection, drainage areas, storm water runoff and pump sizing. The subject matter includes the laws of fluid mechanics, such as fluids, energy and head, pressure flow in pipes and pumps, and liquid flow in open channels. Students use laboratory time for fluid flow calculation and design. Four contact hours: three lecture hours; one laboratory hour.

ETD – Engineering Technology: Drafting**ETD 1100C Engineering Drawing (D) 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 1645C Mechanical and Electrical Drafting (D) 3 cr.

Prerequisite: ETD 1100C. Suggested Corequisite: EGN 1130C. 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 2121C Civil Drafting (D) 3 cr.

Prerequisite: ETD 1100C. This course prepares the student for the fundamental concepts of civil drafting as it pertains to the field of civil engineering. Using surveyor's notes, the student will demonstrate, in pencil and ink, drafting techniques essential in preparing topographic and geographic maps. The student will also draw plot plans using all appropriate symbols and terminology that are used in civil engineers' offices. Four contact hours: two lecture hours; two laboratory hours.

ETG – Engineering Technology: General**ETG 1201C X-Ray Physics (D) 3 cr.**

Prerequisites: MAC 1104 and EET 1015C. The course includes coverage of those fundamentals of physics required to fully understand the nature of x-rays, how x-ray machines work, and how other modern devices are used to enhance information from x-ray equipment. The course also covers processing radiographs, image intensification, special radiographic methods, along with a study of radiation hazards and protection and a field trip to medical diagnostic x-ray rooms. Four contact hours: three lecture hours; one laboratory hour.

ETG 2202C X-Ray Systems (D) 3 cr.

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

ETG 2204C X-Ray Practicum (O) 3 cr.

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

ETG 2205C X-Ray Imaging Systems (O) 3 cr.

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

ETG 2504C Engineering Mechanics (D) 4 cr.

Prerequisites: MAC 1114, ETI 1421C. This course is an introduction to the basic laws of mechanics and includes a study of force systems, moments, couples, static equilibrium, centroids, friction, work, and energy. The laboratory portion of the course will emphasize the practical aspects of the above topics and will include exercises in measurements, drive systems, linkages, support members, etc. Five contact hours: three lecture hours; two laboratory hours.

ETG 2535C Testing and Strength of Materials (D) 4 cr.

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

**ETI - Engineering Technology:
Industrial****ETI 1121 Introduction to Nondestructive Testing (O) 3 cr.**

This course reviews the basic principles underlying nondestructive testing. One purpose of the course is to stimulate interested students to seek additional information in more extensive works on nondestructive testing. Course will cover types of inspection, to include visual, radiographic, magnetic particle, ultrasonic, dye penetrant, eddy current, acoustical holographic, thermal, as well as new research and development in nondestructive testing. Three contact hours.

**ETI 1122C Nondestructive Testing:
Liquid Penetrants and
Magnetic Particles (O) 3 cr.**

Prerequisite: ETI 1121. The course includes the study of types and uses of liquid penetrants as they pertain to non-destructive testing to include development, application, compatibility and tests of penetrant materials. The course also includes a study of magnetic particle theory and test of materials and equipment. Four contact hours: three lecture hours; one laboratory hour.

**ETI 1421C Engineering Materials
and Processes (D) 3 cr.**

This course examines the major engineering materials used in industry, metallic and non-metallic, in terms of their properties, forming processes used, and their engineering applications. Three contact hours.

ETI 1700 Industrial Safety (D) 3 cr.

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

**ETI 1725 Biomedical Safety and
Terminology (O) 2 cr.**

Prerequisites: APB 2190C, EET 1025C. This course, designed to impart the knowledge essential to safe practices in the handling of biomedical patient-care devices, covers all aspects of regulations and guidelines as promulgated by the National Fire Protection Association (NFPA) and the Joint Commission on Accreditation of Hospitals (JCAH). The course provides training in medical terminology, with particular emphasis on applied anatomy and applied physiology. The students will gain proficiency in speaking, hearing, writing and defining medical terms. Two contact hours.

ETI 2681 Industrial Supervision (D) 3 cr.

The purpose of this course is to prepare the student for a role in the world of work as the student assumes responsibilities leading toward supervisory positions and management. Three contact hours.

**ETM - Engineering Technology:
Mechanical****ETM 2221 Elements of
Applied Energy (D) 3 cr.**

Prerequisites: MTB 1322, ETI 1421C. This introductory course in applied thermodynamics consists of the study of the transformation of energy to useful work through mechanical elements: heat engines, I.C. engines, compressors, turbines, and ancillary equipment. Three contact hours.

ETM 2310C Fluid Mechanics (D) 3 cr.

Prerequisites: MAC 1114, ETI 1421C. This course is a study of the laws involving the flow of fluids and their application of the processes, equipment and machines that are used in the energy-to-work transformation. The course emphasizes both hydraulics and pneumatics, and the laboratory exercises concentrate on fluid power. Four contact hours: three lecture hours; one laboratory hour.

**ETM 2610C Air Conditioning and
Heating (D) 3 cr.**

Prerequisites: MAC 1114 and ETI 1421C. This introductory course to environmental control of buildings and houses emphasizes equipment performance and system design. Three contact hours.

**ETM 2800 Fundamentals of
Metallurgy (O) 3 cr.**

This course, designed to teach the behavior, characteristics, terms and manufacturing process of ferrous and non-ferrous

metals, includes metal selection, altering metal performance with thermal and mechanical treatment, and powder metallurgy. Three contact hours.

EUH – European History

EUH 1000 Western Civilization through 1715 (P) 3 cr.

This course consists of a survey of the cultural beginnings of civilization and the diffusion and accumulation of culture through 1715: Ancient Egypt, Mesopotamia, Greece, Rome, Byzantium, Islam, the Medieval Period, the Renaissance, and the Protestant Revolt. Three contact hours.

EUH 1001 Western Civilization from 1715 to the Present (P) 3 cr.

This course in modern western institutions from 1715 to the present day includes the developing capitalistic system, absolutism, the Enlightenment, the era of revolutions, the Constitution of the United States, the development of democracy, the industrial revolution, nationalism, the world wars, and the cold war. Three contact hours.

FAD – Family Development

FAD 1230 Dynamics of Modern Living (D) 3 cr.

This course studies the interpersonal relationship of personal and family problems; analysis of the basic elements involved in courtship, mate selection, engagement, 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 home and family life education. Three contact hours.

FAD 1251 Parenting Your Child (O) 3 cr.

Instruction in this course emphasizes skills and concepts that conscientious parents of young children (ages 3-11) need. This course includes parent-child communication, self-concept and self-esteem development, discipline, cultivating strong families, sibling interaction, intellectual and sexual development and societal influences impacting on children and parents. Three contact hours.

FAD 1252 Parenting Your Teenager (O) 3 cr.

Instruction in this course concentrates on helping parents of adolescents learn alternatives to traditional, handed-down parenting techniques. Parents will learn sophisticated communication skills and advanced problem solving approaches to help prepare a teen to survive in an ever-changing society. The course includes help with parent-teen interactions; social, emotional and physical issues of adolescents; conflict resolution; and analyzing the societal influence's impact on parenting. Three contact hours.

FFP – Fire Fighting and Protection

FFP 1000 Introduction to Fire Protection (D) 3 cr.

This course is a study of the philosophical and historical backgrounds 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; a review of municipal fire defenses, fire prevention principles, techniques of fire control, codes and ordinances; the problems of the fire administrator, and a survey of professional fire protection career opportunities. Three contact hours.

FFP 1100 Fire Service Organization (D) 3 cr.

This course presents the principles of organization and administration in fire protection service; a study of company

personnel management and training; fire equipment, communications, maintenance, budgeting, records and reports, insurance rating systems, and public relations. Three contact hours.

FFP 1110 Fire Company Supervision and Management (D) 3 cr.

This course, a review of the structure and functions of a fire company as a component of a municipal organization, stresses the duties and responsibilities of the company officer, including planning, training, records and reports, and employee supervision. Three contact hours.

FFP 1203 Fundamentals of Fire Prevention (D) 3 cr.

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

FFP 2240 Fire Investigation (D) 3 cr.

This course presents the principles of fire investigation: methods of determining area of fire origin, fire cause, and fire spread; location and preservation of evidence; interrogation of witnesses; arson detection, arson laws; case preparation and court procedures; and reports and records. Three contact hours.

FFP 2310 Fire Codes and Building Construction (D) 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.

FFP 2400 Fire Fighting Tactics and Strategy (D) 3 cr.

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

FFP 2500 Flammable Hazardous Materials (D) 3 cr.

This course presents the basic fundamentals of chemistry used in fire science; types of chemicals and processes; and laws at federal, state, and local levels pertaining to use, storage, and transportation of chemicals. Also, topics covered include hazards of radioactives, precautions to observe in fighting fires involving hazardous materials, and laboratory demonstrations of incompatibles. Three contact hours.

FFP 2524 Explosive and Toxic Hazardous Materials (D) 3 cr.

This course, divided into two sections, deals with why materials explode, why they are unstable, and how they react with water, air, and each other. The second section explores toxicity. Three contact hours.

FFP 2600 Fire Fighting Equipment and Apparatus (D) 3 cr.

This course covers the principles of pumping, construction and operation of pumps and pumping accessories, driving and pumping practices, principles and operation of aerial ladders, hydraulic systems, water supply, trouble shooting, and related subjects. The course also includes the principles of the care, maintenance, and operation of fire department vehicles. Subjects covered include theory of internal combustion engines, power development and transmission, torque and horsepower, electrical and brake systems, carburetion, engine tune-up and trouble shooting, character-

ties of fuels and lubricants, and other related principles of automotive vehicles. Three contact hours.

FFP 2660 Rescue Practices (D) 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, chemicals and diseases that affect breathing, law on first aid, and the use of breathing apparatus. Three contact hours.

FIL – Film

FIL 1505 The Movies as Art (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This general survey course examines the development of the motion picture as a universal art form: its historical and international background; theme and subject selection and script development; technological equipment and innovations; elements of visual composition, sound and music; acting and directing; and film criticism and analysis. This course examines the motion picture as a universal expression of varied cultures and creative expressions. This course includes reading and writing competencies. Four contact hours (lecture/viewing).

FIN – Finance

FIN 2000 Principles of Finance (D) 3 cr.

Prerequisites: QMB 1001, ACG 1003 or ACG 2001, or consent of professor. 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; inflation, deflation, and the money supply; history and nature of money, and financial management. Three contact hours.

FIN 2100 Personal Finance (D) 3 cr.

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

FIN 2230 Money and Banking (D) 3 cr.

Prerequisite: BAN 1110. This course 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 to the particular job. With historical treatment kept to a minimum, this course emphasizes such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry and how these problems affect yield curves and the structuring of portfolios. Three contact hours.

FIN 2360 Foundation and Structure of Credit Unions (O) 3 cr.

This course contains the historical background and philosophy of the credit union movement and clearly portrays the structure and function of the credit union. The course emphasizes the need for ethical patterns and behavior and examines the relationships in the credit union and professionalism. Three contact hours.

FOS – Food Science

FOS 1201 Sanitation and Safety (D) 3 cr.

The student will explore the scientific rationale for sanitation and safety practices which are enforced for group protection in institutions and food service facilities. The student will identify causative agents of food-borne illnesses and demonstrate preventive techniques by adhering

to sanitation standards. The course emphasizes methods of accident and fire prevention. Three contact hours.

FRE – French Language

FRE 1100 Beginning French I (P) 3 cr.

This course consists of pronunciation, grammar, conversation, exercises, reading and composition through visual and auditory aids. Four contact hours: three lecture hours; one unsupervised laboratory hour.

FRE 1101 Beginning French II (P) 3 cr.

Prerequisite: FRE 1100. This course is a continuation of FRE 1100. Four contact hours: three lecture hours; one unsupervised laboratory hour.

FRE 2200 Intermediate French I (P) 3 cr.

Prerequisite: FRE 1101 or equivalent study. This course includes reading from modern and classic French authors, grammar review, and conversation. Four contact hours: three lecture hours; one unsupervised laboratory hour.

FRE 2201 Intermediate French II (P) 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 (D) 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 (D) 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 (D) 3 cr.

The student will acquire the fundamentals involved in purchasing food and beverages in quantity. The course emphasizes standardizing, grading, estimating, selecting, 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 (D) 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 1221C Quantity Food Production (D) 3 cr.

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

FSS 1246C Baking (D) 3 cr.

The student will acquire knowledge of the composition and properties of baking ingredients. The student will utilize

the proper equipment and tools and standardized recipes to prepare yeast breads, rolls, pastries, and cakes in the food service laboratory. The instructor will evaluate the products prepared by established food service standards. Five contact hours: one lecture hour; four laboratory hours.

FSS 1248C Garde-Manger (D) 3 cr.

The student will acquire knowledge and demonstrate skills in the application of special garde-manger techniques used in ice and tallow sculpturing. The class will observe dexterity in the proper use of tools to produce dinner and ice sculptured showpieces. Four contact hours: two lecture hours; two laboratory hours.

FSS 1250 Food and Beverage Service (D) 3 cr.

The student will acquire knowledge of various types of service appropriate to coffee shops, dining rooms, luncheons, banquets and buffets. The course will demonstrate the relationship of menu, equipment, supplies, merchandising and personnel to create good patron acceptance. Three contact hours.

FSS 1251 Restaurant Operation (O) 3 cr.

This course includes the basic principles of analysis of food management problems, job analysis methods, selection, control, and supervision of personnel, facilities, layout, labor and food cost control, purchasing, legal problems, furniture and decor for clubs, restaurants and related institutions. Three contact hours.

FSS 1304 Management Clinical Practice I (O) 3 cr.

The course consists of a supervised field experience in which the student will work on the job nine hours per week and apply course theories and skills basic to quality control, including principles of food preparation, personnel management, sanitation and safety. Ten contact hours: one lecture hour; nine field hours.

FSS 1306 Management Clinical Practice II (O) 3 cr.

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

FSS 1410 Food Service Equipment/Facility Planning (D) 3 cr.

The student will evaluate the various types of food service equipment relative to cost, structure, function, and maintenance. The student will design a layout for a food service operation to include equipment specifications, energy conservation measures, diversity of function, cost control and consideration toward future adaptability. Three contact hours.

FSS 2300 Supervision and Personnel Management (D) 3 cr.

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

FSS 2301 Food Service Delivery Systems (O) 3 cr.

The student will explore food service departments in the varied types of health care facilities and health care delivery systems operating in the United States and study their purposes, organization, need in society, general functions and staffing. The course will analyze and discuss facilities such as hospitals, nursing and rehabilitation centers,

health maintenance organizations, private and public outpatient clinics and neighborhood health care centers. Three contact hours.

FSS 2302 Management Clinical Practice III (O) 4 cr.

Prerequisite: FSS 1306. This course, a continuation of FSS 1306, 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: one lecture hour; twelve field hours.

FSS 2501 Food and Beverage Control (D) 3 cr.

This course presents the basic principles and procedures of effective food and beverage cost control, including food and beverage purchasing, receiving, and issuing; calculation of standards, production, and planning special control. Three contact hours.

FSS 2945 Food Service Internship (D) 9 cr.

The student will work on-the-job as an intern under the supervision of qualified personnel in food service establishments within the community. The student will apply course theories and skills in this work experience. The internship 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.

GEA – Geography: Regional Areas

GEA 1000 World Geography (P) 3 cr.

This introductory course deals with humanity's relationship to the natural environment in the various climatic, regional, and economic areas of the world, and the interrelationships and problems of conservation of natural resources. Three contact hours.

GEB – General Business

GEB 1011 Introduction to Business (D) 3 cr.

This course, an introduction to business organization and procedure, enables the student to pursue more intelligently advanced business courses and to choose a business career. Three contact hours.

GEO – Geography: Systematic

GEO 2370 Conservation of Resources (P) 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 1100 Beginning German I (P) 3 cr.

This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition with visual and auditory aids. Four contact hours: three lecture hours; one unsupervised laboratory hour.

GER 1101 Beginning German II (P) 3 cr.

Prerequisite: GER 1100 or equivalent. This course is a continuation of GER 1100. Four contact hours: three lecture hours; one unsupervised laboratory hour.

GLY – Geology**GLY 1000 Earth and Space Science (P) 3 cr.**

Prerequisite: None. This course acquaints the student with the development of science, with the integrating principles and theories in the earth sciences, with the practice of the scientific method, and with a useful knowledge of selected areas of geology, astronomy, and meteorology. Presentation involves lectures, demonstrations, and films. The course is for general education and is not designed essentially as an introductory or preparatory course for any of the specific sciences. Three contact hours.

GLY 1010 Physical Geology (P) 3 cr.

The student will benefit by taking high school algebra or MAT 0024 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, modifying agents, and processes, characteristic rocks and minerals and a brief study of the surrounding atmosphere and the earth as a planet. Three contact hours.

GLY 1100 Historical Geology (P) 3 cr.

Prerequisite: GLY 1010. This course presents the geologic history of the earth dealing with the major physical events as recorded in rock formations and with the constantly evolving changes in animals and plants through time. Three contact hours.

GRA – Graphic Arts**GRA 1500 Theory of Printing Processes (O) 5 cr.**

Corequisite: GRA 1502L. This lecture course, designed to give an introduction to major processes of the printing industry, includes all methods of typesetting, photo typesetting, hand and other machine methods of typesetting, mechanical art preparation, printer's math and proofreading. Five contact hours.

GRA 1502L Printing Processes – Laboratory (O) 4 cr.

Corequisite: 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, emphasizes cold type and phototypesetting and mechanical art preparation. Also introduced are typesetting and form makeup (hand and machine), lockup and letterpress operation. Eight contact hours (theory/laboratory).

GRA 1503 Theory of Lithographic Processes (O) 5 cr.

Corequisite: GRA 1504L. This lecture course, designed to give an introduction to three major processes of the lithographic industry, includes process camera operation, negative stripping and platemaking, and offset press operation. Five contact hours.

GRA 1504L Lithographic Processes Laboratory (O) 4 cr.

Corequisite: GRA 1503. 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 platemaking, offset press operation, and related bindery functions. Eight contact hours (theory/laboratory).

GRA 1540 Layout and Design (O) 3 cr.

This course teaches the technique of preparing layouts to be used for customer approval and the preparation of camera-ready mechanicals of work ready to be printed. Three contact hours.

GRA 1706 Graphic Arts Estimating (O) 3 cr.

This course uses the industry-accepted Franklin Printing Catalog to develop the basic technique of estimating the cost

of printed matter and its production methods, from layout to finished product. Three contact hours.

GRA 2532L Hand and Machine Composition and Form Makeup (O) 3 cr.

This course teaches the basic technique of setting type by hand and by Ludlow 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 (O) 5 cr.

Prerequisite: GRA 2532L. This advanced laboratory course provides for skill development in the technique of setting type by hand and by Ludlow machine, form makeup (utilizing metal cutting devices), and pulling reproduction proofs for offset printing. This 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 (O) 3 cr.

Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course teaches the basic techniques of setting type by strike-on and photographic typesetting equipment, and also the preparation of mechanical art forms. The course also includes pen ruling and machine forms. Six contact hours (theory/laboratory).

GRA 2538L Advanced Cold Type Typesetting and Pasteup (O) 5 cr.

Prerequisite: GRA 2537L. This advanced course provides for skill development in the techniques of setting type by strike-on and photographic typesetting equipment, and also the preparation of mechanical art forms. The course emphasizes the application of basic techniques toward greater job complexity, increased quality and increased productivity. Ten contact hours (theory/laboratory).

GRA 2571L Camera Operation and Film Processing (O) 3 cr.

Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course presents 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 arts films and papers. Six contact hours (theory/laboratory).

GRA 2573L Advanced Camera Operation and Film Processing (O) 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 arts 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 Platemaking (O) 3 cr.

Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course teaches the basic techniques for stripping up offset negatives and positives for proper press position, separating for color, and for exposing and developing offset press plates. Six contact hours (theory/laboratory).

GRA 2602L Advanced Negative Stripping and Offset Platemaking (O) 5 cr.

Prerequisite: GRA 2601L. This advanced course provides for skill development in the technique of stripping up offset negatives and positives for proper press position, separating for color, and exposing and developing offset press plates.

This course emphasizes the application of basic techniques toward greater job complexity, increased quality, and increased productivity. Ten contact hours.

GRA 2630L Letterpress Press Operation and Lockup (O) 3 cr.

This laboratory course teaches the basic technique of setting up and operating both hand-fed and automatic letterpress presses. Six contact hours (theory/laboratory).

GRA 2632L Advanced Letterpress Operation and Lockup (O) 5 cr.

This advanced laboratory course provides for skill development in the technique of setting up and operating both hand-fed and automatic letterpress presses. 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 (O) 3 cr.

Prerequisite: GRA 1504L. Corequisite: GRA 1540. This course teaches the basic technique of setting up, operating, and maintaining duplicators and off-set presses in the 10x15, 11x17, and 14x20 inch ranges. Six contact hours (theory/laboratory).

GRA 2638L Advanced Offset Press Operation (O) 5 cr.

Prerequisite: GRA 2635L. This advanced laboratory course provides for skill development in the technique of setting up, operating, and maintaining duplicators and offset presses in the 10x15, 11x17 and 14x20 inch ranges. This course emphasizes the application of basic techniques toward greater job complexity, increased quality, and increased productivity. Ten contact hours (theory/laboratory).

GRA 2945 Practicum (O) 6 cr.

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

HFT – Hotel and Restaurant

HFT 1000 Introduction to Hospitality Management (O) 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 (O) 3 cr.

This course acquaints the student with the operation of a hotel or motel to include front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing and storage. Three contact hours.

HFT 1270 Apartment Management (O) 3 cr.

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

HFT 1410 Front Office Management-Hotel/Motel (O) 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 acquaints 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.

HFT 2221 Customer-Personnel Relations (O) 3 cr.

This course explores the various successful techniques involved in establishing effective communications and functional relationships with the customer and with personnel at all levels. Three contact hours.

HFT 2700 Tourism (O) 3 cr.

Prerequisite: HFT 1000. This course consists of a study of tourism, which is travel, and includes the entire hospitality field – hotels, motels, resorts, restaurants, camping and all the supportive services for travelers and vacationers. This course develops an understanding of the travel modes and enables the student to become knowledgeable and responsive to the developments and the economic approaches that are necessary for a travel manager. Three contact hours.

HFT 2941 Internship (O) 3 cr.

This course consists of on-the-job work experience supplied by the hotel-motel restaurant industries. Job placement will be dependent upon the student's preference and availability of participating hospitality institutions. The course consists of 15 hours per week of on-the-job instruction accompanied by one seminar each week. Students employed in the industry will receive the on-going rate of part-time help. Fifteen contact hours: one lecture hour; fourteen field hours.

HFT 2942 Internship (O) 3 cr.

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

HHD – Housing and Home Design

HHD 1001C Principles of Interior Design (O) 3 cr.

The course content includes an in-depth study of the elements and principles of design. The course demonstrates a proficiency in the knowledge and application of the elements – color, line, texture, ornament, 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: two lecture hours; two laboratory hours.

HHD 1122 Housing Alternatives (O) 3 cr.

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

HHD 1232C Functions and Psychology of Space (O) 3 cr.

Prerequisite: HHD 1001C. This course analyzes social, private and work spaces for psychological use of space, efficiency of traffic patterns, and effectiveness of design. The student will read, evaluate, modify, and execute a floor plan based upon the requirements for the space zones. The course also will explore the multiples of background modifications for visual impact on the total design of an interior space. Four contact hours: two lecture hours; two laboratory hours.

HHD 1360C Construction of Window Treatments and Draperies (O) 3 cr.

Instruction in this course includes competency development relating to identification, use and care of tools and equipment, and construction of window treatments and valances. This course emphasizes construction and installation techniques and stresses instruction and practice on all commercial drapery equipment. Six contact hours; two lecture hours; four laboratory hours.

HHD 1362 Window Treatment Design (O) 3 cr.

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

HHD 1365C Home Accessories Construction (O) 3 cr.

This course covers designing and executing home accessory projects and restoration of discarded accessories and use of alternative materials. Extensive course work focuses on preserving and restoring collectibles for the home, as well as construction of new items worthy of being called collectibles. Six contact hours; two lecture hours, four laboratory hours.

HHD 1450C Fundamentals of Restoration and Preservation (O) 3 cr.

This course, designed to make the individual better able to preserve existing features inside and outside of the house, explores in supervised experiences, choices in what to restore vs. what to preserve. The course includes hands on practice in developing restoration and preservation skills. Six contact hours; two lecture hours, four laboratory hours.

HHD 1452 Home Maintenance and Repair (O) 3 cr.

The course content and instruction, directed toward making the home owner self-sufficient in handling minor care, repair, and maintenance problems, include problems with electric power, plumbing emergencies, care and repair of floors and floor coverings, interior painting, wallpapering, furniture care and repairs, and miscellaneous repairs. This course will also discuss tools needed, work safety, and combatting pests and fungi. The course provides opportunities for laboratory experiences in practical applications. Three contact hours.

HHD 1500C Decorating With Slipcovers (O) 3 cr.

The course work includes instruction for homemakers in fabric selection, techniques of handling various fabrics, making cord, fitting cord to corners, and inserting zippers. This course also includes the care of slipcovers. Six contact hours; two lecture hours; four laboratory hours.

HHD 1510C Introduction To Upholstery (O) 3 cr.

This course includes selection of tools, materials, and equipment; use of power equipment, dismantling of furniture; basic construction processes; fitting the muslin cover; planning and preparing the fabric platform cover; planning and preparing panels, outsides and trimmings, pleated skirts, dust ruffles; and making cushions. The course places emphasis upon experiencing all phases of upholstery construction useful in a variety of home furnishings projects. Six contact hours; two lecture hours; four laboratory hours.

HHD 1511C Advanced Upholstery (O) 3 cr.

This course, designed to enhance skills and to develop more productive work habits, includes channeling, tufting, making skirts, repairing, and spot touch-up of furniture, color and color schemes, and headboards. The course places a spe-

cial emphasis upon authentic restoration of antiques and classic furniture styles. Six contact hours; two lecture hours; four laboratory hours.

HHD 2234C Residential and Commercial Design (O) 3 cr.

This laboratory course, designed to provide skill development in planning residential and commercial interiors from blueprints to the final assembly of all furnishings, emphasizes commercial furnishings, fabrics, building codes and fire regulations. The course also synthesizes working drawings, specifications, and competency in budgeting. Four contact hours; two lecture hours; two laboratory hours.

HHD 2240 Why Preservation? (O) 3 cr.

This course studies the process of restoring a home; planning interior and exterior renovations, estimating costs, choosing contractors, doing it yourself, getting involved in local preservation groups. The course places a special emphasis on the development of the community, historically, socially and architecturally as well as the trends in zoning, crime, transportation and commercialization. Three contact hours.

HHD 2323C Perspective Renderings - Housing (O) 3 cr.

This course places emphasis on planning and executing renderings, and the techniques of one and two point linear perspective as they apply to interior 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 (O) 3 cr.

Professionalism of graphic illustration is the focus of this course. The student will explore various media for graphic interior design presentations such as pencil, pen and ink, and watercolor renderings. Student projects will also provide experience in assembling and presenting design boards. Four contact hours; two lecture hours; two laboratory hours.

HHD 2600 Architectural Style: Exteriors and Interiors (O) 3 cr.

This course includes a comparative analysis of home architectural interiors and exteriors based on elements of home design recognizable in home construction. The course also includes a study of antique, reproduction and modern exteriors with emphasis on consequences of prior and future preservation of the structures studied. Three contact hours.

HHD 2805 Professional Practices In Home Economics (O) 3 cr.

This course includes a study of small business organizations and practices in interior design, home furnishings, and clothing related industries. This course places special emphasis upon practical solutions found in these related trades. The course will explore extensively the process of selling fabric, etc., labor estimates, sub-contracting services, specialization of labor within the business, and customer relations. Three contact hours.

HHD 2810 Marketing Techniques For The Interior Designer (O) 3 cr.

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

HHD 2943 Practicum in Economic Revitalization of Homes and Business Dwellings (O) 6 cr.

This course requires a minimum of 20 hours per week of practical work experience approved by the student's advisor. The student will acquire on-the-job experience in housing

preservation, restoration or construction under the supervision of qualified individuals within the business community. Twenty contact hours: one lecture hour; nineteen field hours.

HIS – General History

HIS 1907 Honors Survey of History (P) 3 cr.

Prerequisites: Outstanding performance in AMH 2010, 2020; EUH 1000, 1001; recommendation by the Department. This independent survey in one or more selected fields of history incorporates extensive research and in-depth readings as well as developing interest and skill in the preparation of historical analysis and presentation in anticipation of further studies at the senior college level in history or related fields. Three contact hours.

HME – Home Management and Equipment

HME 1200 Home Management (D) 3 cr.

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

HME 1232 Economic Home Energy Sources (O) 3 cr.

This course is an overview of the conventional and nonconventional energy sources in the home, with opportunity provided for the homeowner to gain an understanding of billing, metering, and ways of controlling personal energy consumption. A review of building structures and the potential energy use, improvements needed to the building envelope to make it energy efficient, and cost of energy for the structure is also a part of the instruction provided. Three contact hours.

HME 1312 Home Equipment - Selection, Use, And Care (O) 3 cr.

Instruction in this course includes all phases of equipment selection, use, and care. The student will have the opportunity to consider factors influenced by energy costs, space requirements, lifestyle, number of people using the dwelling, and budget limitations. The course places special emphasis on fuel choices and equipment types to better utilize existing systems in an older home. Three contact hours.

HSC – Health Science

HSC 1100 Personal and Community Health (P) 3 cr.

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

HSC 2400 Standard First Aid and Personal Safety (P) 2 cr.

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

HSC 2602 Death Attitudes: Exploration and Change (D) 3 cr.

This course explores the psychological, philosophical, and sociological aspects of death and dying, especially in rela-

tionship to the negative view of death in our American Society. This course will encourage participants to analyze life's true meaning by coming to terms with death as a part of human development. The field experience in this course will require contact with the terminally ill and/or their family. Four contact hours: three lecture hours; one field hour.

HUM – Humanities

HUMA 1740 Overseas Humanities (P) 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 tour. The course will include field experiences, lectures, discussions, and other experiences in the humanities area. The student will visit great European cities where special attention will be given to forces contributing to the culture of these nations. 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 (P) 3 cr.

The second half of a humanities course offers students a study/travel program centered on the cities and countries of the tour. The course will include field experiences, lectures, discussions, and other experiences in the humanities area. The student will visit great European cities where special attention will be given to forces contributing to the culture of these nations. 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 2211 Humanities: The Foundations (P) 3 cr.

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

HUM 2231 Humanities: Renaissance to the Romantic Period (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of life and creative expressions in Europe from the Medieval/Renaissance to the modern world as surveyed through the interrelationships of the visual arts, music, literature, philosophy, and social history. The course provides transition between the study of the early and the modern cultures focusing on the European Renaissance, Enlightenment, Napoleonic Era through the Early Romantics as they relate to other world developments. The course includes reading and writing competencies. Three contact hours.

HUM 2250 Humanities: The Modern World (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of the study of life and creative expressions of Western culture in its relationship with other world cultures as surveyed through social history, the impact of science and technology on human values and the history of ideas manifested in the arts and letters from the nineteenth century Romantic Movement to the present. The course includes reading and writing competencies. Three contact hours.

HUM 2410 Humanities of Asia (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course surveys Asian cultures and their creative expressions through the media of visual arts, music, literature, and philosophic thought. This course includes reading and writing competencies. Three contact hours.

HUM 2450 Humanities in the Americas (P) 3 cr.

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

HUM 2472 Intercultural Explorations (P) 3 cr.

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

HUM 2478 Northern European Humanities (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course is a study of life and creative expressions from their origins in early cultures in Northwestern Europe through the Baroque period as surveyed through the visual arts, music, literature, philosophy, and social history. The course examines the interaction of cultural experiences that created the heritage passed on to later people. This course includes reading and writing competencies. Three contact hours.

HUN – Human Nutrition**HUN 1201 Principles of Nutrition (D) 3 cr.**

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

HUS – Human Services**HUS 2825 Practicum in Human Services (D) 3 cr.**

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

IDS – Interdisciplinary Studies**IDS 1935 Interdisciplinary Studies Seminar (P) 1 cr.**

The IDS seminar provides a structured opportunity for students and professors to participate in special programs, to

work together in the development of IDS projects, and to interact in an interdisciplinary environment. Students may repeat the course. Two contact hours.

IEA – Industrial Education Applied**IEA 1305 Industrial Survival Procedures (O) 3 cr.**

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

IND – Interior Design**IND 1010 Housing and Interior Design (O) 3 cr.**

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

IND 1100 History of Interiors I (O) 3 cr.

The student will acquire the ability to identify furniture styles, architectural details, and ornamental motifs from the time of our primitive beginnings through the Renaissance period. Three contact hours.

IND 1130 History of Interiors II (O) 3 cr.

Prerequisite: IND 1100. This course, a continuation of IND 1100, requires the student to identify furniture styles, architectural details, and ornamental motifs from the Renaissance period through the twentieth century. Three contact hours.

IND 1420 Materials and Sources (O) 3 cr.

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

IND 2940 Interior Design Internship and Seminar (O) 6 cr.

The student will work on the job as an intern under the supervision of qualified personnel in interior design firms within the community. Course theories and skills will be applied in this work experience. The internship training program requires 15 weeks for a total of 300 hours. A two-hour classroom seminar will be held bimonthly on campus. Enrollment in this course requires permission of the program director. Twenty-one contact hours: one lecture hour; twenty field hours.

INR – International Relations**INR 2002 International Relations (P) 3 cr.**

This course is a study of the nature of the international political system with emphasis on the concepts of national interest and power with respect to the relations of nation-states. This course examines the function and role of international organizations. Three contact hours.

ISC – Interdisciplinary Science - Natural**ISC 1000 Unified Science (P) 3 cr.**

This course, designed to allow students to study process of science, concepts of science, natural phenomena, and/or cur-

rent problem areas, consists of selected topics in terms of their relationship and significance to the various science disciplines. This course is not designed essentially as an introductory or preparatory course for any specific physical science. Three contact hours.

JOU – Journalism

JOU 1001 Introduction to Journalism (P) 3 cr.

An introduction to Journalism and Mass Communications, this course will include the history and development of journalism with emphasis on newspaper, radio, television and magazines. The course also includes effective personal communications as the basis of effective mass communications. Three contact hours.

LAH – Latin American History

LAH 2000 History of the Americas (P) 3 cr.

This course consists of a study of the nations of the Western Hemisphere, including Canada, from colonial times to the present with emphasis on Latin America. Three contact hours.

LEI – Leisure

LEI 2330C Camp Counseling (P) 3 cr.

The purpose of this course is to develop leadership qualities for working with people in a recreation situation and also to provide knowledge and skill necessary for living in, enjoying, and preserving the out-of-doors. The course includes two overnight camping trips. Upon successful completion of the course, the student receives the American Camping Association campercraft certification. Three contact hours, and two overnight camping trips.

LIS – Library Sciences

LIS 2001 Use of Books and Libraries (P) 1 cr.

This course includes organization of the FJC Learning Resources: introduction to the library's classification system, how to use the card catalog, periodical indexes and other basic indexes and suggestions for notetaking. The course will emphasize developing an analytical and systematic approach to the use of reference sources. This course will be helpful to all students who wish to make better use of library facilities at FJC, universities and public libraries. Three contact hours (lecture/activity).

LIT – Literature

LIT 2000 Introduction to Literature (P) 3 cr.

Prerequisite: ENC 1102. This course emphasizes reading selections for understanding and appreciation. The course considers the major literary forms and their distinctive characteristics and conventions, principal 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 (P) 3 cr.

Prerequisites: ENC 1101 or satisfactory score on placement test. This course surveys universal themes and ideas in representative masterpieces of the world's literary traditions from ancient times 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 competencies. Three contact hours.

LIT 2370 The Bible as Literature (P) 3 cr.

This course is a study of the development of the Bible in both its natural and its supernatural aspects, its influence on literature and humanity, with emphasis on the Bible's role in the modern world. Three contact hours.

MAC – Mathematics: Calculus and Pre-calculus

MAC 1104 College Algebra (P) 4 cr.

Prerequisite: MAT 1033 with a grade of C or better; or a satisfactory score on placement test. Recommended for students who need more preparation for trigonometry and calculus, this course presents techniques of algebra with an emphasis on exact vocabulary, introduces analysis of real number system, and includes topics on linear and quadratic functions, system of equations and equalities, logarithms, theory of polynomials, and matrices. Four contact hours.

MAC 1114 College Trigonometry (P) 3 cr.

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

MAC 1311 Calculus with Analytic Geometry I (P) 4 cr.

Prerequisite: MAC 1104 or two years of high school algebra and one year of plane geometry. This course, designed for the major in mathematics, science, or engineering; having a good foundation in algebra, is a differential and integral calculus course with analytic geometry. Covered in the course are an introduction to analytic geometry, limits and continuity, differentiation of algebraic expressions, with applications of the derivative, an introduction to integration involving algebraic expressions, and applications of the definite integral. Four contact hours.

MAC 2233 Calculus For Business And Social Science I (P) 3 cr.

Prerequisite: MAC 1104. This course provides an introduction to differential and integral calculus with emphasis placed on applications from business, economics, and the social sciences. Linear programming and topics from linear algebra will also be presented. (Note: This course cannot be used to satisfy upper level degree requirements for students majoring in mathematics or engineering.) Three contact hours.

MAC 2234 Calculus For Business And Social Sciences II (P) 3 cr.

Prerequisites: MAC 2233 or MAC 1311. This course is a continuation of MAC 2233. Additional topics in differential and integral calculus will be presented as well as an introduction to multivariate calculus with applications from business, economics, and social sciences. Three contact hours.

MAC 2312 Calculus with Analytic Geometry II (P) 4 cr.

Prerequisite: MAC 1311. This course is a continuation of the calculus-analytic geometry sequence. This course includes differentiation and integration of transcendental functions, topics in plane analytic geometry, techniques of integration, indeterminate forms and improper integrals. Four contact hours.

MAC 2313 Calculus with Analytic Geometry III (P) 4 cr.

Prerequisite: MAC 2312. This is the third course in the calculus with analytic geometry sequence. Topics included in this course are infinite series, polar coordinates, vectors in

the plane, vectors in space, partial differentiation, multiple integrals, and applications of multiple integrals. Four contact hours.

MAN – Management

MAN 2021 Principles of Management (D) 3 cr.

Suggested prerequisite: GEB 1011. This course consists of a detailed analysis of the management functions of planning, organizing, staffing, directing and controlling as related to business enterprise. The orderly presentation of fundamental knowledge in management provides the student with the framework for further study in the field, or the background for practical application of management principles in business and industry. Three contact hours.

MAN 2050 Transportation Management and Theory (D) 3 cr.

This course, designed for students advancing to the management stage in the transportation field, covers financial management, business law, management's relation to government, marketing management, management theory and philosophy, and broad management perspective. Three contact hours.

MAN 2300 Personnel Management (D) 3 cr.

This course in personnel management is the process utilizing materials and human resources to accomplish designated objectives. It involves the organization, direction, coordination, and evaluation of people to achieve their goals. Some of the functions of personnel management are planning, organizing, staffing, directing, and controlling. Three contact hours.

MAN 2800 Small Business Management (D) 3 cr.

This course, designed for the student who is primarily interested in the ownership and management of the small business enterprise, examines and analyzes the managerial function of planning, organizing, staffing, direction and controlling as applied to the small business. Students also study retailing, wholesaling, manufacturing, and service type business organizations. Three contact hours.

MAP – Mathematics: Applied

MAP 2302 Differential Equations (P) 3 cr.

Prerequisite: MAC 2312. This course consists of a study of the procedure and the theory of various methods of solving ordinary differential equations, including a development of Laplace Transforms and applications. Three contact hours.

MAR – Marketing

MAR 1011 Principles of Marketing (D) 3 cr.

Prerequisite: GEB 1011. This course consists of marketing products and markets and the discussion of basic marketing functions. The course emphasizes those interacting determinates of demand which comprise the marketing environment – the economic, psychological, sociological, and political factors. The course also introduces the legal restraints that make up the forces beyond management control, but are needed in the marketing decision. Three contact hours.

MAR 1101 Salesmanship (D) 3 cr.

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

MAR 1151 Retail Merchandising (O) 3 cr.

This course covers the entire field of retail merchandising: planning and organizing, marketing strategies, and retailing functions. The course reviews the specifics of store plan-

ning and location and covers functions such as merchandising handling, store personnel, credit and service. The course devotes a section to consumer behavior and the various social and psychological factors affecting the consumer buying process. The course also reviews credit, service, and customer complaints as well as accounting and credit in the retail store. Three contact hours.

MAR 1301 Sales Promotion (O) 3 cr.

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

MAR 2131 Principles of Purchasing I (O) 3 cr.

This comprehensive course in modern procurement practices and policies used by practicing purchasing agents, covers column analysis of the fundamental purchasing principles with analytical descriptions of the latest developments and techniques. Three contact hours.

MAR 2132 Principles of Purchasing II (O) 3 cr.

Prerequisite: MAR 2131. This course, a continuation of MAR 2131, emphasizes quality assurance, price analysis, planning and forecasting, buying and capital equipment. Three contact hours.

MAR 2221 Principles of Wholesale Distribution (O) 3 cr.

This course is a general survey of the wholesaling functions for the student contemplating a career in the wholesale distribution industry. The course examines the place of wholesale distribution in relation to producers, retailers, institutional and industrial customers, and individual consumers. The course emphasizes the role of the wholesale distributor in the channels of distribution; the place of land, sea, and air carriers; and career opportunities at the state and national level. Three contact hours.

MAR 2240 Principles of International Trade: Export-Import (D) 3 cr.

This course provides training for entrance into the export-import business. It will cover three major areas: (1) the role of transportation, (2) international markets, and (3) preparation of forms for customs duties, taxes, and related documents. Three contact hours.

MAR 2401 Sales Management (O) 3 cr.

Prerequisite: MAR 1101. The course takes the student through the management of the sales process. It shows the organization of the sales force, its recruitment, selection, training, evaluation and compensation. The course examines the marketing process, marketing information, product management, pricing, brand selection and promotion, and control and management of the marketing mix. Three contact hours.

MAS – Mathematics: Algebraic Structures

MAS 2103 Elementary Linear Algebra (P) 3 cr.

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

MAT – Mathematics: General**MAT 0002 General Mathematics
(College Preparatory Course)**

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

**MAT 0024 Elementary Algebra
(College Preparatory Course)**

Prerequisite: Satisfactory score on placement test. The emphasis of this course is on fundamental concepts and structures with manipulation as a tool for reinforcement. The content includes topics on sets, basic operations with real numbers, basic operations with polynomials, solving linear equations, and factoring polynomials. This course does not apply toward an associate degree and is part of College Preparatory Studies. Three credit hours, three contact hours.

MAT 1033 Intermediate Algebra (P) 3 cr.

Prerequisite: MAT 0024, or a satisfactory score on placement test. Designed for students who need to take either MAC 1104 or MGF 1202, this course includes an introduction to the mathematics of sets, operations with polynomials, rational exponents and radicals, solutions of linear and quadratic equations and their applications, solutions of linear inequalities, introduction to relations and functions, and systems of equation and inequalities. Three contact hours.

MCB – Microbiology**MCB 2013C Microbiology (P) 4 cr.**

Prerequisites: CHM 1020, 1040C, or 1045C. High school chemistry. In addition, the student will benefit by taking APB 1150 or BSC 1011C prior to enrolling in MCB 2013C. This course consists of a study of the protista, viruses, rickettsias, and schizomycetes of medical and economic importance. Laboratory exercises introduce bacteriologic techniques and aseptic procedures using nonpathogenic organisms. Six contact hours; three studio hours; three clinical hours.

MET – Meteorology**MET 1001 Meteorology (P) 3 cr.**

This course, designed to meet the general education requirements in the Natural Science area, includes the phenomena of weather and climate and the use of atmospheric data to predict the weather. Three contact hours.

**MGF – Mathematics:
General and Finite****MGF 1202 College Mathematics (P) 3 cr.**

Prerequisite: MAT 1033 or a satisfactory score on placement test. This is a survey course which includes topics in mathematical logic, set symbolism and terminology, probability and statistics, computer literacy, geometry, and measurements. Three contact hours.

MIS – Military Science**MIS 1000 Introduction to the Army
as a Profession (P) 1 cr.**

This course introduces students to military science and the organizational approach to leadership. Military topics will

include first aid, communication, and introductory map reading. The leadership portion will include the leader's responsibilities, the problem-solving process, basic traits of a leader and counseling techniques. The first aid portion will cover the four lifesaving steps, mouth-to-mouth resuscitation, treatment of an open and closed fracture, stopping arterial bleeding, and treatment for shock. Introductory map reading will include the use of a map, the grid system, and identification of major terrain features. Two contact hours (drill/training).

**MIS 1020 Organization of the Army
and ROTC (P) 1 cr.**

This introductory course outlines the organization and mission of the Army, Army Reserve, National Guard and Reserve Officer Training Corps. This course places special emphasis on the different branches of the Army, the Officer Personnel Management System and the benefits of a commission in the active Army, Army Reserve or National Guard. Discussions include the role of the Army Officer, the non-commissioned officer, and the relationship between these two positions. The course also examines the customs and traditions of the service with courtesy. Two contact hours (drill/training).

**MIS 2601 Map Reading and Land
Navigation (P) 1 cr.**

Prerequisite: MIS 1000. This course is an in-depth study of map reading, which includes use of the grid system, identification of terrain features, elevation and relief, use of the grid-magnetic angle, measuring distance both on the ground and map sheet, use of a back azimuth, polar coordinates, intersection, resection and modified resection. Students also will receive practical work with the lensatic compass, including techniques for both day and night use. Two contact hours (drill/training).

**MIS 2610 Military Training
Management (P) 1 cr.**

This course, designed to develop an understanding of the fundamental concepts involved with methods of instruction, training management, and curriculum development in the military, covers basic concepts in the use of a lecture, conducting a conference and presenting a demonstration. Students will prepare for class case studies from US military history and demonstrations in basic first aid. The course requires that students will become familiar with and prepare a lesson plan for all presentations. Two contact hours (drill/training).

**MLS – Medical Laboratory
Science****MLS 1010C Hematology (D) 6 cr.**

Given instruction in the theories and techniques of hematology, the student will develop accuracy and precision in hematologic technique. The learner will identify and count the formed elements of the blood, assay blood for coagulation factors, state reference values for hematologic techniques, classify and categorize blood diseases, and recognize and recall the application of hematologic procedures to clinical diagnoses. Eight contact hours (lecture/laboratory); four lecture hours; four laboratory hours.

**MLS 1022C Introduction to
Health Technology (D) 3 cr.**

The course is designed to enable the student to master basic mathematical concepts, medical laboratory ethics, and basic medical laboratory techniques. Given instruction in integrated health sciences and their application to clinical laboratory science, the student will practice the manipulative skills of medical laboratory technology. Four contact hours (lecture/laboratory).

MLS 1400C Medical Microbiology (D) 6 cr.

Given instruction in the theories, taxonomy and techniques of medical parasitology, mycology, bacteriology and virol-

ogy, the learner will perform step-by-step microbiological techniques precisely and accurately. The student will isolate and identify the organisms from clinical specimens, will classify the organisms associated with disease in man, perform sensitivity tests and correlate this information for its application to clinical diagnoses. Eight contact hours (lecture/laboratory).

MLS 2530C Serology and Blood Banking (D) 6 cr.

Prerequisite: MLS 1010C. Presented basic principles, theories and related serologic methods, the student will perform techniques precisely and accurately, will state the principle and serologic reference values of each and relate test results to clinical diagnoses. Presented the concepts of immunohematology, the student will practice the technical methods and procedures of blood banking and recognize their application to patient care and blood transfusion. Eight contact hours (lecture/laboratory).

MLS 2600C Principles of Clinical Instrumentation (D) 5 cr.

Corequisite: MLS 2802. Given instruction in the principles of analytic methodology and the principles of clinical instrumentation, the learner will apply this information to the procedures of medical laboratory technology in the clinical phase of the student's education. Five contact hours.

MLS 2610C Clinical Chemistry (D) 6 cr.

Presented the basic concepts and techniques of clinical chemistry, the student will develop the technical competencies required to analyze body fluids accurately and precisely. The learner will relate the results of chemical measurements to the assessment of the body's metabolic state. Eight contact hours (lecture/laboratory).

MLS 2802 Clinical Practicum I (D) 12 cr.

Corequisite: MLS 2600C. Having been assigned to a clinical laboratory for directed experience, 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.

MLS 2803 Clinical Diagnosis (D) 5 cr.

Prerequisites: MLS 2600C and MLS 2802. Corequisite: MLS 2804. Presented the clinical aspects of disease and the reference values of the constituents of body fluids, the learner will recognize abnormal values as these relate to disease and will judge the reliability of test results by applying quality control techniques. Five contact hours.

MLS 2804 Clinical Practicum II (D) 12 cr.

Prerequisites: MLS 2802, MLS 2600C. Continuing in a directed rotation in a clinical laboratory, the learner will develop accuracy and precision in performing medical laboratory techniques. The program director coordinates, supervises and evaluates the student's clinical experiences. Thirty-five contact hours.

MMC – Mass Media Communications

MMC 2100 Writing for Mass Communications (P) 3 cr.

Prerequisite: ENC 1101. This communications course provides fundamental instruction and practice in developing basic written and oral communications skills with emphasis on straight news reporting, interpretive news reporting, editorial writing, feature writing and developing copy for radio and television. Three contact hours.

MTB – Mathematics: Technical and Business

MTB 1321 Technical Algebra (D) 3 cr.

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

MTB 1322 Technical Trigonometry (D) 3 cr.

Prerequisite: MAC 1104 or MTB 1321. A continuation of MTB 1321, this course covers the laws and principles of trigonometry, vector analysis, complex numbers and geometric consideration of trigonometry functions, emphasizes practical work in solution of engineering problems. Three contact hours.

MTB 2323 Technical Calculus (D) 3 cr.

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

MTR – Metal Trades

MTR 1002 Production Blueprint Reading (O) 3 cr.

This course, designed to teach blueprint reading in a competency based program of 37 prints, includes assembly drawings of precise machine parts which require a number of machining operations. They provide practice in blueprint reading and illustrate the various elements of blueprints. The course places special emphasis on safety. Three contact hours.

MTR 1004 Machine Bench Work (O) 4 cr.

This course, designed to teach the manipulation of materials, tools, drawing, and equipment, includes special emphasis on shop safety procedures on the methods to use materials, tools, and equipment. Eight laboratory hours.

MTR 1100 Welding For Related Trades (O) 4 cr.

This course, for students not enrolled in a welding program, provides the student with a basic introduction to those welding skills used in related trades and a practical understanding of welding safety, arc welding fundamentals, oxyacetylene welding fundamentals, oxyacetylene cutting skills, brazing, and silver soldering. The course stresses in-class practice to develop the skills necessary to produce quality welds in the flat position on mild carbon steel. Eight laboratory hours.

MTR 1120 Basic Shielded Metal-Arc Welding (O) 4 cr.

This course provides the student with a practical understanding of arc welding fundamentals, welding safety, arc welding power sources, arc welding electrode classifications and selection. The course places special emphasis, through instructor demonstrations as well as student in-class practice, on developing the manual arc welding and oxyacetylene cutting skills necessary to produce high quality welds in all welding positions on mild carbon steel from 16 gauge to 1/4" plate. Eight laboratory hours.

MTR 1121 Advanced Shielded Metal-Arc Welding (O) 4 cr.

Prerequisite: MTR 1120 or demonstrated ability to satisfactorily complete the terminal objectives of MTR 1120. This course provides the student with a thorough technical understanding of arc welding fundamentals, safety procedure and operation qualification, destructive and non-destructive testing, as well as metals identification. This

course includes welding related information on air-arc cutting and gauging as well as procedures for welding cast iron and surfacing of steel. The course places special emphasis, through instructor demonstrations as well as student in-class practice, on developing the manual skill necessary to make high quality shielded metal arc welds in all positions on low carbon steel, 3/8" plate, multiple pass, butt welds and 1" plate lap joints. Joint designs and welding techniques used are those that will provide a foundation for pipe shielded arc welding training. Eight laboratory hours.

MTR 1122 Basic Gas Metal-Arc Welding (O) 4 cr.

Prerequisite: MTR 1120 or demonstrated ability to satisfactorily complete the terminal objectives of MTR 1120. This course provides the student with a practical understanding of welding safety, gas metal-arc welding fundamentals, gas metal-arc equipment adjustments, metal transfer and shielding gases. The course places special emphasis, through instructor demonstrations as well as student in-class practice, on developing the manual skills necessary to produce high quality gas metal-arc welds in all positions on mild steel from 3/16" plate to 3/8" plate single pass and multiple pass, using short circuit transfer. Eight laboratory hours.

MTR 1171 Introduction to Non-Destructive Testing for Welders (O) 3 cr.

This is a course designed to provide the Welding Technology students with a basic understanding of the principles and applications of the visual, magnetic particle, liquid penetrant and radiographic methods used in the non-destructive testing of welds. The course gives special emphasis to safety precautions and hands-on use of non-destructive testing equipment. Three contact hours.

MTR 1301 Introduction to Sheet Metal Practices (O) 3 cr.

A course, designed to teach the shop rules and safety procedures to be followed in an industrial sheet metal shop, emphasizes identification, maintenance, and basic use of sheet metal hand tools and equipment. Three contact hours.

MTR 1311 Basic Pattern Development and Fabrication (O) 4 cr.

Prerequisite: MTR 1301. This course is designed to teach the correct procedure for pattern development and transfer of patterns to metals for fabrication. The course includes proper development of common seams. Eight contact hours (theory/laboratory).

MTR 1313 Intermediate Pattern Development and Fabrication I (O) 4 cr.

Prerequisite: MTR 1311. This course teaches parallel line development used in the layout of round pipe. Eight contact hours (theory/laboratory).

MTR 1314 Intermediate Pattern Development and Fabrication II (O) 4 cr.

Prerequisite: MTR 1313. This course, a continuation of MTR 1313, is an introduction to the triangulation method of pattern development. It teaches the terminology and theory of triangulation and how dimensions of offsets are determined. Eight contact hours (theory/laboratory).

MTR 1472 Machine Lathe Work (O) 4 cr.

This machinist course, designed to teach theory-machining concepts and calculating setups and operational processing in the lathe trade (English and Metric), covers safety, center drilling and their uses, alignment of lathe centers, mounting work between centers, facing, turning an accurate diameter, turning a shoulder, filing and polishing, burling, taper turning, thread cutting (internal and external), resetting a threading tool, mounting and removing a chuck, the three-jaw chuck, drilling and reaming, cutting off and

grooving, setting work in a four-jaw chuck, and grinding work in a lathe. The course places special emphasis on shop safety procedures. Eight laboratory hours.

MTR 1474 Surface Grinder-Methods and Procedures (O) 4 cr.

This course, designed to teach the proper methods and procedures of surface grinding, places special emphasis on shop safety procedures for mounting and removing grinding flat surface, grinding the edges of a workpiece square and parallel, and grinding an angular surface. Eight laboratory hours.

MTR 2123 Advanced Gas Metal-Arc Welding (O) 4 cr.

Prerequisite: MTR 1122. This course provides the student with a practical understanding of the safety, welding fundamentals, and procedures for the all-position gas metal-arc welding of aluminum as well as all-position gas metal-arc welding of steel using gas shielded and self shielded flux core welding wire. In-class demonstrations by instructors and students emphasize the development of the manual skills necessary to produce high quality gas metal arc fillet and groove welds using saled aluminum and flux core steel welding wire. Eight laboratory hours.

MTR 2126 Gas Tungsten Arc Welding Basic (O) 4 cr.

Prerequisite: MTR 1120 or demonstrated ability to satisfactorily complete the terminal objective of the MTR 1120. This course provides the student with a practical understanding of gas tungsten arc welding fundamentals, welding safety, arc characteristics, and equipment adjustment. The course also covers related information on the weld properties and qualities of mild carbon steel, stainless steel, and aluminum as well as information on pulsed current in preparation for more detailed applications used in gas tungsten-arc welding of pipe. The course places special emphasis, through professor's demonstration as well as student in-class practice, on developing the manual skills necessary to make high quality welds in all positions on 16 and 11 gauge mild steel, 16 gauge stainless steel and 11 gauge aluminum. Eight laboratory hours.

MTR 2142 Shielded Metal Arc Welding of Pipe (O) 4 cr.

Prerequisites: MTR 1120 and MTR 1121. This course provides the student with practical understanding of the techniques and procedures for shielded metal arc welding of pipe in accordance with the American Society of Mechanical Engineers (A.S.M.E.) and American Petroleum Institute (A.P.I.) codes. The course places special emphasis through instructor demonstrations as well as student in class practice is on developing the skills necessary to pass the 180° guided bend qualification tests for the fixed horizontal (5g), fixed vertical (2g) and fixed 45° (6g) positions. Eight laboratory hours.

MTR 2146 Gas Metal-Arc Pipe Welding (M.I.G.) (O) 4 cr.

Prerequisite: MTR 1122 or demonstrated ability to satisfactorily complete the terminal objective of MTR 1122. This course provides the student with a practical understanding of gas metal-arc welding of pipe. The course places special emphasis on developing the welding skills necessary to satisfactorily pass the American Society of Mechanical Engineers (A.S.M.E.) or American Petroleum Institute pressure vessel (pipe), M.I.G. process test in the fixed 45° angle (6g) position. Eight laboratory hours.

MTR 2147 Basic Gas Tungsten Arc Welding (T.I.G.) Pipe and Tubing (O) 4 cr.

Prerequisite: MTR 2126 or demonstrated ability to satisfactorily complete the terminal objectives of MTR 2126. This course provides the student with a practical understanding of T.I.G. welding of pipe and tubing. The course places special emphasis on the professor's demonstrations as well as

student in-class practice, and develops the welding skills necessary to satisfactorily pass the American Society of Mechanical Engineers (A.S.M.E.) pressure vessel (pipe), T.I.G. process test in the fixed 45° (6g) position. Eight laboratory hours.

MTR 2316 Advanced Pattern Development and Fabrication I (O) 4 cr

Prerequisite: MTR 1314. This course, designed to teach advanced triangulation method of pattern development, emphasizes the less common fittings and more technical or specialized patterns. Eight laboratory hours.

MTR 2317 Advanced Pattern Development and Fabrication II (O) 4 cr.

Prerequisite: MTR 2316. This course, a continuation of MTR 2316, introduces radial line development and the most common fittings which are laid out by the radial line process. Eight laboratory hours.

MTR 2345 Practicum in Sheet Metal (O) 3 cr.

Prerequisite: MTR 2317. This course provides the experience of working on actual job related projects. Six laboratory hours.

MTR 2481 Vertical Milling Methods and Procedures (O) 4 cr.

This course, designed to teach the proper methods and procedures of machining in a vertical milling machine, emphasizes shop safety methods and procedures of cutters and end mills that can be used in a vertical milling machine for performing various operations. The course also covers the mounting of various cutters, alignment of head and vise in order to mill a flat surface, square and parallel surface, and machine an angular surface. Eight laboratory hours.

MTR 2482 Horizontal Milling Methods and Procedures (O) 4 cr.

This course, designed to teach the methods and procedures of correctly setting up to perform various horizontal milling operations, covers the proper methods and procedures in changing cutters and arbors, alignment of the vise in order to mill a flat surface, vertical surface and an angular surface, as well as using safety precautions in setting up and operating. Eight laboratory hours.

MTR 2483 Machine Shaper (O) 4 cr.

This course, designed to teach the theory machining concepts and calculating setups and operational processing in the shaper trade (English-Metric), covers safety, setting work in the vise, setting of the length and position of the shaper stroke, machining of a flat surface, machining work square and parallel, the alignment of work in a vise, the alignment of the toolhead, shaping a vertical surface, and machining an angular surface. The course places special emphasis on shop safety precautions. Eight laboratory hours.

MTR 2484 Machine Measurement (O) 3 cr.

Prerequisite: MAT 0024. This course, designed to teach principles of and manipulation of the English metric system of measurement, places special emphasis on shop safety procedures, methods and use of the scale, inside and outside micrometers (English and Metric), inside and outside calipers, telescope gauges, combination set, and thread micrometers. Six laboratory hours.

Music Courses

MUC – Music: Composition

MUC 1301 Introduction to Electronic Music (P) 2 cr.

Prerequisite: Approval of professor. This beginning course in the history and practice of electronic music includes labo-

ratory work with tape recorders and synthesizers. Three contact hours (rehearsal).

MUE – Music: Education

MUE 1440 String Techniques (P) 1 cr.

Open to music majors, this course teaches basic performance skills on violin, viola, violin-cello, or double bass. Two contact hours (rehearsal).

MUE 1450 Woodwind Techniques (P) 1 cr.

The course, open to music majors, teaches basic performance skills on clarinet or flute. Two contact hours (rehearsal).

MUE 1460 Brass Techniques (P) 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).

MUE 1470 Percussion Techniques (P) 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: Conduction

MUG 1201 Basic Conducting (Choral) (P) 2 cr.

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

MUH – Music: History

MUH 2211 Survey of Music History (P) 3 cr.

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

MUH 2514 Folk and Traditional Music Of World Cultures (P) 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.

MUH 2515 Music in Contemporary Cultures (P) 3 cr.

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

MUH 2561 Afro-American Music: A Vocal Study (P) 3 cr.

Open to all students as an elective, this course studies the origins of the styles of Afro-American music beginning with its African origins and proceeding to its development in the New World and subsequent influence on America's indigenous music forms through the present day. To facilitate courage, the course emphasizes vocal idioms, including Minstrelsy, Blues, Rhythm and Blues, Soul, Rock, Gospel and Jazz. Three contact hours.

MUL – Music: Literature**MUL 1011 Music Appreciation (P) 3 cr.**

Prerequisite: ENC 1101 or satisfactory score on placement test. This course, designed for students with little or no musical training, combines a limited amount of training in music technology with extensive listening. This course includes reading and writing competencies. Three contact hours.

MUM – Music: Commercial**MUM 1600 Recording Techniques I (P) 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, making initial recordings of various groups or soloists, and the ability to mix down the initial recordings. Three contact hours: one lecture hour; two laboratory hours.

MUM 1601 Recording Techniques II (P) 3 cr.

Prerequisite: MUM 1600. This course is continuation of Recording Techniques I with emphasis on a more thorough understanding of the function of each piece of equipment in the recording studio. It offers the second semester student more advanced information on the mix-down process. This course has a \$15.00 materials fee. Six contact hours: two lecture hours; four studio hours.

MUN – Music: Music Ensembles**MUN 1130 Symphonic Band (P) 3 cr.**

This course, a requirement for all woodwind, brass and percussion majors, includes traditional and contemporary band literature. The music department urges all students with previous experience 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. Six contact hours (rehearsal).

MUN 1280 Community Orchestra (P) 1 cr.

Prerequisite: open by audition to members of the community. The Community Orchestra provides instrumentalists in the college and community an opportunity to perform works representative of a broad spectrum of orchestral literature, 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 AA degree. Two contact hours (rehearsal).

MUNA 1310 College Chorus (P) 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 AA degree. Three contact hours (rehearsal).

MUNB 1310 College Chorale (P) 1 cr.

Prerequisite: Permission of director; previous choral experience and/or audition with professor. The repertoire of the College Chorale includes the more difficult sacred and secular compositions, accompanied and unaccompanied. The student may elect this course for credit each semester, with up to four credits counting toward the AA degree. Five contact hours.

MUN 1340 Chamber Choir (P) 1 cr.

Prerequisite: Previous choral experience and audition with the director. The repertoire of the Chamber Choir includes sacred and secular compositions, with an emphasis on a capella literature of the 17th through 20th centuries. With membership limited to fifteen (15) to twenty (20) singers, a

student may take this course each semester, with up to four (4) elective credits counting toward the AA degree. Three contact hours (rehearsal).

MUN 1380 Community Chorus, Jacksonville Concert Chorale (P) 1 cr.

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

MUN 1410 String Ensemble (P) 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 (P) 1 cr.

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

MUN 1710 Jazz-Rock Ensemble (P) 1 cr.

Prerequisite: permission of the director. The repertoire includes various styles from jazz and popular literature. The student may select this course for credit each semester, with up to four credits counting toward AA degree. Three contact hours (rehearsal).

MUO – Music: Opera/Musical Theatre**MUO 1001 Music Theatre Workshop (P) 1 cr.**

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

MUS – Music**MUS 1000 Student Recital (P) 1 cr.**

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

MUT – Music: Theory**MUT 1001 Introduction to Music Theory (P) 3 cr.**

This course, designed for students whose background and theory placement test scores indicate further preparation is needed for MUT 1121, includes work with elementary music terminology, notation, intervals, scales, chords, rhythm, sight singing, and diction. Three contact hours.

MUT 1121 Music Theory I (P) 4 cr.

This elementary course in music theory and the principles underlying all music. It includes music terminology, notation, harmony, melody, and rhythm, in addition to sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 1122 Music Theory II (P) 4 cr.

Prerequisite: MUT 1121. A continuation of MUT 1121, this basic course includes music terminology, notation, harmony, melody, rhythm, and form as well as sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 2126 Music Theory III (P) 4 cr.

Prerequisite: MUT 1122. This continuing course in the techniques of analysis and part writing in vocal, keyboard and instrumental styles includes an advanced tertian harmony, modulation, sequence, and phrase, and part forms along with sight singing and ear training. Five contact hours: three lecture hours; two rehearsal hours.

MUT 2127 Music Theory IV (P) 4 cr.

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

MUT 2231 Keyboard Harmony I (P) 1 cr.

Prerequisite: MUT 2127. Required of all music majors, this course includes development of skills at the piano with emphasis upon harmonization of melodies, modulation, transposition, and improvisation. Two contact hours.

MUT 2232 Keyboard Harmony II (P) 1 cr.

Prerequisite: MUT 2231. This course is a continuation of MUT 2231. Two contact hours.

MVK – Music: Keyboard**MVKA 1111 Class Piano I (P) 1 cr.**

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

MVKB 1111 Class Piano II (P) 1 cr.

Prerequisite: MVKA 1111. This course is a continuation of MVKA 1111 and is a requirement for all music majors. Two contact hours (rehearsal).

MVKA 2121 Class Piano III (P) 1 cr.

Prerequisite: MVKB 1111. This course is a continuation of MVKB 1111 and is a requirement for all music majors. Two contact hours (rehearsal).

MVKB 2121 Class Piano IV (P) 1 cr.

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

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

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

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

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

MVS – Music: Strings**MVSA 1116 Class Guitar I (P) 1 cr.**

This basic course, designed for students who are interested in studying Classic Guitar, includes a study of the development of the instrument, past and present guitar masters, and the music literature for the guitar and technique. Two contact hours (rehearsal).

MVSB 1116 Class Guitar II (P) 1 cr.

Prerequisite: MVSA 1116. This course is a continuation of MVSA 1116, Class Guitar I, perfecting and advancing skills learned therein. Two contact hours (rehearsal).

MVSA 2126 Class Guitar III (P) 1 cr.

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

MVSB 2126 Class Guitar IV (P) 1 cr.

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

MVV – Music: Voice**MVVA 1111 Class Voice I (P) 1 cr.**

This course is for singers wishing to further their vocal skills and instrumentalists wishing a fundamental vocal knowledge. The course emphasizes correct diction and tone production with student's receiving individual aid. Two contact hours (rehearsal).

MVVB 1111 Class Voice II (P) 1 cr.

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

MVVA 2121 Class Voice III (P) 1 cr.

Prerequisite: MVVB 1111. This course is for singers wishing to develop vocal skills beyond elementary level of correct diction and tone production. The course is also open to instrumentalists wishing more than a basic vocal knowledge and competency level. This course meets as a class, yet emphasizes individual attention. Two contact hours (rehearsal).

MVVB 2121 Class Voice IV (P) 1 cr.

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

Applied Music Courses**MVB – Music: Brasses****Baritone****MVBA 1014 Applied Preparatory Baritone I (P) 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.

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

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

MVBA 1314 Applied Principal Baritone I (P) 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 1314 Applied Principal Baritone II (P) 2 cr.

Prerequisite: MVBA 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.

MVBA 2324 Applied Principal Baritone III (P) 2 cr.

Prerequisite: MVBB 1314. Third semester of private lessons designed for the student majoring in any area of music ex-

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

**MVBB 2324 Applied Principal
Baritone IV (P) 2 cr.**

Prerequisite: MVBA 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.

**MVBA 1214 Applied Secondary
Baritone I (P) 1 cr.**

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 1214 Applied Secondary
Baritone II (P) 1 cr.**

Prerequisite: MVBA 1214. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBA 2224 Applied Secondary
Baritone III (P) 1 cr.**

Prerequisite: MVBB 1214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 2224 Applied Secondary
Baritone IV (P) 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 a week.

**MVBA 1414 Applied Major
Baritone I (P) 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 1414 Applied Major
Baritone II (P) 3 cr.**

Prerequisite: MVBA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBA 2424 Applied Major
Baritone III (P) 3 cr.**

Prerequisite: MVBB 1414. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBB 2424 Applied Major
Baritone IV (P) 3 cr.**

Prerequisite: MVBA 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVW – Music: Woodwinds

Bassoon

**MVWA 1014 Applied Preparatory
Bassoon I (P) 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.

**MVWB 1014 Applied Preparatory
Bassoon II (P) 2 cr.**

Prerequisite: MVWA 1014. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

**MVWA 1314 Applied Principal
Bassoon I (P) 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 1314 Applied Principal
Bassoon II (P) 2 cr.**

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

**MVWA 2324 Applied Principal
Bassoon III (P) 2 cr.**

Prerequisite: MVWB 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.

**MVWB 2324 Applied Principal
Bassoon IV (P) 2 cr.**

Prerequisite: MVWA 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.

**MVWA 1214 Applied Secondary
Bassoon I (P) 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 1214 Applied Secondary
Bassoon II (P) 1 cr.**

Prerequisite: MVWA 1214. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVWA 2224 Applied Secondary
Bassoon III (P) 1 cr.**

Prerequisite: MVWB 1214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVWB 2224 Applied Secondary
Bassoon IV (P) 1 cr.**

Prerequisite: MVWA 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.

**MVWA 1414 Applied Major
Bassoon I (P) 3 cr.**

Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVWB 1414 Applied Major
Bassoon II (P) 3 cr.**

Prerequisite: MVWA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWA 2424 Applied Major Bassoon III (P) 3 cr.

Prerequisite: MVWB 1414. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2424 Applied Major Bassoon IV (P) 3 cr.

Prerequisite: MVWA 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS – Music: Strings (Continued)
Cello****MVSA 1013 Applied Preparatory Cello I (P) 2 cr.**

Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson a week.

MVSB 1013 Applied Preparatory Cello II (P) 2 cr.

Prerequisite: MVSA 1013. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVSA 1313 Applied Principal Cello I (P) 2 cr.

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

MVSB 1313 Applied Principal Cello II (P) 2 cr.

Prerequisite: MVSA 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.

MVSA 2323 Applied Principal Cello III (P) 2 cr.

Prerequisite: MVSB 1313. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSB 2323 Applied Principal Cello IV (P) 2 cr.

Prerequisite: MVSA 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.

MVSA 1213 Applied Secondary Cello I (P) 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.

MVSB 1213 Applied Secondary Cello II (P) 1 cr.

Prerequisite: MVSA 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.

MVSA 2223 Applied Secondary Cello III (P) 1 cr.

Prerequisite: MVSB 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an

instrument other than their principal or major. One half-hour lesson per week.

MVSB 2223 Applied Secondary Cello IV (P) 1 cr.

Prerequisite: MVSA 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.

MVSA 1413 Applied Major Cello I (P) 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.

MVSB 1413 Applied Major Cello II (P) 3 cr.

Prerequisite: MVSA 1413. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2423 Applied Major Cello III (P) 3 cr.

Prerequisite: MVSB 1413. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSB 2423 Applied Major Cello IV (P) 3 cr.

Prerequisite: MVSA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVW – Music: Woodwinds (Continued)
Clarinet****MVWA 1013 Applied Preparatory Clarinet I (P) 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.

MVWB 1013 Applied Preparatory Clarinet II (P) 2 cr.

Prerequisite: MVWA 1013. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWA 1313 Applied Principal Clarinet I (P) 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 1313 Applied Principal Clarinet II (P) 2 cr.

Prerequisite: MVWA 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.

MVWA 2323 Applied Principal Clarinet III (P) 2 cr.

Prerequisite: MVWB 1313. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVWB 2323 Applied Principal Clarinet IV (P) 2 cr.

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

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

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

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

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

MVWB 2423 Applied Major Clarinet IV (P) 3 cr.
Prerequisite: MVWA 2423. 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 (P) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVWB 1011 Applied Preparatory Flute II (P) 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 (P) 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 (P) 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 2321 Applied Principal Flute III (P) 2 cr.
Prerequisite: MVWB 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.

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

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

MVWB 2221 Applied Secondary Flute IV (P) 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 (P) 3 cr.
Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

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

MVB – Music: Brasses (Continued) French Horn

MVBA 1012 Applied Preparatory French Horn I (P) 2 cr.
Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose back-

ground indicates a need for further preparation. One hour lesson per week.

**MVBB 1012 Applied Preparatory
French Horn II (P) 2 cr.**

Prerequisite: MVBA 1012. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

**MVBA 1312 Applied Principal
French Horn I (P) 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 1312 Applied Principal
French Horn II (P) 2 cr.**

Prerequisite: MVBA 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.

**MVBA 2322 Applied Principal
French Horn III (P) 2 cr.**

Prerequisite: MVBB 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.

**MVBB 2322 Applied Principal
French Horn IV (P) 2 cr.**

Prerequisite: MVBA 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.

**MVBA 1212 Applied Secondary
French Horn I (P) 1 cr.**

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 1212 Applied Secondary
French Horn II (P) 1 cr.**

Prerequisite: MVBA 1212. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBA 2222 Applied Secondary
French Horn III (P) 1 cr.**

Prerequisite: MVBB 1212. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 2222 Applied Secondary
French Horn IV (P) 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 1412 Applied Major
French Horn I (P) 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 1412 Applied Major
French Horn II (P) 3 cr.**

Prerequisite: MVBA 1412. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBA 2422 Applied Major
French Horn III (P) 3 cr.**

Prerequisite: MVBB 1412. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBB 2422 Applied Major
French Horn IV (P) 3 cr.**

Prerequisite: MVBA 2422. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS – Music: Strings (Continued)
Guitar**

**MVSA 1016 Applied Preparatory
Guitar I (P) 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 1016 Applied Preparatory
Guitar II (P) 2 cr.**

Prerequisite: MVSA 1016. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

**MVSA 1316 Applied Principal
Guitar I (P) 2 cr.**

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

**MVSB 1316 Applied Principal
Guitar II (P) 2 cr.**

Prerequisite: MVSA 1316. 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 2326 Applied Principal
Guitar III (P) 2 cr.**

Prerequisite: MVSB 1316. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

**MVSB 2326 Applied Principal
Guitar IV (P) 2 cr.**

Prerequisite: MVSA 2326. 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 1216 Applied Secondary
Guitar I (P) 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.

**MVSB 1216 Applied Secondary
Guitar II (P) 1 cr.**

Prerequisite: MVSA 1216. 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 2226 Applied Secondary
Guitar III (P) 1 cr.**

Prerequisite: MVSB 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.

**MVSB 2226 Applied Secondary
Guitar IV (P) 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 (P) 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.

MVSB 1416 Applied Major Guitar II (P) 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 (P) 3 cr.**

Prerequisite: MVSB 1416. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVSB 2426 Applied Major
Guitar IV (P) 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)
Oboe****MVWA 1012 Applied Preparatory
Oboe I (P) 2 cr.**

Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lessons per week.

**MVWB 1012 Applied Preparatory
Oboe II (P) 2 cr.**

Prerequisite: MVWA 1012. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

**MVWA 1312 Applied Principal
Oboe I (P) 2 cr.**

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

**MVWB 1312 Applied Principal
Oboe II (P) 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 (P) 2 cr.**

Prerequisite: MVWB 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.

**MVWB 2322 Applied Principal
Oboe IV (P) 2 cr.**

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

**MVWA 1212 Applied Secondary
Oboe I (P) 1 cr.**

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVWB 1212 Applied Secondary
Oboe II (P) 1 cr.**

Prerequisite: MVWA 1212. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVWA 2222 Applied Secondary
Oboe III (P) 1 cr.**

Prerequisite: MVWB 1212. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVWB 2222 Applied Secondary
Oboe IV (P) 1 cr.**

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

MVWA 1412 Applied Major Oboe I (P) 3 cr.

Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 1412 Applied Major Oboe II (P) 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 (P) 3 cr.

Prerequisite: MVWB 1412. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVWB 2422 Applied Major Oboe IV (P) 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)
Organ****MVKA 1013 Applied Preparatory
Organ I (P) 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 (P) 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 (P) 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.

**MVKB 1313 Applied Principal
Organ II (P) 2 cr.**

Prerequisite: MVKA 1313. Second semester of private lessons designed for the student majoring in any area of music

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

MVKA 2323 Applied Principal Organ III (P) 2 cr.

Prerequisite: MVKB 1313. 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.

MVKB 2323 Applied Principal Organ IV (P) 2 cr.

Prerequisite: MVKA 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.

MVKA 1213 Applied Secondary Organ I (P) 1 cr.

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKB 1213 Applied Secondary Organ II (P) 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 (P) 1 cr.

Prerequisite: MVKB 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKB 2223 Applied Secondary Organ IV (P) 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 (P) 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.

MVKB 1413 Applied Major Organ II (P) 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 (P) 3 cr.

Prerequisite: MVKB 1413. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVKB 2423 Applied Major Organ IV (P) 3 cr.

Prerequisite: MVKA 2423. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVO – Music: Other Instruments
Other**

MVOA 1010 Applied Preparatory Other I (P) 2 cr.

Prerequisite: placement by audition before the music faculty. Private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVOB 1010 Applied Preparatory Other II (P) 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 Principal Other I (P) 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.

MVOB 1310 Applied Principal Other II (P) 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 2320 Applied Principal Other III (P) 2 cr.

Prerequisite: MVOB 1310. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVOB 2320 Applied Principal Other IV (P) 2 cr.

Prerequisite: MVOA 2320. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVOA 1210 Applied Secondary Other I (P) 1 cr.

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVOB 1210 Applied Secondary Other II (P) 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 (P) 1 cr.

Prerequisite: MVOB 1210. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVOB 2220 Applied Secondary Other IV (P) 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 (P) 3 cr.

Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOB 1410 Applied Major Other II (P) 3 cr.

Prerequisite: MVOA 1410. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOA 2420 Applied Major Other III (P) 3 cr.

Prerequisite: MVOB 1410. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVOB 2420 Applied Major Other IV (P) 3 cr.
Prerequisite: MVOA 2420. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVP – Music Percussion Percussion

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

MVPB 1011 Applied Preparatory Percussion II (P) 2 cr.
Prerequisite: MVPA 1011. Second semester of private lessons designed for the student majoring in performance. One hour lesson per week.

MVPA 1311 Applied Principal Percussion I (P) 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.

MVPB 1311 Applied Principal Percussion II (P) 2 cr.
Prerequisite: MVPA 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.

MVPA 2321 Applied Principal Percussion III (P) 2 cr.
Prerequisite: MVPB 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.

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

MVPA 1211 Applied Secondary Percussion I (P) 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.

MVPB 1211 Applied Secondary Percussion II (P) 1 cr.
Prerequisite: MVPA 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.

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

MVPB 2221 Applied Secondary Percussion IV (P) 1 cr.
Prerequisite: MVPA 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.

MVPA 1411 Applied Major Percussion I (P) 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.

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

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

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

MVK – Music: Keyboard (Continued) Piano

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

MVKA 1311 Applied Principal Piano I (P) 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.

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

MVKA 2321 Applied Principal Piano III (P) 2 cr.
Prerequisite: MVKB 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.

MVKB 2321 Applied Principal Piano IV (P) 2 cr.
Prerequisite: MVKA 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.

MVKA 1211 Applied Secondary Piano I (P) 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 1211 Applied Secondary Piano II (P) 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 (P) 1 cr.
Prerequisite: MVKB 1211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVKB 2221 Applied Secondary Piano IV (P) 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 1411 Applied Major Piano I (P) 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.

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

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

MVW – Music: Woodwinds (Continued) Saxophone

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

MVWB 1015 Applied Preparatory Saxophone II (P) 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 (P) 2 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

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

MVWA 2325 Applied Principal Saxophone III (P) 2 cr.
Prerequisite: MVWB 1315. Third semester of private lessons designed for the student majoring in any area of music

except performance (e.g. music education, music therapy, etc.). Two half-hour lessons per week.

MVWB 2325 Applied Principal Saxophone IV (P) 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 (P) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

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

MVWB 2225 Applied Secondary Saxophone IV (P) 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 1415 Applied Major Saxophone I (P) 3 cr.
Prerequisite: placement by audition before the entire full-time faculty. First semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

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

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

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

MVS – Music: Strings (Continued) String Bass

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

MVSB 1014 Applied Preparatory String Bass II (P) 2 cr.

Prerequisite: MVSA 1014. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVSA 1314 Applied Principal String Bass I (P) 2 cr.

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

MVSB 1314 Applied Principal String Bass II (P) 2 cr.

Prerequisite: MVSA 1314. Second semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSA 2324 Applied Principal String Bass III (P) 2 cr.

Prerequisite: MVSB 1314. Third semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSB 2324 Applied Principal String Bass IV (P) 2 cr.

Prerequisite: MVSA 2324. Fourth semester of private lessons designed for the student majoring in any area of music except performance (e.g. music education, music therapy, etc.). Two half-hour lessons a week.

MVSA 1214 Applied Secondary String Bass I (P) 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.

MVSB 1214 Applied Secondary String Bass II (P) 1 cr.

Prerequisite: MVSA 1214. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSA 2224 Applied Secondary String Bass III (P) 1 cr.

Prerequisite: MVSB 1214. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVSB 2224 Applied Secondary String Bass IV (P) 1 cr.

Prerequisite: MVSA 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.

MVSA 1414 Applied Major String Bass I (P) 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.

MVSB 1414 Applied Major String Bass II (P) 3 cr.

Prerequisite: MVSA 1414. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSA 2424 Applied Major String Bass III (P) 3 cr.

Prerequisite: MVSB 1414. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVSB 2424 Applied Major String Bass IV (P) 3 cr.

Prerequisite: MVSA 2424. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVB – Music: Brasses (Continued)
Trombone****MVBA 1013 Applied Preparatory Trombone 1 (P) 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.

MVBB 1013 Applied Preparatory Trombone II (P) 2 cr.

Prerequisite: MVBA 1013. Second semester of private lessons designed for music majors whose background indicates a need for further preparation. One hour lesson per week.

MVBA 1313 Applied Principal Trombone I (P) 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 ed., music therapy, etc.). Two half-hour lessons a week.

MVBB 1313 Applied Principal Trombone II (P) 2 cr.

Prerequisite: MVBA 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.

MVBA 2323 Applied Principal Trombone III (P) 2 cr.

Prerequisite: MVBB 1313. 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 2323 Applied Principal Trombone IV (P) 2 cr.

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

MVBA 1213 Applied Secondary Trombone I (P) 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 their than other principal or major. One half-hour lesson per week.

MVBB 1213 Applied Secondary Trombone II (P) 1 cr.

Prerequisite: MVBB 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.

MVBA 2223 Applied Secondary Trombone III (P) 1 cr.

Prerequisite: MVBB 1213. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

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

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

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

MVB – Music: Brasses (Continued)

Trumpet

MVBA 1011 Applied Preparatory Trumpet I (P) 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.

MVBB 1011 Applied Preparatory Trumpet II (P) 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 (P) 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 (P) 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 (P) 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 (P) 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 1211 Applied Secondary Trumpet I (P) 1 cr.
Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

MVBB 1211 Applied Secondary Trumpet II (P) 1 cr.
Prerequisite: MVBA 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.

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

MVBB 2221 Applied Secondary Trumpet IV (P) 1 cr.
Prerequisite: MVBA 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.

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

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

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

MVB – Music: Brasses (continued)

Tuba

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

MVBB 1015 Applied Preparatory Tuba II (P) 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 (P) 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 (P) 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.

**MVBA 2325 Applied Principal
Tuba III (P) 2 cr.**

Prerequisite: MVBB 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.

**MVBB 2325 Applied Principal
Tuba IV (P) 2 cr.**

Prerequisite: MVBA 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.

**MVBA 1215 Applied Secondary
Tuba I (P) 1 cr.**

Prerequisite: placement by audition before the music faculty. First semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 1215 Applied Secondary
Tuba II (P) 1 cr.**

Prerequisite: MVBA 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.

**MVBA 2225 Applied Secondary
Tuba III (P) 1 cr.**

Prerequisite: MVBB 1215. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVBB 2225 Applied Secondary
Tuba IV (P) 1 cr.**

Prerequisite: MVBA 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.

**MVBA 1415 Applied Major
Tuba I (P) 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 1415 Applied Major
Tuba II (P) 3 cr.**

Prerequisite: MVBA 1415. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBA 2425 Applied Major
Tuba III (P) 3 cr.**

Prerequisite: MVBB 1415. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVBB 2425 Applied Major
Tuba IV (P) 3 cr.**

Prerequisite: MVBA 2425. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVS – Music: Strings (Continued)
Viola****MVSA 1012 Applied Preparatory
Viola I (P) 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 (P) 2 cr.**

Prerequisite: MVSA 1012. 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 (P) 2 cr.**

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

**MVSB 1312 Applied Principal
Viola II (P) 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 (P) 2 cr.**

Prerequisite: MVSB 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.

**MVSB 2322 Applied Principal
Viola IV (P) 2 cr.**

Prerequisite: MVSA 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.

**MVSA 1212 Applied Secondary
Viola I (P) 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.

**MVSB 1212 Applied Secondary
Viola II (P) 1 cr.**

Prerequisite: MVSA 1212. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVSA 2222 Applied Secondary
Viola III (P) 1 cr.**

Prerequisite: MVSB 1212. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVSB 2222 Applied Secondary
Viola IV (P) 1 cr.**

Prerequisite: MVSA 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.

**MVSA 1412 Applied Major
Viola I (P) 3 cr.**

Prerequisite: placement by audition before the entire full-time music faculty. First semester of private lessons de-

signed for the student majoring in performance. Two half-hour lessons a week.

**MVSB 1412 Applied Major
Viola II (P) 3 cr.**

Prerequisite: MVSA 1412. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVSA 2422 Applied Major
Viola III (P) 3 cr.**

Prerequisite: MVSB 1412. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVSB 2422 Applied Major
Viola IV (P) 3 cr.**

Prerequisite: MVSA 2422. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVS – Music: Strings (Continued)

Violin

**MVSA 1011 Applied Preparatory
Violin I (P) 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 1011 Applied Preparatory
Violin II (P) 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 1311 Applied Principal
Violin I (P) 2 cr.**

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

**MVSB 1311 Applied Principal
Violin II (P) 2 cr.**

Prerequisite: MVSA 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.

**MVSA 2321 Applied Principal
Violin III (P) 2 cr.**

Prerequisite: MVSB 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.

**MVSB 2321 Applied Principal
Violin IV (P) 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 1211 Applied Secondary
Violin I (P) 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.

**MVSB 1211 Applied Secondary
Violin II (P) 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 2221 Applied Secondary
Violin III (P) 1 cr.**

Prerequisite: MVSB 1211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson per week.

**MVSB 2221 Applied Secondary
Violin IV (P) 1 cr.**

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

**MVSA 1411 Applied Major
Violin I (P) 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.

**MVSB 1411 Applied Major
Violin II (P) 3 cr.**

Prerequisite: MVSA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVSA 2421 Applied Major
Violin III (P) 3 cr.**

Prerequisite: MVSB 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVSB 2421 Applied Major
Violin IV (P) 3 cr.**

Prerequisite: MVSA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

MVV – Music: Voice (Continued)

Voice

**MVVA 1011 Applied Preparatory
Voice I (P) 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.

**MVVB 1011 Applied Preparatory
Voice II (P) 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.

MVVA 1111 Class Voice I (P) 1 cr.

For singers wishing to further their vocal skills and instrumentalists wishing a fundamental vocal knowledge. Emphasis on correct diction and tone production. Individual aid given. Two contact hours (rehearsal).

MVVB 1111 Class Voice II (P) 1 cr.

A continuation of MVVA 1111. Two contact hours (rehearsal).

**MVVA 1311 Applied Principal
Voice I (P) 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.

**MVVB 1311 Applied Principal
Voice II (P) 2 cr.**

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

**MVVA 2321 Applied Principal
Voice III (P) 2 cr.**

Prerequisite: MVVB 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.

**MVVB 2321 Applied Principal
Voice IV (P) 2 cr.**

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

**MVVA 1211 Applied Secondary
Voice I (P) 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.

**MVVB 1211 Applied Secondary
Voice II (P) 1 cr.**

Prerequisite: MVVA 1211. Second semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson a week.

**MVVA 2221 Applied Secondary
Voice III (P) 1 cr.**

Prerequisite: MVVB 1211. Third semester of private lessons designed for music majors needing to gain proficiency on an instrument other than their principal or major. One half-hour lesson a week.

**MVVB 2221 Applied Secondary
Voice IV (P) 1 cr.**

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

**MVVA 1411 Applied Major
Voice I (P) 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.

**MVVB 1411 Applied Major
Voice II (P) 3 cr.**

Prerequisite: MVVA 1411. Second semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVVA 2421 Applied Major
Voice III (P) 3 cr.**

Prerequisite: MVVB 1411. Third semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

**MVVB 2421 Applied Major
Voice IV (P) 3 cr.**

Prerequisite: MVVA 2421. Fourth semester of private lessons designed for the student majoring in performance. Two half-hour lessons a week.

NUR – Nursing Practice and Theory**NUR 1000C Transitional Nursing
Process I (O) 12 cr.**

Prerequisites: APB 2190C, APB 2191C, MCB 2013C, ENC 1101, ENC 1102, PSY 1012, DEP 2004 and any 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, asepsis, fluids/electrolytes and drug administration. The course includes basic principles of mental health, communication, family and pediatric nursing, with emphasis placed on resocialization of the nurse's role within the framework of the nursing process. This course utilizes simulated and actual nursing care work experience for application of theoretical concepts. Students 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 (O) 10 cr.**

Prerequisite: APB 2191C. 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—serve as the framework for the application of content with emphasis on nursing intervention and adaptations for specific age groups to meet the basic need of man in health maintenance. Content and experience focus on observations, communications, the interpersonal process, recording, hygienic practices, administration of drugs, asepsis, nutrition, elimination, fluid balance and oxygen. The course introduces current trends and legal implications of nursing. Fifteen contact hours: five class periods; ten hours of laboratory experience on campus, in community hospitals and other health agencies.

**NUR 1212C Nursing Process II
Medical Surgical
Nursing (O) 10 cr.**

Prerequisite: NUR 1021C; Corequisite: DEP 2004. With Nursing I as a foundation, this course moves from the basic patient needs in health maintenance to health problems which require new knowledge and adaption and includes study of the physical and psychological needs of patients. The course places emphasis on the essential knowledge, understanding and skills necessary to the nursing care of patients with medical and surgical conditions and upon the interpersonal process. This course continues the four steps of the nursing process with a higher level of performance expected of students. Sixteen contact hours: four class hours; 12 hours of laboratory experience for 16 weeks on campus, in community hospitals and other health agencies.

**NUR 1703C Transitional
Nursing II (O) 6 cr.**

Corequisite: NUR 1000C. A continuation of NUR 1000C, this course, designed for and limited to the Florida Licensed Practical Nurse, introduces the student to the use of the nursing process in the student's newly developing role when interacting with clients having interruptions in their physical and psychological health. The course emphasizes demonstration of knowledge, comprehension, application and analysis of the nursing process and includes drug and diet therapy. The course utilizes simulated and actual nursing experience to apply theoretical concepts and evaluates clinical skills in the campus nursing laboratory. Eight contact hours: four lecture hours; four laboratory hours (in campus lab or clinical facility).

**NUR 2313C Nursing Process IIIB –
Nursing Care of
Children (O) 6 cr.**

Prerequisite: NUR 1212C; Corequisites: MCB 2013C, NUR 2420C. With Nursing I and II as a basis, Nursing IIIB en-

compasses the study of physical and psychological problems of children from infancy through adolescence. This course uses the family-centered approach for learning the skills needed to care for sick children. Pediatric nursing supports the belief that children, by nature of their growth and development, physical and emotional immaturity, have needs in health and illness different from those of adults. Through the utilization of the nursing process and the interpersonal process, this course also assists the student to apply knowledge of pediatric nursing in the solving of the common recurring health problem associated with the child. Nineteen contact hours: five class hours, 14 hours of laboratory experience for 7.5 weeks on campus, in community hospitals, and other health agencies.

**NUR 2420C Nursing Process IIIA—
Nursing Care of The
Childbearing Family (O) 6 cr.**

Prerequisites: NUR 1212C, APB 2191C; Corequisites: MCB 2013C, NUR 2313C. With Nursing I and II as a basis, Nursing IIIA encompasses the childbearing cycle as an adaptation of the state of wellness and continues through the neonatal stage of development. Nursing the childbearing family focuses on nursing intervention with families who are experiencing the stresses of the childbearing period. The nursing care of the childbearing family given by the student nurse relies on the belief that special needs and problems occurring at designated points in the growth cycle are outgrowths of the developmental level attained by the individual. This course emphasizes utilizing nursing and interpersonal processes to identify and meet the physiological and psychological needs of the childbearing family. This course also covers the uncomplicated and the complicated pregnancy, the focus being on the common, recurring problems of this period. Laboratory experiences occur in community hospitals and other health agencies. Nineteen contact hours: five class hours, 14 hours of laboratory experience for 7.5 weeks on campus, in community hospitals and other health agencies.

**NUR 2521C Nursing Process IVB –
Psychiatric Nursing (O) 3 cr.**

Prerequisites: NUR 2420C, NUR 2313C; Corequisite: NUR 2731C. This 4 week course will build on the mental health concepts presented in each of the previous nursing courses. In varied clinical settings, this course emphasizes the use of the nursing process in the care of adolescent and adult clients with deviant patterns of behavior. Nineteen contact hours: five lecture hours; fourteen hours of laboratory experience. (Four weeks.)

**NUR 2731C Nursing Process IVA—
Medical-Surgical
Nursing Care of the
Adult Patient (O) 9 cr.**

Prerequisites: NUR 2420C, NUR 2313C; Corequisite: NUR 2521C. This 11 week course is a continuation of the study of commonly recurring health problems of patients from the young adult years through senescence with focus on the illness side of the continuum. The nursing process will serve as the basis for nursing care. The student will give nursing care to patients with medical-surgical deviations. Learning experiences will 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 Technical Nurse practitioner, this course includes a transitional experience in this unit of study. Twenty contact hours: four class hours, 16 hours of laboratory experience (eleven weeks).

OCB – Oceanography: Biological

OCB 2602C Marine Biology (P) 4 cr.

The student will benefit by taking BSC 2011C or High School Chemistry or Physics, or CHM 1040C prior to enrolling in this course. This course consists of a comprehensive survey of marine ecosystems with emphasis on the local flora and fauna. Laboratory includes collection and identification of marine organisms. Six contact hours: three lecture hours; three laboratory hours.

OCE – Oceanography: General

**OCE 2005C Introductory Oceanography
(P) 4 cr.**

Prerequisite: MAT 1033; Corequisite: MAC 1114. The student will benefit by taking high school chemistry and/or physics prior to enrolling in this course. This course consists of an introductory, comprehensive treatment of physical, chemical, and geological aspects of our oceans. Six contact hours: three lecture hours; three laboratory hours.

ORI – Oral Interpretation

ORI 2000 Oral Interpretation (P) 3 cr.

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 (D) 3 cr.

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

**OST 1110 Intermediate Typewriting
(D) 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, memoranda, reports, tables, and forms. (Students who have satisfactorily completed two years of high school typewriting should enroll in OST 2120.) Three contact hours.

OST 1211 Beginning Shorthand (D) 3 cr.

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

OST 1212 Intermediate Shorthand (D) 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 25 words per minute on straight copy. This course is a continuation of Gregg Shorthand with increased practice in dictation and transcription. Three contact hours.

**OST 1324 Business Mathematics
Using Calculators (D) 3 cr.**

Prerequisite: Satisfactory score on placement test. This course consists of a 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 numeric touch system and calculating skills in handling business transactions. The course covers percentages, simple and compound interest, inventories, depreciation, payroll, commissions, taxes, metrics, and other business related topics. Three contact hours.

OST 1401 Office Systems I (D) 3 cr.

Prerequisite: OST 1100 or ability to type 25 words per minute. This course is an introduction to office systems as 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 (D) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test; OST 1100 or ability to type 25 words a minute. This course integrates beginning transcription and keyboarding techniques with the development of reading, 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 (D) 3 cr.

Prerequisite: OST 1110 or ability to type 40 words a 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 (D) 3 cr.

Prerequisite: OST 1110 or ability to type 40 words a minute for five minutes on straight copy. This course emphasizes production typing of office correspondence, tables, reports, forms, and special documents. Simulated office materials are utilized, and mailable or usable copy is expected. Three contact hours.

OST 2131 Advanced Typewriting - Legal (O) 3 cr.

Prerequisite: OST 1110 or ability to type 45 words a minute for five minutes on straight copy. This is a course designed to give secretarial science students background in the field of legal typing as well as sharpen and refresh the skills of the legal secretary with emphasis on real estate, litigation, wills, estates, and guardianships, and partnerships and corporations. Three contact hours.

OST 2135 Advanced Typewriting - Medical (O) 3 cr.

Prerequisite: OST 1110 or ability to type 45 words a minute for five minutes on straight copy. This is an advanced typewriting course designed to give secretarial science students background and practice in medical terminology, papers and forms that students need to know for employment as a medical secretary, assistant, or typist. Three contact hours.

OST 2213 Advanced Shorthand (D) 3 cr.

Prerequisite: OST 1212 or ability to take dictation at 60 words per minute for three minutes. This course reviews Gregg Shorthand theory and develops the ability to take dictation and transcription 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 (D) 3 cr.

Prerequisite: ENC 1101 or consent of professor, and the ability to typewrite. 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 II (D) 3 cr.

Prerequisite: OST 1401. This course is a continuation of Office Systems I with an in-depth review of the information

processing cycle. Planning, organizing, decision making, and career development skills will be emphasized. Three contact hours.

OST 2404 Office Systems Management (O) 3 cr.

This course applies management principles to planning and controlling office systems. Emphasis is given to organization of office operations, control of office resources, leadership and motivation of office personnel, office environment, and design of business information systems. Three contact hours.

OST 2602 Machine Transcription II (O) 3 cr.

Prerequisite: OST 1801. Prerequisite or Corequisite: 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 of office papers, and in the effective use of current office technology. Three contact hours.

OST 2712 Word Processing II (D) 3 cr.

Prerequisite: OST 1711. This course, covering word processing concepts and applications, is a continuation of OST 1711. It emphasizes tables, special functions, and files. Three contact hours.

PCB - Process (Cell and Molecular) Biology Environment

PCB 2030 Ecological Crises (P) 3 cr.

This is a course designed to enhance the student's awareness and understanding of the environment and of ecological issues. The course provides an analysis of the interrelationships of the physical and biological factors in natural ecosystems stressing man's interaction and impact on these ecosystems. Three contact hours.

PEL - Physical Education Acts (General) - Object Centered, Land

PEL 1041 Recreational Games (P) 1 cr.

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

PEL 1111 Beginning Bowling (P) 1 cr.

This course, designed to teach the fundamental skills, techniques, and the knowledge necessary for bowling enjoyment, will prepare the student for recreational and league bowling. Two contact hours (activity).

PEL 1121 Beginning Golf (P) 1 cr.

This beginning course teaches the basic golf swing and its application to starter clubs. The course also includes golfing etiquette, history, rules, and simple strategy. Two contact hours (activity).

PEL 1211 Softball (P) 1 cr.

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

PEL 1321 Volleyball (P) 1 cr.

This course teaches the fundamental skills, strategy and knowledge necessary for game and tournament participation. Two contact hours (activity).

PEL 1341 Beginning Tennis (P) 1 cr.

This introductory course covers the history, scoring, game strategy, and basic skills which include footwork, forehand and backhand drives, serve, volley and lob. Two contact hours (activity).

PEL 1342 Intermediate Tennis (P) 1 cr.

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

PEL 1346 Beginning Badminton (P) 1 cr.

This course covers the history, scoring, basic skills and game strategy of badminton. It also consists of appropriate class tournaments. Two contact hours (activity).

PEL 1511 Soccer (P) 1 cr.

This course introduces the student to the basic skills, techniques, rules, game play and knowledge of soccer. Two contact hours (activity).

PEL 1622 Advanced Basketball (P) 1 cr.

This course, designed to teach skills in basketball, includes instruction in offensive and defensive fundamentals, strategy, and rules as well as application in game situations. Two contact hours (activity).

PEL 2322 Advanced Volleyball (P) 1 cr.

This course introduces power volleyball techniques, tactics, and strategy to the student interested in either the competitive or recreational aspect of the game. Two contact hours (activity).

PEM – Physical Education Acts (General) – Performance Centered, Land

PEM 1101 Physical Conditioning (P) 1 cr.

This course, 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 set, dumbbell and wand drills, rope jumping, and running. Two contact hours (activity).

PEM 1109 Circuit Training (P) 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 1301 Track and Field Events (P) 1 cr.

The course includes an introduction to the basic skills and knowledge involved in sprinting, distance running, relays, and hurdling. Two contact hours (activity).

PEN – Physical Education Acts (General) – Water, Snow, Ice

PEN 1136 Underwater Diving Skills (SCUBA) (D) 3 cr.

Student must pass a swimming test prior to acceptance into the course and will benefit by taking MAT 0024 prior to enrolling in PEN 1136. The scientific study of underwater judgment, attitude, discipline and fitness leading to a Professional Association of Diving Instructors (PADI) certification. This course will stress the latest underwater diving techniques which will be used for making physical and biological collections in the field. The course will include all classroom and pool 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).

PEO – Physical Education Acts (Professional) – Object Centered, Land

PEO 2003 Sports Officiating (P) 3 cr.

This course, designed to acquaint the student with the techniques of officiating team, individual, and dual sports, covers baseball, basketball, track and field, volleyball, tennis, and handball. Three contact hours.

PET – Physical Education Theory

PET 2000 Introduction to Physical Education (P) 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.

PHI – Philosophy

PHI 2010 Introduction to Philosophy (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course consists of an introduction to philosophical issues organized, for the most part, on an historical basis. The student encounters some of the perennial problems of philosophy and the types of answers that have been suggested by studying the thought of selected philosophers. This course includes reading and writing competencies. Three contact hours.

PHI 2100 Introduction to Logic (P) 3 cr.

This course provides a general introduction to logic that combines approximately equal emphasis on the uses and misuses 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 (P) 3 cr.

Prerequisite: ENC 1101 or satisfactory score on placement test. This course is a survey of the efforts made by philosophers to comprehend that portion of experience that is concerned with human values and obligations. The course consists, primarily, of the analysis of selected writings in which philosophers attempt to do such things as characterize the most satisfactory life, specify the basis of moral responsibility, determine the test-ability of moral judgments, and assess the proper relation between the individual and the state. This course includes reading and writing competencies. Three contact hours.

PHY – Physics

PHY 1020 Physics for Liberal Arts (P) 3 cr.

The student will benefit by taking High School Algebra or MAT 0024 prior to enrolling in PHY 1020. This course is a general education course for the non-science student and not for one who is planning to major in physics or other sciences. It is a survey of the physical environment as applied to mechanics, electricity and magnetism and modern physics. Three contact hours.

PHY 2048C Physics I with Calculus (P) 4 cr.

Corequisite: MAC 1311. This course, designed for students majoring in physics, chemistry, and engineering with above-average mathematical background, includes mechanics, heat, thermodynamics, and waves (mechanical, sound, etc.). Laboratory work will illustrate important prin-

RET 2434 Arterial Blood Gases and Critical Care Monitoring (D) 2 cr.

Prerequisite: APB 1260. This course is designed to introduce the student to arterial blood gas analysis and various techniques of monitoring the critically ill patient. The course also includes the interpretation and clinical significance of the data gained from these monitoring techniques. Two contact hours.

RET 2714 Neonatal and Pediatric Respiratory Care (D) 3 cr.

Prerequisite: APB 1260 or permission of the professor. This course investigates fetal, neonatal, and pediatric differences in cardiopulmonary anatomy and physiology; pediatric ventilatory management and ventilatory equipment; neonatal and pediatric cardiopulmonary pathologies; and adaptations of respiratory care techniques to pediatric patients. Three contact hours.

RMI – Risk Management and Insurance

RMI 1030 Principles of Insurance (D) 3 cr.

This course will seek to develop principles that can be used in understanding insurance companies, contracts, and practices. The approach will be essentially functional. The course emphasizes the presentation principles and explanations of practices and presents methods of comparing the relative cost. (This course as taught on the Kent Campus prepares the student for the General Agent Examination. As taught on the South Campus, it prepares the student for the IIA Insurance Certificate). Three contact hours.

RMI 1110 Principles of Life Insurance I (D) 3 cr.

This course is an introduction to the principles of life insurance, the basic life insurance plans, and the more common types of individual life insurance contracts. It also includes a survey of industrial life insurance, health insurance and group life insurance, and it constitutes a general survey of the major kinds of personal insurance coverages available. Three contact hours.

RMI 1120 Principles of Health Insurance (O) 3 cr.

This introduction to health insurance covers health losses and protection, expense and income coverage, and health insurance, its growth, and many areas of coverage offered by government, commercial, and Blue Cross-Blue Shield organizations. Three contact hours.

RMI 1160 Marketing Principles of Life and Health Insurance (O) 3 cr.

This course presents a new approach toward the life and health insurance industry, its products, the market potential, and the industry as a selling career. Three contact hours.

RMI 1200 Principles of Casualty Insurance and Surety Bonding (D) 3 cr.

Prerequisite: RMI 1030. This course is an introduction to the eight areas of automobile liability and physical damage insurance, workmen's compensation and employers' liability insurance, business, professional and personal liability insurance; fidelity and surety bonds, theft coverages, multiple-line trends and coverages, health insurance, and miscellaneous casualty coverages. (This course as taught on the Fred H. Kent Campus prepares the student for the General Agent Examination. As taught on the South Campus, it prepares the student for the IIA Insurance Certificate). Three contact hours.

RMI 1210 Principles of Fire and Allied Lines (D) 3 cr.

Prerequisite: RMI 1030. This course is an introduction to the four areas of fire insurance, ocean marine and inland marine insurance and multiple-line coverage. For each of these four areas, specimen contracts are examined. The course covers each area with regard to the perils, property, losses, persons, locations, time and hazards. Three contact hours.

RMI 1260 Principles of Insurance and Liability Claim Adjusting (O) 3 cr.

This course which corresponds to Part II of the Insurance Institute of America course in Adjusting examines the principles and practices of adjusting liability claims. Three contact hours.

RMI 1280 Principles of Property Insurance Adjusting (O) 3 cr.

This course, an introduction to the general principles of insurance and property loss of adjusting, covers the following areas: risk and insurance, suretyship, risk management principles of law and the insurance transaction, the insurance contract-limitations on coverage and limitation on amount of loss, the procedure, investigation, and reports of adjustment of property losses, and estimations of business losses. Three contact hours.

RMI 1430 Legal Aspects of Life Insurance (O) 3 cr.

This course corresponds to Part III of the Life Office Management Association (LOMA) Insurance Education Program. The course is an up-to-date presentation of the law of life insurance contracts for the person whose principal interest is life insurance rather than law. Three contact hours.

RMI 1432 Life Company Operations (O) 3 cr.

This course corresponds to Part II of the Life Office Management Association (LOMA) Insurance Education Program. The course covers life insurance home office organization, regulation, taxation, and mathematical aspects, as well as the marketing and investment functions. Three contact hours.

RMI 2270 Liability Insurance Adjusting (O) 3 cr.

This course covers the concepts of legal duty, breach of legal duty, and concepts of damages. The course also introduces medical knowledge needed by adjusters, as well as the adjuster-lawyer and adjuster-physician relationships, and the settlement of workmen's compensation claims. Three contact hours.

RMI 2281 Property Insurance Adjusting (O) 3 cr.

This course covers in more depth than previous courses in the program the subject of appointment, insurable interest, limitation on insurer's liability, and estimating. The course gives special consideration to adjustment of building, merchandise and fixture losses, and business interruption insurance losses. The student should have a knowledge of the subject matter of RMI 1280 and RMI 1260 before taking this course. Three contact hours.

RMI 2750 Life Insurance Accounting (O) 3 cr.

This course corresponds to Part IV of the Life Office Management Association (LOMA) Insurance Education Program. This course covers the principles of bookkeeping and accounting as an aid in understanding the life insurance accounting practices. Three contact hours.

RA 26

RTV – Radio – Television**RTV 2001C Introduction to Broadcasting (P) 3 cr.**

This course consists of an introduction to the historical, cultural, social, legal, business and career aspects of radio and television broadcasting plus an introduction to the types and sub-types of broadcast media. Five contact hours; three lecture hours; two laboratory hours.

RTV 2200C An Introduction to Television Production (D) 3 cr.

The course provides an opportunity for students to become familiar with 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.

RTV 2206C Broadcast Direction (D) 3 cr.

Prerequisite: RTV 2200C. This course, a continuation of RTV 2200C, is intended for broadcast majors. Major topic is the direction of TV programs. Four contact hours; two lecture hours; two laboratory hours.

RUS – Russian Language**RUS 1100 Beginning Russian I (P) 3 cr.**

This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition. The course employs visual and auditory aids. Four contact hours; three lecture hours; one unsupervised laboratory hour.

RUS 1101 Beginning Russian II (P) 3 cr.

Prerequisite: RUS 1100 or equivalent. This course is a continuation of RUS 1100. Four contact hours; three lecture hours; one unsupervised laboratory hour.

SLS – Student Life Skills**SLS 1223 Stress in Today's Society (P) 3 cr.**

This course, designed to acquaint the student with the nature and scope of stress in today's society, examines the causes and methods of prevention from a lay perspective. The course also discusses general environmental and social stressors which affect all people to some 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 (P) 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 attitudes. One contact hour.

SOP – Social Psychology**SOP 1002 Human Relations (P) 3 cr.**

Drawing from several areas of behavioral science, this course, designed for students in business and technical fields, is also suitable for general education and personal enrichment, but not recommended for the student who plans to major in psychology. The course includes group dynamics, leadership, ethics, motivation, and morale, social systems, formal and informal organizations; and other selected topics. Three contact hours.

SOP 1502 Dynamics of Behavior (P) 3 cr.

This course consists of the study of individual behavior and how it is influenced by culture. This course emphasizes per-

sonal adjustment and individual development as they relate to interaction with other people. Three contact hours.

SPA – Speech Pathology and Audiology**SPA 1336 Manual Communications I (D) 3 cr.**

This course will provide the student with the vocabulary to communicate with hearing-impaired individuals. Upon conclusion of this course, the student will have acquired the ability to use the Manual Alphabet and approximately 1,200 signs. With emphasis on expressive skills, methodology will be basically laboratory in nature; students will devote most classroom work to practice in and reinforcement of correct hand configurations and positions. Three contact hours.

SPA 1337 Manual Communications II (D) 3 cr.

This course, a continuation of SPA 1336, will present American Sign Language (Ameslan), which is the idiomatic and "dialectic" language used by the hearing impaired. The student will learn specialized sentence structure, grammar, and usage of this language. The course will include dialogues with hearing-impaired students and will emphasize receptive skills. Three contact hours.

SPC – Speech Communication**SPC 1010 Fundamentals of Speech Communication (P) 3 cr.**

Prerequisite: satisfactory score on placement test. This essential course in speaking and listening skills instructs students in the principles and procedures that promote effective communication. This study includes message composition involving idea and information acquisition, determination of purpose, and analysis of audience. This course also includes message transmittal involving vocal variations, articulation and appropriate levels of language usage, and listening for both literal and critical comprehension. Three contact hours.

SPC 2420 Small Group Communication (P) 3 cr.

This course emphasizes the development of discussion skills in four areas: (1) the formats of discussion; (2) the means of discussion, reasoning, evidence and cooperative idea development; (3) both leadership and participation conduct; (4) audience analysis and listening techniques. Three contact hours.

SPC 2594 Intercollegiate Debate (P) 1 cr.

Prerequisite: consent of professor. This course consists of the analysis of proposition of fact, policy and definition; library research methods, formal debate structure and participation in intercollegiate debate. Three contact hours (studio/rehearsal).

SPN – Spanish Language**SPN 1100 Beginning Spanish I (P) 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 (P) 3 cr.

Prerequisite: SPN 1100 or equivalent. This course is a continuation of SPN 1100. Four contact hours. Three class hours; and one unsupervised laboratory hour.

SLS 1930 *Student Success*
SOP

SPN 2200 Intermediate Spanish I (P) 3 cr.
Prerequisite: SPN 1101. This course integrates a thorough review of the principles of grammar with compositions and conversations planned to develop a basic active vocabulary and facility in communicating in written and spoken Spanish. The student will study readings in the history and culture of Spain and Hispanic America. Four contact hours: three lecture hours; one unsupervised laboratory hour.

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

SSI – Social Sciences, Interdisciplinary

SSI 1110 Origins of American Society (Culture, Primary Institutions and Personal Adjustments) (P) 3 cr.
This course examines the mainsprings of the civilization of the United States and relates America's values, institutions, and ideals to both her domestic situation and to her leadership in the world through the historical approach. Emphasis is on the concept of culture, the genesis of American society, and the growth of primary institutions. Three contact hours.

SSI 1120 Origins of American Society (Economic, Political and International Institutions) (P) 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. Three contact hours.

STA – Statistics

STA 1014 Elementary Statistics (P) 3 cr.
Prerequisite: MAC 1104, with a grade of C or better. This is an introductory course which includes the following topics: probability, random variables and probability distributions, binomial and normal distribution, statistical inference, linear regression and correlation, variance, and inference from small samples. Also included is a module on logic and computer literacy which must be covered by the student independently of class time to meet the college-level skills requirement. Three contact hours.

SUR – Surveying: Related Areas

SUR 1101C Surveying I (D) 3 cr.
Prerequisites: MAC 1114, ETD 1100C. The course is a study of the fundamentals of surveying with emphasis on distance measurement, levelling, 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 (D) 3 cr.
Prerequisite: SUR 1101C. The 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 astronomy, and curves. 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 (P) 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 2010 Social Problems (P) 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 (P) 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 (O) 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 supplemental forms. Three contact hours.

TAX 2010 Corporate, Estate and Trust Taxes (O) 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.

THE – Theatre

THE 1000 Introduction to Theatre (P) 3 cr.
Prerequisite: ENC 1101 or satisfactory score 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.

THE 2925 Drama Practicum (P) 1 cr.
This course consists of the planning and execution of production functions; scene construction and painting, props, costuming, lighting and other full technical responsibilities. This course includes writing competencies. Three contact hours (studio/rehearsal).

TRA – Transportation

TRA 1010 Principles of Transportation (D) 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 (D) 3 cr.
This course covers developments leading to national legislation and federal regulation; division of territories, official descriptions, etc.; scope of authority of territorial associations; factors controlling traffic flows, basis governing clas-

sification 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 (D) 3 cr.

This course covers analysis of carrier's liability for goods, rights, and liabilities of carriers, consignees, and consignors; claim procedures, claim and government regulation. Three contact hours.

TRA 1100 Transportation and Traffic Management II (D) 3 cr.

This continuing course in transportation and traffic management includes the application of tariff circulars; construction and filing of tariffs (tariff compilation); freight rates and tariffs, special freight services, i.e., switching, terminal facilities, demurrage and storage, average agreement, reconsignment and diversion, various transit privileges; embargoes; 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 Rate Clerk (D) 3 cr.

This basic course in tariffs and rate structures includes descriptions of rate territories, how various freight is classified by each mode of transportation, and how to apply applicable tariffs. This course instructs new rate clerks in selection of lowest costs that will provide required shipping service. Also included are rules of tariffs, rate making procedures, and use of shipping documents. Three contact hours.

TRA 1230 Material Handling (D) 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 1420 Commercial Motor Transportation (D) 3 cr.

This course is a general introduction to commercial motor operations, highway and highway financing, equipment, types of operations, financing motor carriers, labor relations, terminal operation, claims, insurance, classification, rates, regulations of motor carriers, commission policy, intercity passenger operations, urban mass transit, and economics of commercial motor transportation. Three contact hours.

TRA 1905 Independent Study of Transportation (D) 3 cr.

This course introduces the student to the ever broadening area of transportation literature and causes the student to report the student's findings after a careful study and research into an area of personal interest. The student must use acceptable thesis procedures. Three contact hours.

TRA 2020 Economics of Transportation (D) 3 cr.

This course covers developments 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 problem regulation. Completion of this course partially covers requirements for certification by the American Society of Transportation & Traffic. Three contact hours.

TRA 2110 Transportation and Traffic Management III (D) 3 cr.

This course is a continuation of Transportation & Traffic Management I and II and covers through routes and through rates, application of arbitrations and differentials,

advanced milling in transit, import and export traffic, technical tariff and rate interpretation, advanced claim adjustments, and rate and classification committee procedures. Completion of this course partially covers requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 2120 Transportation and Traffic Management IV (D) 3 cr.

This course is a continuation of Transportation & Traffic Management I, II and III and covers a general discussion of the construction and application of the Interstate Commerce Act and practice before the Interstate Commerce Commission. Completion of this course partially covers requirements for certification by the College of Advanced Traffic. Three contact hours.

TRA 2300 Interstate Commerce Act I (D) 3 cr.

This course covers the history and development of transportation in the United States, problems which led to the regulation of commerce through legislative action, underlying principles of the Act, interpretation and application of the Interstate Commerce Act. Three contact hour.

TRA 2310 Interstate Commerce Act II (D) 3 cr.

This course is a continuation of Interstate Commerce Act I, that provides an in-depth study of the Act, to include areas of jurisdiction, meanings and interpretations of the Act, methods used to enforce the Act, contracts and agreements among carriers-shippers, carriers tariff, liability, statute of limitations, rate classification, and regulations. Three contact hours.

TRA 2311 Interstate Commerce Law and Practice (D) 3 cr.

This course considers all aspects of interstate commerce law and practice. Topics include review of Interstate Commerce Act, general rules and practice, Interstate Commerce Commission, and Supreme Court cases. Three contact hours.

TRA 2312 Interstate Commerce Act III (D) 3 cr.

Prerequisite: TRA 2300, TRA 2310. This course is a continuation of Interstate Commerce Act I & II. Topics include formal and informal complaints, general conduct of hearings, developing facts of case, compulsory testimony, immunity of witnesses, briefs, oral arguments, and report of the commission. Three contact hours.

TRA 2313 Interstate Commerce Act IV (D) 3 cr.

Prerequisite: TRA 2300, TRA 2310, TRA 2312. This course is a continuation of Interstate Commerce Act III. Topics include a review of previous material, measure of damages, statutory authority, evidence to prove damage, discrimination, and issuance and preparation of the student's personal application to take the Practitioner Examination. Three contact hours.

ZOO - Zoology

ZOO 1010C General Zoology (P) 4 cr.

The student will benefit by taking APB 1150 or BSC 1011C or High School Biology prior to enrolling in ZOO 1010C. This is a survey of the animal kingdom with emphasis on taxonomy, life cycles, evolution, organ systems, and phylogenetic relationships. A representative of each of the major groups will be discussed and investigated. Six contact hours: three lecture hours, three laboratory hours.

ZOO 2713C Comparative Anatomy (P) 4 cr.

Prerequisite: ZOO 1010C. This course consists of a comprehensive survey of the anatomy of chordates with emphasis on the functional morphology of vertebrates, including the dissection and study of preserved specimens of lamprey,

dogfish, yellow perch, mud puppy, pigeon and cat. Six contact hours: three lecture hours; three laboratory hours.

Special Series Courses

Cooperative Education

COE 1000 Cooperative Education Seminar (P) 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 (P) 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 (P) 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.

Continuing Education Information

Admissions

All persons registering at Florida Junior College at Jacksonville must have a social security number and will be required to present the social security card at each registration. Persons not having a social security number should contact the local Social Security Office for an application to obtain a number.

An individual desiring to enroll in Continuing Education (non-college credit) programs should contact the administrator of the center or the campus offering the desired subjects and may be admitted if the following eligibility requirements are met:

1. Be an adult – by Florida State Board Rule 6A-6.11, at least 16 years of age.
2. Present Social Security card.
3. Furnish proof of age, if asked.
4. Complete the admission and registration forms requested.
5. Meet special admission criteria, if any.

Certain Continuing Education occupational programs, such as Practical Nursing, have selective admission criteria. After appropriate advising, a student may enroll in a program with no special admission criteria. After completing approximately one-fourth of the program, students will be considered for formal admission into the program.

Non-resident aliens may enroll in Continuing Education classes; however, Florida Junior College at Jacksonville will not issue immigration papers based on this enrollment.

Students wishing enrollment certification for educational benefits must be admitted to and be enrolled full-time in the diploma-seeking high school program (20 clock hours per week minimum) or vocational program (30 clock hours per week minimum).

Registration Periods

Continuing Education registration periods for any term shall begin and end on dates specified by the president. Registration dates will vary by program category and campus and may be continuous throughout any term. The terms will be Fall, Winter, and Summer.

Schedule Changes

Schedule changes, commonly known as add-drop, will be allowed for high school and career advancement courses only in accordance with the schedule established by the registrar each term. Schedule changes will not be allowed for all other Continuing Education courses.

Transcript Requests

Upon request of the student, the college will provide to the student, or to a person or institution desig-

nated by the student, an official transcript of the student's academic record. Transcript requests may be made in person or in writing to the Campus Registration Office. No transcript request will be accepted by telephone.

NO TRANSCRIPT REQUEST WILL BE PROCESSED UNTIL ALL FINANCIAL OBLIGATIONS TO THE COLLEGE ARE CLEAR

Students are advised to make requests approximately two weeks before the transcript is needed.

Awards for Program/ Course Completion

Three types of certificates are awarded to students in recognition of completion of program and/or course competency requirements.

Certificate of Applied Science

The Certificate of Applied Science is awarded to students who have enrolled in and satisfactorily completed the requirements for a one-year vocational competency-based program of study in preparation for employment. The area or areas of competencies completed by the student are indicated on the certificate. Before a student may receive this certificate, the student must have fulfilled all financial obligations to the college.

Certificate of Training

The Certificate of Training is awarded to students who have enrolled in and satisfactorily completed competencies in a vocational program of study of one term (semester) or less in preparation for employment. The program completed by the student is indicated on the certificate. Before a student may receive this certificate, the student must have fulfilled all financial obligations to the college.

Certificate of Attendance

This is a general purpose type of certificate used to verify the attendance of an individual in a course, seminar, or workshop-type activity. Attainments of an individual in these instructional activities may be indicated on the certificate as prescribed by the requirements of the activity.

Continuing Education Units (CEU)

Many courses award Continuing Education Units. The CEU system provides for one unit to be awarded for every 10 clock hours of instruction. A record of courses taken and CEU's earned will be maintained by the college. A student may obtain a copy of the record or have a copy mailed to a person of the student's choice by requesting such in writing in the Campus Registration Office.

Financial Information

Student Fees and Tuition Occupational Education

Continuing Education Registration Fees*

Course	Course Fees*		Course	Course Fees*	
	Florida* Residents	Non-Florida* Residents		Florida* Residents	Non-Florida* Residents
ACC 0030C	\$ 25.00	\$ 25.00	BDP 0072	15.00	15.00
ACC 0120C	25.00	25.00	BDP 0075C	25.00	25.00
ACC 0131	35.00	70.00	BDP 0085	15.00	15.00
ABF 0109N	45.00	90.00	BDP 0090	15.00	15.00
ABF 0109R	90.00	180.00	BDP 0300	350.00	700.00
ABF 0110N	45.00	90.00	BDP 0810	10.00	10.00
ABF 0110R	90.00	180.00	BDP 0820	10.00	10.00
ABF 0111N	45.00	90.00	BDP 0830	10.00	10.00
ABF 0111R	90.00	180.00	BDP 0840	10.00	10.00
ACT 0309N	45.00	90.00	BDP 0850	10.00	10.00
ACT 0309R	90.00	180.00	BLR 0390F	55.00	55.00
ACT 0310N	45.00	90.00	CAP 0309N	45.00	90.00
ACT 0310R	90.00	180.00	CAP 0309R	90.00	180.00
ACT 0311N	45.00	90.00	CAP 0310N	45.00	90.00
ACT 0311R	90.00	180.00	CAP 0310R	90.00	180.00
AIC 0003C	55.00	55.00	CAP 0311N	45.00	90.00
AIC 0315A	60.00	120.00	CAP 0311R	90.00	180.00
AIC 0315B	65.00	130.00	CAP 0315A	60.00	120.00
AIC 0315C	70.00	140.00	CAP 0315B	65.00	130.00
AIC 0315D	70.00	140.00	CAP 0315C	80.00	160.00
AIC 0315E	80.00	160.00	CAP 0315E	70.00	140.00
AIM 0010A	25.00	25.00	CAP 0315G	75.00	150.00
AIM 0012A	25.00	25.00	CAP 0395M	55.00	55.00
AIM 0014A	25.00	25.00	CEQ 0115A	60.00	120.00
AIO 0020A	25.00	25.00	CEQ 0115B	65.00	130.00
AIO 0024A	25.00	25.00	CEQ 0115C	70.00	140.00
APC 0011B	25.00	25.00	CEQ 0115D	75.00	150.00
APC 0221C	45.00	90.00	CEQ 0115F	80.00	160.00
ARR 0308N	45.00	90.00	CGC 0011E	35.00	70.00
ARR 0308R	90.00	180.00	CGC 0015A	25.00	25.00
ARR 0309N	45.00	90.00	CGC 0020A	25.00	25.00
ARR 0309R	90.00	180.00	CGC 0025A	25.00	25.00
ARR 0310N	45.00	90.00	CGC 0030	5.00	5.00
ARR 0310R	90.00	180.00	CHD 0100D	35.00	35.00
AUM 0003C	55.00	55.00	CHD 0103	15.00	15.00
AUM 0200	40.00	40.00	CJD 0201	25.00	25.00
AUM 0309N	45.00	90.00	CJD 0491	25.00	25.00
AUM 0309R	90.00	180.00	CJT 0310	25.00	25.00
AUM 0310N	45.00	90.00	CJT 0312	5.00	5.00
AUM 0310R	90.00	180.00	CJT 0313	5.00	5.00
AUM 0311N	45.00	90.00	CJT 0421	15.00	15.00
AUM 0311R	90.00	180.00	CJT 0422	5.00	5.00
AUM 0395M	55.00	55.00	CLT 0114A	10.00	10.00
BCN 0010F	25.00	25.00	CLT 0312A	10.00	10.00
BCN 0315A	60.00	120.00	CLT 0312G	20.00	20.00
BCN 0315B	65.00	130.00	CLT 0313B	10.00	10.00
BCN 0315C	80.00	160.00	CLT 0313G	20.00	20.00
BCN 0315E	70.00	140.00	CLT 0320	35.00	70.00
BCN 0315F	75.00	150.00	CLT 0330A	5.00	5.00
BDP 0010P	55.00	110.00	CMP 0506E	35.00	70.00
BDP 0070C	25.00	25.00	CMP 0510C	25.00	25.00

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Course	Course Fees*		Course	Course Fees*	
	Florida* Residents	Non-Florida* Residents		Florida* Residents	Non-Florida* Residents
CMP 0510G	20.00	20.00	ENG 0007C	4.00	8.00
CMP 0512A	10.00	10.00	ENG 0008C	4.00	8.00
CMP 0515B	50.00	50.00	ENG 0010C	4.00	8.00
CMP 0516C	50.00	50.00	ENG 0015B	4.00	8.00
CMP 0517B	25.00	25.00	ENG 0016	4.00	8.00
CMP 0518	15.00	15.00	ENG 0017C	4.00	8.00
CMP 0520C	50.00	50.00	ENG 0018	4.00	8.00
CMP 0525	15.00	15.00	ENG 0021	4.00	8.00
CMP 0530A	5.00	5.00	ENG 0022	4.00	8.00
COR 0418T	120.00	240.00	ENR 0003C	55.00	55.00
COR 0426D	35.00	35.00	ENR 0050A	25.00	25.00
COY 0309N	165.00	330.00	ENR 0309N	45.00	90.00
COY 0309R	85.00	170.00	ENR 0309R	90.00	180.00
COY 0310N	165.00	330.00	ENR 0310N	45.00	90.00
COY 0310R	85.00	170.00	ENR 0310R	90.00	180.00
COY 0311N	165.00	330.00	ENR 0311N	45.00	90.00
COY 0311R	85.00	170.00	ENR 0311R	90.00	180.00
DES 0010	10.00	10.00	FAR 0012A	15.00	15.00
DES 0020	15.00	15.00	FCR 0410C	25.00	25.00
DES 0030	20.00	20.00	FCR 0411C	25.00	25.00
DIM 0050A	40.00	40.00	FCR 0412C	25.00	25.00
DIM 0109A	55.00	55.00	FCR 0413B	25.00	25.00
DIM 0390F	80.00	80.00	FCR 0415A	50.00	100.00
DRA 0001C	4.00	8.00	FCR 0420B	15.00	15.00
DRA 0002	4.00	8.00	FCR 0421C	25.00	25.00
DRT 0101C	4.00	8.00	FCR 0423C	25.00	25.00
ECP 0001	4.00	8.00	FCR 0424C	25.00	25.00
ECY 0001C	4.00	8.00	FCR 0426C	25.00	25.00
EER 0001	25.00	25.00	FCR 0427B	25.00	25.00
EER 0005	25.00	25.00	FCR 0431C	25.00	25.00
EER 0010	20.00	20.00	FCR 0432C	25.00	25.00
EER 0015	30.00	30.00	FCR 0433C	25.00	25.00
EER 0020	45.00	45.00	FCR 0436C	25.00	25.00
EER 0025	25.00	25.00	FCR 0440B	15.00	15.00
EER 0030	25.00	25.00	FCR 0500	35.00	35.00
EER 0035	20.00	20.00	FCR 0510	35.00	35.00
EER 0040	45.00	45.00	FFP 0005	110.00	220.00
ELS 0112C	50.00	50.00	FFP 0740	10.00	10.00
ELS 0115A	30.00	30.00	FFP 0741	5.00	5.00
ELS 0119B	50.00	50.00	FIF 0310N	20.00	20.00
ELS 0120D	50.00	50.00	FIF 0415H	35.00	35.00
ELS 0309N	45.00	90.00	FIF 0418N	20.00	20.00
ELS 0309R	90.00	180.00	FIF 0419N	20.00	20.00
ELS 0310N	45.00	90.00	FIF 0424N	20.00	20.00
ELS 0310R	90.00	180.00	FMC 0311C	25.00	25.00
ELS 0311N	45.00	90.00	FMC 0312C	25.00	25.00
ELS 0311R	90.00	180.00	FMC 0321	35.00	70.00
ELS 0390M	55.00	55.00	FMD 0390F	55.00	55.00
EMS 0065	5.00	5.00	FMD 0395A	55.00	55.00
EMS 0119	50.00	50.00	FON 0003C	20.00	20.00
EMS 0120	35.00	35.00	FON 0007A	35.00	35.00
EMS 0340	15.00	15.00	FON 0010A	5.00	5.00
EMS 0381	20.00	20.00	FON 0020A	15.00	15.00
EMS 0391	30.00	30.00	FON 0109Y	35.00	35.00
EMS 0395	20.00	20.00	FON 0110A	35.00	35.00
EMS 0731	15.00	15.00	FRE 0001A	4.00	8.00
ENG 0001C	4.00	8.00	FRE 0002	4.00	8.00
ENG 0006C	4.00	8.00	FSM 0312C	50.00	50.00

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Course	Course Fees*		Course	Course Fees*	
	Florida* Residents	Non-Florida* Residents		Florida* Residents	Non-Florida* Residents
FSM 0314C	110.00	220.00	INS 0229B	20.00	20.00
FSM 0317Y	35.00	35.00	INS 0230B	20.00	20.00
FSM 0320Y	35.00	35.00	INS 0231B	20.00	20.00
FSM 0510C	35.00	35.00	INS 0232B	20.00	20.00
FSM 0514C	50.00	50.00	INS 0233B	20.00	20.00
FSM 0518B	25.00	25.00	INS 0234B	20.00	20.00
FSM 0521X	65.00	130.00	INS 0235B	20.00	20.00
FSM 0525A	15.00	15.00	INS 0236B	20.00	20.00
GEO 0001C	4.00	8.00	INS 0237B	20.00	20.00
GER 0001A	4.00	8.00	INS 0255B	20.00	20.00
GMR 0310C	50.00	100.00	INS 0256B	20.00	20.00
GRA 0310N	85.00	170.00	ITA 0001B	4.00	8.00
HEF 0101C	50.00	50.00	LAE 0310T	200.00	400.00
HEF 0103E	35.00	70.00	LAE 0416A	35.00	35.00
HEF 0104B	25.00	25.00	LAE 0417H	55.00	55.00
HEF 0105C	25.00	25.00	LAE 0422F	35.00	35.00
HEF 0310A	65.00	65.00	LAE 0525T	35.00	35.00
HEF 0312B	105.00	105.00	LAE 0526A	35.00	35.00
HEF 0312C	65.00	65.00	LAE 0527D	80.00	80.00
HEF 0313F	105.00	105.00	LAW 0002	4.00	8.00
HEN 0060	4.00	8.00	LIT 0014C	4.00	8.00
HEN 0061	4.00	8.00	LIT 0015C	4.00	8.00
HIS 0004C	4.00	8.00	LIT 0016C	4.00	8.00
HIS 0005C	4.00	8.00	MAM 0010C	25.00	25.00
HOF 0001B	35.00	35.00	MAM 0012C	25.00	25.00
HOF 0002B	20.00	20.00	MAM 0014A	25.00	25.00
HOF 0003	5.00	5.00	MAM 0014B	35.00	35.00
HOF 0005A	20.00	20.00	MAM 0014E	50.00	50.00
HOF 0010A	5.00	5.00	MAM 0014H	70.00	70.00
HUM 0004	4.00	8.00	MAM 0014J	105.00	105.00
HUM 0005	4.00	8.00	MAM 0014K	140.00	140.00
IDS 0010	20.00	40.00	MAM 0014Q	15.00	15.00
IDS 0010N	10.00	20.00	MAM 0014R	10.00	10.00
IDS 0011	20.00	40.00	MAM 0014S	15.00	15.00
IDS 0011N	10.00	20.00	MAM 0014V	20.00	20.00
IDS 0012	20.00	40.00	MAM 0014Z	25.00	25.00
IDS 0012N	10.00	20.00	MAM 0020A	55.00	55.00
IEL 0309N	45.00	90.00	MAT 0001C	4.00	8.00
IEL 0309R	90.00	180.00	MAT 0002C	4.00	8.00
IEL 0310N	45.00	90.00	MAT 0003C	4.00	8.00
IEL 0310R	90.00	180.00	MAT 0004C	4.00	8.00
IEL 0311N	45.00	90.00	MAT 0005C	4.00	8.00
IEL 0311R	90.00	180.00	MAT 0007C	4.00	8.00
IEL 0315A	60.00	120.00	MAT 0008C	4.00	8.00
IEL 0315B	65.00	130.00	MAT 0008X	4.00	8.00
IEL 0315C	80.00	160.00	MAT 0009A	4.00	8.00
IEL 0315D	70.00	140.00	MAT 0011C	4.00	8.00
IEL 0315E	75.00	150.00	MAT 0012A	4.00	8.00
IEL 0317A	60.00	120.00	MAY 0312F	55.00	55.00
IEL 0317B	65.00	130.00	MAY 0315A	60.00	120.00
IEL 0317C	80.00	160.00	MAY 0315B	65.00	130.00
IEL 0317D	70.00	140.00	MAY 0315C	70.00	140.00
IEL 0317E	75.00	150.00	MAY 0315D	75.00	150.00
INM 0010A	85.00	85.00	MEA 0310R	370.00	740.00
INS 0210B	25.00	25.00	MKA 0010A	25.00	25.00
INS 0220B	20.00	20.00	MLS 0803	10.00	10.00
INS 0226C	20.00	20.00	MLS 0930	15.00	15.00
INS 0228B	20.00	20.00	MSH 0003C	55.00	55.00

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192 CONTINUING EDUCATION – FINANCIAL INFORMATION

Course	Course Fees*		Course	Course Fees*	
	Florida* Residents	Non-Florida* Residents		Florida* Residents	Non-Florida* Residents
MSH 0309N	45.00	90.00	MTE 0930	35.00	35.00
MSH 0309R	90.00	180.00	MTE 0932	20.00	20.00
MSH 0310N	45.00	90.00	MTE 0934	40.00	40.00
MSH 0310R	90.00	180.00	MTE 0936	70.00	70.00
MSH 0311N	45.00	90.00	MTE 0938	25.00	25.00
MSH 0311R	90.00	180.00	MTE 0940	40.00	40.00
MSH 0318N	45.00	90.00	MTE 0942	20.00	20.00
MSH 0318R	90.00	180.00	MTE 0944	15.00	15.00
MSH 0319N	45.00	90.00	MTE 0946	15.00	15.00
MSH 0319R	90.00	180.00	MTE 0948	65.00	65.00
MSH 0320N	45.00	90.00	MTE 0950	20.00	20.00
MSH 0320R	90.00	180.00	MTE 0952	20.00	20.00
MSH 0390F	55.00	55.00	MTE 0954	20.00	20.00
MTE 0006N	65.00	130.00	MTE 0956	10.00	10.00
MTE 0006R	125.00	250.00	MTE 0958	20.00	20.00
MTE 0017N	35.00	70.00	MTE 0960	50.00	50.00
MTE 0017R	65.00	130.00	MTE 0962	25.00	25.00
MTE 0018N	35.00	70.00	MTE 0966	35.00	35.00
MTE 0018R	65.00	130.00	MTE 0968	35.00	35.00
MTE 0028N	35.00	70.00	MTE 0970	20.00	20.00
MTE 0028R	65.00	130.00	MTE 0972	35.00	35.00
MTE 0029N	35.00	70.00	MTE 0974	20.00	20.00
MTE 0029R	65.00	130.00	MTR 0082	50.00	50.00
MTE 0036N	35.00	70.00	MTR 0085	75.00	75.00
MTE 0036R	65.00	130.00	MTR 0101	25.00	25.00
MTE 0037N	35.00	70.00	MTR 0105	25.00	25.00
MTE 0037R	65.00	130.00	MTR 0122	40.00	40.00
MTE 0048N	35.00	70.00	MTR 0123	40.00	40.00
MTE 0048R	65.00	130.00	MTR 0124	40.00	40.00
MTE 0049N	35.00	70.00	MTR 0126	40.00	40.00
MTE 0049R	65.00	130.00	MTR 0144	75.00	75.00
MTE 0058N	35.00	70.00	MTR 0146	40.00	40.00
MTE 0058R	65.00	130.00	MTR 0147	40.00	40.00
MTE 0059N	35.00	70.00	MTY 0390F	55.00	55.00
MTE 0059R	65.00	130.00	MTY 0395F	55.00	55.00
MTE 0069N	35.00	70.00	MUS 0007A	4.00	8.00
MTE 0069R	65.00	130.00	NUA 0310R	85.00	170.00
MTE 0070N	35.00	70.00	NUR 0512A	15.00	15.00
MTE 0070R	65.00	130.00	NUR 0512B	90.00	90.00
MTE 0090N	35.00	70.00	ORH 0010A	20.00	20.00
MTE 0090R	65.00	130.00	ORI 0002	4.00	8.00
MTE 0091N	35.00	70.00	PAD 0010A	20.00	20.00
MTE 0019R	65.00	130.00	PDE 0317A	60.00	120.00
MTE 0900	50.00	50.00	PDE 0317B	65.00	130.00
MTE 0902	20.00	20.00	PDE 0317C	70.00	140.00
MTE 0904	35.00	35.00	PDE 0317D	75.00	150.00
MTE 0906	20.00	20.00	PDE 0317F	80.00	160.00
MTE 0908	35.00	35.00	PHS 0001C	4.00	8.00
MTE 0910	20.00	20.00	PHS 0003C	4.00	8.00
MTE 0912	35.00	35.00	PHS 0004C	4.00	8.00
MTE 0914	20.00	20.00	POS 0003C	4.00	8.00
MTE 0916	20.00	20.00	POS 0004C	4.00	8.00
MTE 0918	50.00	50.00	POS 0005C	4.00	8.00
MTE 0920	50.00	50.00	POS 0008	4.00	8.00
MTE 0922	25.00	25.00	PPF 0309N	45.00	90.00
MTE 0924	35.00	35.00	PPF 0309R	90.00	180.00
MTE 0926	35.00	35.00	PPF 0310N	45.00	90.00
MTE 0928	50.00	50.00	PPF 0310R	90.00	180.00

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Course	Course Fees*		Course	Course Fees*	
	Florida* Residents	Non-Florida* Residents		Florida* Residents	Non-Florida* Residents
PPF 0311N	45.00	90.00	SLS 0006	20.00	20.00
PPF 0311R	90.00	180.00	SLS 0335	10.00	10.00
PPF 0315A	60.00	120.00	SLS 0336	20.00	20.00
PPF 0315B	65.00	130.00	SOC 0002	4.00	8.00
PPF 0315C	80.00	160.00	SPA 0001A	4.00	8.00
PPF 0315D	70.00	140.00	SPA 0002C	4.00	8.00
PPF 0315E	75.00	150.00	STO 0310R	370.00	740.00
PPF 0390F	55.00	55.00	STS 0020C	25.00	25.00
PPF 0395F	55.00	55.00	STS 0110B	25.00	25.00
PRN 0310R	450.00	900.00	STS 0112C	25.00	25.00
PSY 0050	4.00	8.00	STS 0113B	25.00	25.00
PTR 0010C	10.00	10.00	STS 0135C	25.00	25.00
PTR 0015A	25.00	25.00	STS 0140C	25.00	25.00
PTY 0312C	50.00	50.00	STS 0309N	45.00	90.00
RES 0211C	35.00	70.00	STS 0309R	90.00	180.00
RMI 0110	15.00	30.00	STS 0310N	45.00	90.00
ROO 0317A	60.00	120.00	STS 0310R	90.00	180.00
ROO 0317B	65.00	130.00	STS 0311N	45.00	90.00
ROO 0317C	70.00	140.00	STS 0311R	90.00	180.00
ROO 0317D	75.00	150.00	TYG 0102	4.00	8.00
RTE 0010A	35.00	35.00	TYG 0110B	20.00	40.00
SAM 0010B	25.00	25.00	TYG 0112C	25.00	25.00
SEM 0010A	20.00	20.00	WEL 0309N	45.00	90.00
SEO 0210D	25.00	50.00	WEL 0309R	90.00	180.00
SHM 0315A	60.00	120.00	WEL 0310N	45.00	90.00
SHM 0315B	65.00	130.00	WEL 0310R	90.00	180.00
SHM 0315C	70.00	140.00	WEL 0311N	45.00	90.00
SHM 0315D	75.00	150.00	WEL 0311R	90.00	180.00
SHM 0315F	80.00	160.00	WEL 0390C	105.00	105.00
SHM 0390F	55.00	55.00			

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Professional Malpractice and Liability Insurance Risk Coverage Fees

Continuing Education Courses	Per Course
Cosmetology COY 0309, 0310, 0311.....	\$ 5.00
Medical Assisting MEA 0310.....	\$ 7.00
Nurse Assistant NUA 0310.....	\$ 4.00
Practical Nurse PRN 0310.....	\$14.00
Surgical Technician STO 0310.....	\$ 7.00
Emergency Medical Care EMS 0119.....	\$ 7.00
Accident Insurance Risk Coverage Fee	
Fire Fighter Min Std. Course FFP 0005.....	\$ 4.00

The Risk Coverage Fee is non-refundable, if the student withdraws after the official close of the drop/add period for the term.

Student Fees and Tuition Adult Continuing Education

Students who register for Adult Continuing Education courses, seminars or workshops (includes 1.3200, and 1.4200), shall be charged the fee authorized.

Registration Fees

All Recreational and Enrichment Courses \$1.50 per contact hour per course.

EXCEPT:

Applied Music I	MUS 0816A	\$ 60.00
Applied Music I,SP	MUS 0816B	\$ 36.00
Applied Music II	MUS 0817A	\$ 90.00
Applied Music II,SP	MUS 0817B	\$ 54.00
Applied Music III	MUS 0819A	\$120.00
Applied Music III	MUS 0819B	\$ 70.00
Fine Arts Enrichment Center Summer Program	LEI 0810	\$100.00
Fundamentals of Dance	PEA 0835	\$ 30.00
Group Music Instruction	MUS 0821	\$ 24.00
Introduction to Theatre for Children	DRA 0812	\$ 30.00
Microwave Cooking	FON 0103C	\$ 25.00
Music Readiness I	MUS 0814	\$ 23.00
Music Readiness II	MUS 0815	\$ 10.00
Musicianship Class	MUS 0820	\$ 2.00
Avocational and Recreational Seminar	SEM 500; 0800	Fees are established by the Vice-President
ADULT EDUCATION	FLORIDA RESIDENT	\$ 5.00
	NON-RESIDENT	\$ 5.00
COMMUNITY AND INSTRUCTIONAL SERVICES COURSES		\$ 5.00

Duplicate Registration Receipts

HIGH SCHOOL COMPLETION, VOCATIONAL, NON-COLLEGE CREDIT OCCUPATIONAL EDUCATION AND ADULT CONTINUING EDUCATION

Each duplicate of Registration Receipt \$ 5.00

Test and Examination Fees

General Education Development Test (GED) (High School Equivalency)	
One test	\$ 3.00
Total battery	\$ 14.50
(Fees established by the State Department of Education.)	
Validation of GED scores from out of state, United States Armed Forces Institute (USAFI) or DANTES (includes diploma, if entitled)	
	\$ 5.00
High School Credit-by-Examination (HSCBE)	
	\$ 4.00
Fee waived for students enrolled in a high school course for credit, if student wishes to take the test for that particular course.	

Test fees are to be paid at time of making application for the test.

Fees for Ceremonies Conducted for Special Programs

The president or official designee shall determine the items to be purchased by the college which will permit the conducting of ceremonies in accordance with established traditions for special programs, primarily in the Health Related Education area. The charge to the student shall not exceed the cost of the items purchased for each student.

Waiver of Tuition and Fees

Individuals enrolled in the following courses and/or programs are eligible for waiver of tuition and fees:

Adult Basic Education (ABE) Courses and Programs (Non-College Credit)–

No fees are assessed.

Dependent Child of “Special Risk Members”–

Any dependent child of a “Special Risk Member,” as defined in section 121.021 (15), Florida Statutes, shall be entitled to a full waiver of tuition and fees if the special risk member was killed in the line of duty. Special members are defined as employees whose retirement application is approved as special risk by the Division of Retirement. Special risk members are usually law enforcement officers, policemen, correctional agency employees in contact with inmates and other employees in the field of law enforcement and fire protection. This waiver shall apply until the child’s 25th birthday. Students applying for this waiver must meet regular admission requirements and provide proof of age. The college will obtain documentation from the Division of Retirement certifying eligibility for the special risk member tuition and fee waiver.

Senior Adults (Continuing Education)–

A senior citizen, who is 60 years or older and who provides proof of age, which may be driver’s license or Jacksonville Transportation Authority pass, may be enrolled for courses on a space available basis. Senior citizens may be admitted into a class once there have been at least ten fee paying students enrolled. Proof of eligibility is to be submitted to the campus Financial Aid office prior to registration.

Former Prisoners of War – Vietnam (Non-College Credit)–

Individuals who were Prisoners of War – Vietnam. Copy of discharge is to be attached to fee statement.

FJC Diploma Seeking Students in High School Credit Completion Program –

No fees are assessed.

Employee Reimbursement

FJC full-time regular employees and their dependents may be reimbursed for courses taken at FJC. The employee or dependent must pay his or her own fees at registration. However, upon proof of satisfactory completion of course work, employees and their dependents will be reimbursed 100 per cent of registration fees, limited to six credit hours per term. For purposes of this fee waiver, dependents are defined as a dependent spouse or dependent child who is under the age of 22, living at home and enrolled as a full-time student.

Schedule for Payment of Fees**All Continuing Education Classes**

In order for registration to be complete, fees must be paid at the time of registration.

Seminars and Workshops

As published in announcement, workshops or seminars which require special arrangements may provide no refund of fees if participant cancels after the time specified in announcement.

Fee Refunds, Continuing Education Courses**Requirements**

Refunds for cancelled classes will be processed automatically on a timely basis by the Finance Department.

Students who wish to drop a class to receive a refund or clear their financial aid must report to the Campus Student Records office and complete a drop card no later than five business days after the beginning date of class or date shown on the registration receipt, whichever is later. No refund of fees will be made on classes for which the fee is \$5 or less, unless the college cancels the class.

Amounts and Conditions of Refunds or Credit Memoranda

If a veteran’s deferment is authorized and the college cancels the class(es) or the registration of a student is cancelled, the deferment will be reduced by the amount of the cancelled class(es) for a student.

Amounts due the college will be deducted before any check or credit memorandum to the credit card account is issued.

Payment Dates

Refund checks or credit memoranda to credit card accounts will be made in accordance with the schedule established by the college.

Cancellation of Classes

If the college cancels a class at any time prior to its completion, the student’s enrollment in that class will be cancelled and the student will be entitled to a 100 percent refund of fees paid for that class.

If the college cancels the class or the student’s registration, the college will initiate the refund without written application by the student.

Suspension, Termination or Cancellation of Enrollment

The college reserves the right to suspend, terminate, or retroactively cancel the enrollment of any student for any of the following reasons:

1. Disciplinary reasons

2. Non-payment of course fees when payment is due, including non-payment resulting from dishonored checks.

Agency Sponsored Payments

In instances in which a sponsoring agency or organization has agreed in writing to reimburse FJC for the registration fees and/or books for a particular student and does not render payment to the college in the prescribed manner, the sponsored student(s) will be liable for any charges incurred on his/her behalf and will be billed by the college. The student will be required to render payment within 10 days of the billing date.



Continuing Education Programs of Study

Program Areas

Occupational Education

Continuing Education programs and courses offer a wide variety of preparatory and supplementary vocational training throughout the junior college district wherever the need exists and adequate facilities are located. Courses are taught in public school facilities during evening hours, in industrial plants, in commercial office buildings, on campuses and centers of Florida Junior College at Jacksonville, and other suitable locations. The length and frequency of meetings for courses differ and are determined by the type and objectives of the course.

The primary purposes of these programs and courses are (1) to provide individuals with necessary skills to make them employable, (2) to provide individuals with training needed to upgrade or broaden their present skills and enhance their occupational opportunities, and (3) to provide the business and industrial community with trained personnel.

In the area of Occupational Education, the College maintains close liaison with, and is assisted by, program advisory committees, professional, civic, and church organizations, governmental agencies, business and industry, and other groups in determining needs and providing occupational education for the community.

A high school diploma or equivalent is not required for enrollment in most Occupational Education courses/programs but is highly recommended.

Persons can be admitted to Preparatory Occupational Education programs only for the purpose of attaining skills leading directly to securing employment.

Persons can be admitted to Supplemental Occupational Education courses provided they are currently or have been previously employed in an occupation related to the course.

Occupational Education Testing and Basic Skills Training

Students desiring to enter a non-college credit occupational program of more than 450 hours will be tested for basic communications and mathematical skills. Students scoring below an established level for each program will be required to take appropriate basic skills training prior to receiving a certificate of completion for the occupational program.

Occupational Preparatory Education and Evaluated CEU Courses Grading System

The grading system is designed to evaluate the performance of the student as fairly and equitably as possible.

Letter grades will be assigned for courses as follows:

I	INCOMPLETE
S	SATISFACTORY
U	UNSATISFACTORY
W	WITHDRAWAL
SI	SATISFACTORY/INCOMPLETE

Once a grade of S or U in a course has been reported to the Registrar, it may only be changed as follows:

1. Upon recommendation of the instructor who assigned the grade, with approval of the program director or assistant dean.
2. Upon recommendation by the department chairperson or program manager, and approved by the assistant dean, when the instructor who assigned the grade is no longer a member of the faculty of Florida Junior College at Jacksonville.

The I or SI grade may be changed by the instructor within the time limit indicated in the College Calendar.

Occupational Education courses, other than occupational preparatory education and evaluated CEU courses explained before, and all Adult and Continuing Education courses, except high school credit, receive no grade (NG).

Developmental Education Downtown Campus

The Developmental Education Department at the Downtown Campus offers various programs to non-college credit students. The goal of the department is to assist students who need additional help in the academic area to reach their educational goals. Program strategies include:

1. Reading courses that may be taken for high school credit or self-enrichment.
2. Individualized instruction in reading.
3. Tutoring.

4. Diagnostic and prescriptive teaching in the Individualized Manpower Training System (IMTS) in the areas of Math, English, and Reading.

Other services include:

1. Assistance in wise career decision-making and goal-setting through the Downtown Campus career center, Occupational Assessment and Information System (OASIS).
2. In-depth student evaluation through the Evaluation Resource Center (ERC).

Adult General Education

In the area of Adult General Education, Florida Junior College at Jacksonville cooperates with the public schools, community schools, health and welfare groups, civic and community clubs, business and industry, and other adult agencies to provide educational services.

Adults in the community have the opportunity to grow in basic knowledge, improve in home and community life, develop leadership and civic responsibilities, expand in knowledge in general education, and develop creativity in the fine arts.

Adult General Education Programs are offered where there is community need and interest. Florida Junior College at Jacksonville is offering courses in more than 225 different locations throughout Duval County.

Many programs, courses, and services are offered on a continuing basis. Short courses, in-service training programs, and courses of specific interest may be initiated by request from individuals and groups in the community, based upon resources available at time of request.

Adult Basic Education -- Academy for Adult Literacy

The Adult Basic Education Program of Florida Junior College at Jacksonville is designed to provide basic literacy instruction in the fundamental academic areas of reading, writing and arithmetic.

The primary focus of study may be on any one or more of the following general knowledge areas:

1. Pre-vocational or employability skills development.
2. Improvements in home and family life.
3. Use of financial resources and consumer education.
4. Social and civic responsibilities.
5. Use of community resources.
6. Health and safety education.
7. Human and interpersonal relations.
8. Communication skills in the English language.

9. Self-fulfillment and development as a continuing lifelong learner.

Performance in these general knowledge areas will be based upon achievement in the following skill areas: reading, writing, speaking, listening, problem-solving, computation and interpersonal relations.

The Academy for Adult Literacy provides supportive services for its students in the areas of guidance and counseling, testing, specialized reading needs, and employability skills.

The Adult Basic Education Program will award the following certificates to deserving ABE students.

Certificate of Attendance

The Certificate of Attendance will be issued by the Director of Adult Basic Education to those students with excellent classroom attendance. This certificate will be based on the recommendation of the instructor.

Certificate of Achievement

A Certificate of Achievement will be issued to students successfully completing Level I, II or III of the Test of Adult Basic Education.

Certificate of Completion

An Adult Basic Education Certificate of Completion will be awarded to students who function above the 8th grade level on Level IV of the Test of Adult Basic Education.

Enrollment in Adult Basic Education classes is available to all adults who are 16 years of age or older and function at or below the eighth grade level on literacy skills.

Adult Basic Education classes are offered in adult centers which are located in schools, churches, and other available community facilities throughout Duval County at no cost to the students.

Academy for the High School Diploma Admission Requirements

Adults, 18 years of age or older, may choose to earn an adult high school diploma at the college by taking appropriate course work. Persons aged 16 and 17 also may enroll in the Academy for the High School Diploma but must wait until a period of six calendar months has elapsed since the date of official withdrawal from public or private high school. Exceptions may be made when recommended in writing by the superintendent of schools or the superintendent's designee from the county in which the student resides while attending FJC or by the principal of a private high school in the local area.

Applicants to this program are required to present the following documentation:

1. Application for admission.
2. Copy of Social Security card.
3. Proof of high school withdrawal (for persons 16 or 17 years of age).

4. Proof of previous education. The following are acceptable for proof of previous education:
 - a. Official high school transcript.
 - b. Certification by student of completion below ninth grade level.
 - c. Verification from previous high school or school board that transcript cannot be obtained.
 - d. Waiver of (a) or (c) above by Student Appeals Committee.

Students, 16 years of age or older, who are currently enrolled in a local public or private high school may, upon permission from the high school principal or the principal's designee, pursue course work at Florida Junior College at Jacksonville for transfer back to the high school from which the student expects to receive a diploma. Upon completion of the course work, it is the student's responsibility to request that a transcript be sent to the graduating high school.

Applicants to this program are required to present the following documentation:

1. Application for admission.
2. Copy of Social Security card.
3. Permission note from high school principal or the principal's designee indicating exact subjects to be taken.

Adult High School Grading System

The grading system is designed to evaluate the performance of the student as fairly and equitably as possible.

Letter grades will be assigned for courses as follows:

A	EXCELLENT
B	GOOD
C	AVERAGE
D	POOR
I	INCOMPLETE
NP	NON-PUNITIVE
S	SATISFACTORY -- (Course not completed- No Credit)
U	UNSATISFACTORY
W	WITHDRAWAL
Z	A vs C EXPOSURE (30 hours minimum)

Students registered in high school classes but not earning high school credit will receive a grade of NG (no grade).

Once a grade of A, B, C, D, NP, S, U, or Z in a course has been reported to the Registrar, it may only be changed as follows:

1. Upon recommendation of the instructor who assigned the grade, with approval of the department chairperson or program manager.
2. Upon recommendation by the director, and approval by the assistant dean, when the instructor who assigned the grade is no longer a member of the faculty.

An "I" grade may be assigned only when extenuating circumstances prevent a student from completing the course work during the regular term. To be eligible to receive an "I" grade the student must have completed at least three-fourths of the course work.

The "I" grade may be changed by the instructor to A, B, C, D, NP, U, or Z within the time limit indicated in the College Calendar.

Adult High School Diploma Requirements

There is no set required amount of time necessary to earn an Adult High School Diploma. The Florida State Department of Education has established that an adult can progress at the adult's own rate of speed and achieve credit by subject examination whenever the student judges that he or she is prepared. Thus, an adult may complete credit requirements as rapidly as the adult is able to prove his or her knowledge and skills.

Beginning Fall Term, 1986, a minimum of 24 unduplicated credits, grades nine through 12, shall be required for an Adult High School Diploma. Two of these credits must be earned at Florida Junior College at Jacksonville under Admission Status "A." Fourteen and one-half of these 24 credits must be earned in the following areas:

1. **English** -- (4 Credits) Major concentration in composition and literature)

	Credits
ENG 0010 -- Fundamental Basic Skills in Communications	1.0
ENG 0001 -- English I	1.0
ENG 0006 -- English II	1.0
ENG 0007 -- English III	1.0
ENG 0008 -- English IV	1.0
APC 0015 -- Business English I	1.0
LIT 0014 -- World Literature	1.0
LIT 0015 -- American Literature	1.0
LIT 0016 -- British Literature	1.0
ENG 0021 -- Writing I	.5
ENG 0022 -- Writing II	.5

2. **Mathematics** -- (3 Credits)

MAT 0003 -- Pre-Algebra	1.0
MAT 0004 -- Algebra I	1.0
MAT 0005 -- Algebra II	1.0
MAT 0008 -- Fundamental Mathematics II	1.0
MAT 0001 -- General Mathematics III	1.0
MAT 0009 -- Consumer Mathematics	1.0
MAT 0002 -- Business Mathematics I	1.0
MAT 0007 -- Geometry	1.0

3. **Science** -- (3 Credits -- 2 with Lab)

BIO 0005 -- Biology I (with Lab)	1.0
ANA 0001 -- Anatomy and Physiology (with Lab)	1.0
PHS 0004 -- Earth/Space Science	1.0
ECY 0001 -- Environmental Science	1.0
PHS 0001 -- General Science	1.0

PHS 0003 – Physical Science (with Lab)	1.0
CHE 0001 – Chemistry I (with Lab)	1.0
BOT 0010 – Botany (with Lab)	1.0
4. American History – (1 Credit)	
HIS 0005 – American History	1.0
5. World History – (1 Credit)	
HIS 0004 – World History (not less than 30 hrs. A vs. C)	1.0
6. Economics – (1/2 Credit)	
ECP 0001 – Economics	.5
7. American Government (1/2 Credit)	
POS 0008 – American Government	.5
8. Practical Arts Vocational Education or Exploratory Vocational Education (1/2 Credit)	
(Any courses in Vocational Section of Course Code Directory may be used to satisfy this requirement)	
ORI 0002 – Employability Skills	.5
BUS 0001 – General Business	1.0
STS 0003 – Shorthand, Personal	.5
TYG 0102 – Typewriting, Personal	.5
DRT 0101 – Drafting Mechanical	1.0
CGC 0011 – Child Development, Guidance & Care	1.0
AAC 0131 – Bookkeeping	1.0
FMC 0321 – Clerk Typist	1.0
CLT 0320 – Clothing and Textiles	.5
CMP 0506 – Fundamentals of Clothing Management	1.0
HEF 0103 – Fundamentals of Interior Design	1.0
9. Performing Fine Arts – (1/2 Credit)	
10. Life Management Skills – (1/2 Credit)	
AND	
Electives – (9 1/2 Credits)	
(Selected from any FJC adult high school credit course not used to meet one of the above requirements.)	

State Student Performance Standards

1. All students must either pass State Student Assessment Test, Part I (SSAT I) at their previous high school, or be certified in Basic Skills through testing to meet requirements of SSAT I.
2. All students must pass the State Student Assessment Test, Part II (SSAT II) prior to graduation.

No student shall be granted credit toward a high school diploma for enrollment in the following courses or programs:

1. More than nine elective credits in remedial programs as provided for in FS* 236.0841, and Remedial Programs as provided for in FS* 236.088.
2. More than one-half credit in Exploratory Vocational Courses as defined in FS* 228.041(22)(d).

3. More than three credits in Practical Arts Home Economics as defined in FS* 228.041(22)(d).

Students enrolled in the Adult High School program in pursuit of the high school diploma after the beginning of the 1978-79 school year and before the 1984-85 school year are required to meet only those requirements for graduation that were in effect at the time of their enrollment when such enrollment has been continuous except for summer terms.

It is the high school student's responsibility to make application for graduation after the student has completed requirements. Before a student may graduate, the student must have fulfilled all financial obligations to the College.

Military Service Credits

A person who has been admitted to the Adult High School Completion Program may request an evaluation of military educational experience and service by submitting documentary evidence to the Campus Registration Office.

High School Equivalency Diploma

The GED (High School Equivalency) Examination is a battery of five tests administered monthly by Florida Junior College to any person who is at least 18 years of age, out of school, and has a Florida address. Information on test registration may be obtained from any campus Student Records and Admissions office. The registration fee is established by the Department of Education. Persons who pass the exam receive a diploma from the State Department of Education.

HIGH SCHOOL REVIEW classes for GED test preparation are available through each campus. The classes provide intensive review in areas covered on the GED Exam.

In addition, the GED TESTING SKILLS SEMINAR provides critical testing information for persons who wish to take the GED exam without enrolling in High School Review classes.

High School Testing Program

BASIC SKILLS CERTIFICATION TESTING is required for graduation for students who have not passed the State Student Assessment Test, Part I (SSAT I). Information may be obtained in the Campus Registration office on any campus.

STATE STUDENT ASSESSMENT TEST, PART II (SSAT Part II) is required for high school graduation. Information and applications are available in the

high school counseling offices and the Campus Registration office on any campus. No fee.

HIGH SCHOOL CREDIT-BY-EXAMINATION (HSCBE) is available in a variety of high school academic subjects. Students may register for HSCBE in the Campus Registration office on any campus unless the student is registered in a high school course having the same number, in which case the fee is waived.

Senior Adult Center

The Senior Adult Center is a resource center for the educational needs of senior adults. It provides a variety of educational experiences for older adults. Approximately 170 continuing education courses are offered in locations throughout the community, with particular emphasis on interests and concerns of senior adults. Seminars and workshops addressing specific needs are offered periodically to provide further training. For information or counseling, call the Senior Adult Center office at the Downtown Campus, Room 3106, 101 West State Street, 633-8390.

Independent Living for Adult Blind (ILAB)

ILAB is an instructional program for blind adults. The Home Management/Personal Safety course is modularized, allowing students to elect various components according to need. In Home Management, the student is taught skills necessary to maintain a home effectively. In the Communications component, the student may learn braille, typing, use of handwriting aids and appropriate electronic equipment. Personal safety is emphasized in Orientation and Mobility training which allows a blind person to move about safely and master skills necessary for independent travel. Counseling is also available for students and their families.

Women's Center

The Women's Center is located at the Downtown Campus, 101 West State Street, Room 3106. Personal, educational, and career counseling services are available to Florida Junior College at Jacksonville students and members of the community. Class offerings include Assertive Training, Opening Doors for the Widowed, Career Development, Back to School/Back to Work, Opening Doors for Women, Supervisory Training, and others. The center also offers special programming – short courses, workshops and seminars – to community organizations. Special programs have been designed for community business and professional women (once monthly, Women's Information Exchange luncheons), for women in industrial training programs, single mothers, and women starting their own business. Call 633-8311 for additional information.

CHALLENGE: THE DISPLACED HOMEMAKER PROGRAM, is a uniquely designed three-week training program for displaced homemakers. A displaced homemaker is defined as an individual who:

1. is 35 years of age or older;
2. has worked in the home, providing unpaid employment;
3. is not gainfully employed;
4. has had or would have difficulty securing employment;
5. has been dependent on the income of another family member but is no longer supported by such income, or has been dependent on federal assistance.

Challenge provides an intensive training and counseling program with emphasis placed on self-assessment, confidence building, goal setting, educational re-entry, decision making and job seeking. Supportive services in the form of child care and transportation allowances are provided.

Challenge is located on the Downtown Campus, Room 3106, 101 West State Street, 633-8316.

Nursing Continuing Education

A Nursing Continuing Education program is planned to meet the educational needs of nurses in updating knowledge and skills required for current practice. Continuing education courses are designed to enhance the quality of nursing care provided to the public.

Nursing practice is based on a continuously expanding body of knowledge and skills which prepares nurses to function effectively as members of the health care team.

Reassessment of learning needs and ongoing evaluation of current offerings is the basis for future program development. Topics and locations will vary to meet the needs of the nursing community.

Community Services

Through its program of Community Services, the college offers programs of study, institutes, short courses, seminars, workshops, clinics, and lectures to meet the educational needs of adult groups in the community.

Requests for such courses are encouraged. Consideration for such courses is based upon the level of instruction, the number of persons interested, and the availability of resources and qualified instructional personnel at the time of request.

Adults desiring to enter adult classes or programs should apply in person at the adult center or campus offering the subjects of their choice.

Lawrence R. Geis Marine Center

The college has constructed a new marine training center at Sand Fly Point on the St. Johns River. The new facility has the latest equipment and is designed to train persons for immediate employment in marine related jobs and for upgrading or updating persons already employed in the marine industry. Training specialties being offered include boatbuilding, marine electricity, marine electronics, marine engines, marine metal fabrication, marine pipefitting and marine welding.

For additional information contact the Director, Lawrence R. Geis Marine Center at 766-2401.



Continuing Education Studies

NOTE: The program award is designated as follows:

CAS – Certificate of Applied Science

CT – Certificate of Training

Technical and Industrial Services

Air Conditioning, Refrigeration and Heating (CAS)

Auto Body Repair (CAS)

Automotive and Light Truck Mechanics (CAS)

Automotive Machine Shop (CAS)

Carpentry (CAS)

Industrial Electricity (CAS)

Industrial Electronics (CAS)

Industrial Machine Shop (CAS)

Major Appliance Repair (CAS)

Marine Technology (CAS)

Plumbing and Pipefitting (CAS)

Printing (CT)

Small Gasoline Engines (CAS)

Water/Sewage Plant Communications (CT)

Welding (CAS)

Programs of Study

Consumer and Human Services

Cosmetology (CAS)

Supervised Food Service Worker (CT)

General Business and Information Services

Basic Typewriting (CT)

Computer Programmer Training for the Disabled
(CAS)

Office Occupations (CAS)

Real Estate (CT)

Health Services

Medical Assisting (CAS)

Nurse Assisting (CT)

Practical Nursing (CAS)

Surgical Technician (CAS)

Public and Financial Services

Bank Teller Training (CT)

Basic Police Recruit Course (CT)

Basic Security Officer Course (CT)

Basic Training for Correctional Officers (CT)

Cashier/Sales/Checker (CT)

Fire Fighters Minimum Standards Course (CT)

Adult Developmental Studies

Adult Basic Education

High School Review (GED)

Adult High School Diploma Studies

Art/Photography

Biological Science

English/Journalism/Reading

Foreign Language

History/Geography

Humanities

Mathematics

Music

Physical Science

Political Science

Psychology

Speech/Film/Theater

Sociology



Occupational Education Programs of Study Awards/Related Course(s)

Consumer and Human Services

Certificate of Applied Science:

Cosmetology

- COY 0309 Cosmetology I
- COY 0310 Cosmetology II
- COY 0311 Cosmetology III

Certificate of Training:

Supervised Food Service Worker

- FSM 0314 Supervised Food Service Worker

General Business and Information Services

Certificate of Applied Science:

Computer Programmer Training for the Disabled

- BDP 0300 Computer Programmer Training for
the Disabled

Office Occupations

- IDS 0010 Basic Skills I
- IDS 0011 Basic Skills II
- IDS 0012 Basic Skills III
- STS 0309 Office Occupations I
- STS 0310 Office Occupations II
- STS 0311 Office Occupations III

Certificate of Training:

Basic Typewriting

- TYG 0110 Basic Typewriting

Health Services

Certificate of Applied Science:

Medical Assisting

- MEA 0310 Medical Assisting

Practical Nursing

- PRN 0310 Practical Nursing

Surgical Technician

- STO 0310 Surgical Technician

Certificate of Training:

Nurse Assisting

- NUA 0310 Nurse Assistant

Public and Financial Services

Certificate of Training:

Bank Teller Training

- FCR 0415 Bank Teller Training

Basic Police Recruit Course

- LAE 0310 Basic Recruit Training for Police
Officers

Basic Security Officer Course

- SEO 0210 Basic Security Officers Training
Course

Basic Training for Correctional Officers

- COR 0418 Basic Training for Correctional
Officers

Cashier/Sales/Checker

- GMR 0310 Cashier/Sales/Checker

Fire Fighters Minimum Standard Course

- FIF 0422 Fire Fighter Minimum Standards
Course

Real Estate Principles and Practices

- RES 0211, Real Estate Principles and Practices

Technical and Industrial Services

Certificate of Applied Science:

Air Conditioning, Refrigeration and Heating

- ACT 0309 A/C, Refrigeration and Heating I
- ACT 0310 A/C, Refrigeration and Heating II
- ACT 0311 A/C, Refrigeration and Heating III
- IDS 0010 Basic Skills I
- IDS 0011 Basic Skills II
- IDS 0012 Basic Skills III

Auto Body Repair

- ABF 0109 Auto Body Repair I
- ABF 0110 Auto Body Repair II
- ABF 0111 Auto Body Repair III
- IDS 0010 Basic Skills I
- IDS 0011 Basic Skills II
- IDS 0012 Basic Skills III

Automotive and Light Truck Mechanics

- AUM 0309 Automotive and Light Truck
Mechanics I
- AUM 0310 Automotive and Light Truck
Mechanics II
- AUM 0311 Automotive and Light Truck
Mechanics III
- IDS 0010 Basic Skills I
- IDS 0011 Basic Skills II
- IDS 0012 Basic Skills III

Automotive Machine Shop

- IDS 0010 Basic Skills I
- IDS 0011 Basic Skills II
- IDS 0012 Basic Skills III
- MSH 0318 Automotive Machine Shop I
- MSH 0319 Automotive Machine Shop II
- MSH 0320 Automotive Machine Shop III

Carpentry

CAP 0309 Carpentry I
 CAP 0310 Carpentry II
 CAP 0311 Carpentry III
 IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III

Industrial Electricity

IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III
 IEL 0309 Industrial Electricity I
 IEL 0310 Industrial Electricity II
 IEL 0311 Industrial Electricity III

Industrial Electronics

ELS 0309 Industrial Electronics I
 ELS 0310 Industrial Electronics II
 ELS 0311 Industrial Electronics III
 IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III

Industrial Machine Shop

IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III
 MSH 0309 Industrial Machine Shop I
 MSH 0310 Industrial Machine Shop II
 MSH 0311 Industrial Machine Shop III

Major Appliance Repair

ARR 0308 Major Appliance Repair I
 ARR 0309 Major Appliance Repair II
 ARR 0310 Major Appliance Repair III
 IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III

Marine Technology

MTE 0006 Marine Technology – Introduction
 to Marine Technology
 MTE 0017 Marine Technology – Boatbuilding
 Specialty I
 MTE 0018 Marine Technology – Boatbuilding
 Specialty II
 MTE 0028 Marine Technology – Electricity
 Specialty I
 MTE 0029 Marine Technology – Electricity
 Specialty II
 MTE 0036 Marine Technology – Electronics
 Specialty I

MTE 0037 Marine Technology – Electronics
 Specialty II
 MTE 0048 Marine Technology – Engines
 Specialty I
 MTE 0049 Marine Technology – Engines
 Specialty II
 MTE 0058 Marine Technology – Metal
 Fabrication Specialty I
 MTE 0059 Marine Technology – Metal
 Fabrication Specialty II
 MTE 0069 Marine Technology – Pipefitting
 Specialty I
 MTE 0070 Marine Technology – Pipefitting
 Specialty II
 MTE 0090 Marine Technology – Welding
 Specialty I
 MTE 0091 Marine Technology – Welding
 Specialty II

Plumbing and Pipefitting

IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III
 PPF 0309 Plumbing and Pipefitting I
 PPF 0310 Plumbing and Pipefitting II
 PPF 0311 Plumbing and Pipefitting III

Small Gasoline Engines

ENR 0309 Small Gasoline Engines I
 ENR 0310 Small Gasoline Engines II
 ENR 0311 Small Gasoline Engines III
 IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III

Welding

WEL 0309 Welding Basic
 WEL 0310 Welding Intermediate
 WEL 0311 Welding Advanced
 IDS 0010 Basic Skills I
 IDS 0011 Basic Skills II
 IDS 0012 Basic Skills III

Certificate of Training:**Printing**

GRA 0310 Printing

Water/Sewage Plant Communications

APC 0221 Water and Sewage Plant-Related
 Communications

Continuing Education

Cross Reference of New Numbers

The Continuing Education courses are in the process of conversion to the Statewide Course Numbering System (SCNS), consistent with the college credit course assignments within SCNS.

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
CGC 0035	State Child Care Worker Training Course	CHD 0103
ECO 0006	Career Planning	SLS 0006
EME 0014	Emergency Medical Technology Seminar	EMS 0395
EME 0011	Basic Review Emergency Care	EMS 0381
EME 0012	Advanced (Rescue) Emergency Care	EMS 0391
EME 0018	Basic Life Support	EMS 0065
EME 0020	Basic Life Support Instructors	EMS 0731
FIF 0422	Fire Fighter Minimum Standards Course	FFP 0005
MLS 0500	Panorama of Advances in Medical Technology	MLS 0930
INS 0270	Life Agent Qualification Course	RMI 0110
SLS 0005	Job Seeking and Keeping Skills	SLS 0336
SLS 0010	Computer-Assisted Career and Job Search Guidance	SLS 0335
WEL 0400	Oxygen-Acetylene Brazing and Braze Welding	MTR 0105
WEL 0405	Gas Metal Arc Welding Pipe	MTR 0146
WEL 0410	Basic Gas Metal Arc Welding	MTR 0122
WEL 0415	Flux Cored Arc Welding	MTR 0124
WEL 0420	Preparation for Plate Certification	MTR 0082
WEL 0425	Oxygen-Acetylene Welding	MTR 0101
WEL 0430	Gas Tungsten Arc Welding (TIG) Pipe and Tubing	MTR 0147
WEL 0435	Gas Tungsten Arc Welding Basic	MTR 0126
WEL 0440	Gas Metal Arc Welding Advanced	MTR 0123
WEL 0445	Shielded Metal Arc Welding Pipe Downhill	MTE 0144
WEL 0450	Preparation for Pipe Certification	MTR 0085

Continuing Education Course Descriptions

All courses in the following list are not taught each term. Class schedules are published prior to each term which show the courses that will be offered.

Career Advancement Courses

AAC 0030 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, merchants, and other businessmen 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 journalizing, posting financial statements, adjusting and closing books. Emphasis is given to inventory methods, special journals, control accounts, depreciation, and payroll methods.

ABF 0109 Auto Body Repair I

Corequisite: IDS 0010. This course is designed for job entry training in the repair and replacement of damaged automobile body parts and includes instruction in air compressors, painting equipment, paint identification, paint ryzers and additives, primers, sealers, surface preparation, masking, refinishing and paint problems and condition.

ABF 0110 Auto Body Repair II

Prerequisite: AFB 0109. Corequisite: IDS 0011. This course is a continuation of Auto Body Repair I and includes instruction in damage appraising, step repair, metal analysis, metal sectioning and fitting and oxygen and acetylene welding, brazing and metal shrinking.

ABF 0111 Auto Body Repair III

Prerequisite: ABF 0110. Corequisite: IDS 0012. This course is a continuation of Auto Body Repair II and includes instruction in the repair and replacement of damaged automobile body parts and in panel replacement, body alignment, glass replacement, frame types, gauging, measuring and frame machine operations.

ACT 0309 Air Conditioning, Refrigeration and Heating I

Corequisite: IDS 0010. This course is the first of three sequential courses designed for job entry training in the air conditioning, refrigeration and heating fields. Instruction includes the scientific operation and principles of the more common types of equipment and the technical skills that are needed to maintain and repair the mechanical and electrical systems. The proper use of shop manuals, manufacturers' manuals and related technical literature is stressed.

ACT 0310 Air Conditioning, Refrigeration and Heating II

Prerequisite: ACT 0309. Corequisite: IDS 0011. This course is a continuation of ACT 0309, Air Conditioning, Refrigeration and Heating I. Course content will emphasize piping, brazing, soldering, oil and gas heating and heat pumps.

ACT 0311 Air Conditioning, Refrigeration and Heating III

Prerequisite: ACT 0310. Corequisite: IDS 0012. This course is a continuation of ACT 0310, Air Conditioning, Refrigeration and Heating. Emphasis will be placed on heating and cooling load calculations, psychrometrics and a practicum in trouble-shooting and repair.

AIC 0003 Air Conditioning, Refrigeration and Heating

To acquaint the student with the installation and service of air conditioning systems. Computation of heat gain and loss, diagnosis and correction of problems, reading of blue-

prints, diagrams, and schematics are included. Expendable materials supplied by student. This course is designed primarily for off-campus supplementary instruction.

AIC 0315 Air Conditioning, Refrigeration and Heating

This course is designed primarily for apprenticeship instruction and its contents will include the proper procedure to 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 of both medium and low temperature, and to read blueprints, plans, electrical diagrams and schematics necessary to perform the aforementioned tasks.

AIM 0010 Aircraft Powerplants Mechanics

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

AIM 0012 Airframe Mechanics

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

AIM 0014 Airframe and Powerplant Mechanics

This course is designed as supplementary instruction for persons already employed as airframe or powerplant mechanics or related occupations. Instruction 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 0020 Advanced Instrument Training - Private Pilot

A course designed for professional general aviation pilots to gain instrument rating or to maintain instrument flight currency under FAR Part 61. Course is limited to licensed private pilots. Training will be a combination of classroom lecture and time on FAA approved ATC 610K flight simulators.

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 ATC 610K flight simulators.

APC 0011 Business English

A study of the business letter, discrimination in the use of words, spelling, review of grammar, punctuation and development of language power. This course is designed for persons already employed in a related field for supplementary instruction.

APC 0221 Water and Sewage Plant - Related Communications

Training in communications in preparation for the Water and Sewage Plant Operator's License Examination.

ARR 0308 Major Appliance Repair I

Corequisite: IDS 0010. This course is designed for job entry training and provides instruction in basic electricity, hand

tool use and testing equipment. It also includes fundamentals of refrigeration and the servicing of the domestic refrigerator.

ARR 0309 Major Appliance Repair II

Prerequisite: ARR 0308. Corequisite: IDS 0011. This course is a continuation of Major Appliance Repair I and provides instruction in the servicing, testing and repair of clothes washers, dryers and dishwashers.

ARR 0310 Major Appliance Repair III

Prerequisite: ARR 0308. Corequisite: IDS 0012. This course is a continuation of Major Appliance Repair II and provides instruction in the servicing, testing and repair of ranges, hot water heaters, compactors, garbage disposers and microwave ovens.

AUM 0003 Automotive Mechanics

This course consists of supplementary instruction in the repair of passenger automobiles and light delivery trucks, and includes engines, transmissions, clutches, carburetors, ignition systems, chassis, bodies, and power operated equipment.

AUM 0200 Automotive Machining in Industry

The course is designed to meet the needs of employers and underemployed employees in the automotive machine shop industry. Engine remanufacturing, grinding and cutting are emphasized. The course also includes safety procedures, equipment use and quality control.

AUM 0309 Automotive and Light Truck Mechanics I

Corequisite: IDS 0010. This course is designed for job-entry level and includes instruction in engine electrical and mechanical systems and fuels and emissions. The course includes a combination of classroom lecture and laboratory experience.

AUM 0310 Automotive and Light Truck Mechanics II

Prerequisite: AUM 0309. Corequisite: IDS 0011. This course is a continuation of Automotive and Light Truck Mechanics I and includes instruction in transmissions and drive trains and front suspension and steering. The course is a combination of classroom lecture and laboratory experience.

AUM 0311 Automotive and Light Truck Mechanics III

Prerequisite: AUM 0310. Corequisite: IDS 0012. This course is a continuation of Automotive and Light Truck Mechanics II and includes instruction in brake systems and air conditioning and heating. This course is a combination of classroom lecture and laboratory experience.

AUM 0395 EMP Automotive Machine Shop

The course is designed to meet the needs of employers and underemployed employees in the automotive machine shop industry.

BCN 0010 Building Maintenance

This course is designed to upgrade the skill level of persons in major phases of repair and maintenance of buildings and fixtures; including painting, carpentry, brick and blocklaying, electricity, air conditioning and refrigeration, sheet metal, and plumbing. Instruction will include safety and the use of hand and power tools.

BCN 0315 Laborer's Apprenticeship Training

Training in skills required by a laborer in the construction industry, including: safety and first aid, hand tools, handling construction materials, soil preparation, pipe laying, gasoline and electric powered equipment, concrete preparation and handling; concrete chipping and cutting, sand-blasting, oxyacetylene cutting, carpentry labor and other

skills prescribed by apprenticeship standards. Enrollment limited to apprentices in Construction Laborer's Apprenticeship Training Program.

BDP 0070 Fundamental Computer Concepts

The purpose of this course is to provide an overview of computers to today's world: what they are, what they do, how they work, the hardware involved, the necessary components of an "information system," the need for accuracy and controls, the most common languages, the most common business applications, and the understanding of the basic terminology.

BDP 0072 Introduction to Computers

This course is intended for operators of small business and others with no previous experience in data processing. It introduces the student to the world of data processing and includes a study of the various types of computers and microcomputers, hardware and software and how they relate, elementary problem solving, survey of programming languages including BASIC, history of computers, and how to select and use computers in the home and in the small businesses.

BDP 0075 Mini-Micro Computing Systems

This course is designed as supplementary instruction for persons employed in a related area. It is a survey of micro-computer applications, architectures, and availability, including the process of evaluating, ordering, and assembling kits and basic machine language programming. This course is for those interested in building their own computer systems. Desirable background includes strong foundations in high school mathematics, fundamentals of electricity and electronics, and/or basic concepts in data processing.

BDP 0085 Basic Language for the Microcomputer

This course is designed to provide the student with the knowledge and "hands-on" experience to program micro-computers 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 a basic foundation in the operation of microcomputers and establish the essential fundamentals of programming in the microsoft 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 or personal study.

BDP 0090 Intermediate Basic for Microcomputers

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

BDP 0300 Computer Programmer 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 area businesses as programmers. During the training the following areas will be covered: Business Correspondence, DP Concepts and Terminology, Analysis and Design, Terminal Familiarity (CMS), Programming Languages, Basic JCL, and CICS. Other areas will include Group Project System Utilities and Data Communication Concept. Enrollment is limited to physically

disabled individuals admitted through a selective admission process. All entering students must take the SRA Computer Programmer 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 two word processing software packages (APPLEWRITER IIe and DISPLAYWRITE II) that have become popular on both the APPLE IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to create a letter or document, use appropriate edit and functions commands, insert and delete text, print final copy with headings, 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, SUPERCALC III) that have become popular on both the APPLE IIe and IBM-PC microcomputers. The course will provide the student with the opportunity to build, edit, and manipulate a spreadsheet for financial analysis, project planning, budget projections, and "what-if" analysis.

BDP 0830 Data Base 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 student's background with a number of data base software packages (PFS-File/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 data base 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, piecharts, 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, FRAMEWORK) that have become popular on the IBM-PC microcomputer. The course will provide the student with the opportunity to simulate office problems in the business environment by creating data base files, graphs, spreadsheets, and documents. In addition to exchanging information among these functions without having to reenter the data or change magnetic media.

BLR 0390 EMP Blueprint Reading

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

CAP 0309 Carpentry I

Corequisite: IDS 0010. This course is designed specifically for job entry training in general carpentry work involved in erection of wooden building frames, installation of exterior and interior trim, floorlaying, form building, stair-building, and other similar types of building construction.

CAP 0310 Carpentry II

Prerequisite: CAP 0309. **Corequisite:** IDS 0011. This course is a continuation of Carpentry I. Topics include wall, floor and roof framing, exterior finish, interior wall coverings, stairs and foundation formwork.

CAP 0311 Carpentry III

Prerequisite: CAP 0310. **Corequisite:** IDS 0012. This course is a continuation of Carpentry II. Topics include form detailing, construction and erection, concrete and heavy timber construction.

CAP 0315 Carpentry

This course is designed primarily for apprenticeship instruction and its contents will include training in general carpentry work involved in erection of wooden building frames, installation of exterior and interior trim, floorlaying, form building, scaffold construction, stair building, and other similar types of woodwork.

CAP 0395 EMP Carpentry

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

CEQ 0115 Operating Engineering

This course is designed primarily for apprenticeship instruction. Its contents will include proper procedure in the maintenance and operation of selected power construction equipment ranging from air compressors to steam shovels.

CGC 0015 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 or is working in day care administration and supervision. Areas to be covered include setting up a program, personnel management, fiscal management, systematic planning for day-to-day operations, public relations, evaluation, and human relations.

CGC 0020 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.

CGC 0025 Child Day Care Worker In-Service Training

This course is designed to assist child day care workers in improving, on site, the quality of their care of young children. The areas of training to be covered, according to need, are child growth and development; child care programming and activities; health and safety practices; nutrition and good eating habits; design and use of physical space; working with parents; community health and social service resources; day care for multi-lingual children; day care for handicapped children; day care home administration; and handling behavior problems.

CGC 0030 Child Care Managers' Seminar

The seminar is designed for current and prospective child care administrators. The purpose of the seminar is to provide up-to-date knowledge and help participants develop skills in one or more of the following areas: child care program organization; personnel management, supervision, and problems; business practices, regulations, and planning; public relations; evaluation of employees and children; communication with staff, implementation of good employer-employee relationships, and human relations skills; and self-improvement of the supervisor.

CGC 0035 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.

CHD 0100 Child Development Associate Preparation Course

This course is designed as supplementary instruction and is a competency-based, individualized, and predominately on-the-job training course designed to provide the student with the means of acquiring competencies needed to become a Child Development Associate.

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, riot control, and other areas as needed.

CJD 0491 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, riot control, emergency vehicle operations, 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 have not completed a basic recruit (police, corrections or auxiliary) course. Firearms instruction will include proper handling of the primary service weapon on the range, in operational and off-duty situations. Safety, loading, unloading, care, cleaning and mechanics will also be covered. The course is in compliance with State Criminal Justice Standards and Training Commission requirements.

CJT 0312 Firearms Familiarization

This course is designed to provide to in-service personnel basic firearms training to those organizations in need of training which does not fall under the Criminal Justice Standards and Training Commission requirements. 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, and cleaning procedures. The course is in compliance with State Criminal Justice Standards and Training Commission requirements.

CJT 0421 Law Enforcement Basic Emergency Vehicle Operation

This course is designed for in-service police officers, recruits, and other law enforcement personnel. It is an intensive program of study dealing with vehicular dynamics, the driver's mental state during emergency situations and the driver's ability to successfully perform measured skills tests. The student will also receive training in accident avoidance and crash procedures, crash site suitability and

self-protection at the time of disablement. The student will be trained to perform routine safety checks on the vehicle and to recognize potential mechanical defects. The course also includes discussion of civil liability resulting from negligent operation of motor vehicles.

CJT 0422 Law Enforcement Refresher Emergency Vehicle Operations

This course is designed as a refresher for the basic 24 hour Tactical Police Driving Course, and will be used as annual recurrent in-service training for police and other law enforcement personnel. The student who is an in-service law enforcement officer will receive a review of the driving techniques previously taught, with emphasis on hand and feet movements, braking, skid control and accident avoidance. This program may also be tailored to provide more advanced training in these areas when special needs occur.

CLT 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 trims, design details, designer patterns, linings and underlinings, and special finishing techniques. The instructional activities include the construction of selected items such as bridal and evening wear, men's wear, children's wear, swimwear, lingerie, sportswear and fashion accessories. Concepts in management, safety, free enterprise, and consumer and economic education are taught as they relate to instruction.

CLT 0312 Basic Clothing Construction

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

CLT 0313 Advanced Clothing Construction

This course is designed as supplementary instruction for homemakers who have completed Basic Clothing Construction. It includes developing the ability to make more difficult pattern alterations, use of more complicated patterns, use and care of fabrics requiring special treatments and completion of at least one garment using more advanced techniques and details which give individuality to the garment that will be required.

CLT 0330 Basic Clothing Construction for Seniors

This course is designed as introductory instruction for senior adults. It will include learning basic procedures involved in clothing construction, a study of pattern selection including body measurements and simple alterations, fabric selection, and completion of a simple garment.

CMP 0510 Intermediate Clothing Construction

This course is designed as supplementary instruction for homemakers who have completed Basic Clothing Construction, and includes a study of more difficult construction techniques and of fabrics more difficult to handle than were used in Basic Clothing Construction.

CMP 0512 Basic Tailoring

This course is designed as supplementary instruction for the person who has demonstrated proficiency in the skills of clothing construction and includes selection, use and care of fabrics suitable for tailoring techniques. The construction of a lined garment, such as a jacket, will be required.

CMP 0515 Alterations

This course prepares the worker to alter and repair ready-to-wear garments for customers of retail shops or in their own

homes as a private business. It involves an understanding of fabric handling, clothing construction, pressing, and training in fitting techniques. The approach of the course is based on the assumption that a successful alterationist must have a thorough understanding of garment construction in order to complete the necessary fitting changes.

CMP 0516 Custom Dressmaking

Course work includes supplementary techniques and skills in constructing custom made clothing. Students should acquire skills which will enable the student to become self-employed as a custom dressmaker.

CMP 0517 Short Cuts in Sewing

This course is designed for those who are proficient in the better 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 0518 Sewing Short Cuts for Seniors

This course is designed for senior adults who know the basics of clothing construction, but who would like to learn techniques for making quick, casual clothes. This course will include supplementary instruction in short cuts in marking, construction, and finishing. Emphasis will be placed on efficiency and economy.

CMP 0520 Fashion Design and Flat Pattern Drafting

This course is designed for students with prior experience in clothing construction who are interested in designing garments for themselves and others. Major concepts of the course include the influence of individuals on fashion, fashion history, elements and principles of design and their 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 0525 Wardrobe Accessories for Seniors

This course, which requires basic skills, is designed for the senior adult who is interested in enhancing and extending his/her wardrobe by learning how to make hats, belts, scarves, ties, lapel ornaments, or any other accessory. Development of personal creativity is emphasized.

CMP 0530 Intermediate Clothing Construction for Seniors

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

COR 0418 Basic Training for Correctional Officers

The basic training for correctional officers is designed specifically for job entry training to give each student a basic understanding of the duties and responsibilities of the line correctional officer. In addition, it is designed to give the student an overview of the other related fields within the criminal justice system. Specific areas in which the student will receive instruction include operational procedures, legal aspects of corrections, supervisory practices and related technical skills. **NOTE:** Course is restricted to individuals sponsored with intent of employment by area law enforcement agencies.

COR 0426 In-Service Corrections Training

This course is designed to provide supplementary in-service instruction of area corrections personnel. Specific areas of instruction include numerous subjects such as institutional and non-secure procedures; mechanics of search; fingerprinting; contraband control; discipline; interper-

sonal communications; counseling and guidance; offender treatment; medical, social and volunteer services; records and report writing; first aid; and firearms.

COY 0309 Cosmetology I

This is an introductory course and is designed to provide students with the essential concepts in the field of Cosmetology. In addition to classroom instruction, this course will 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 working 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 State Board preparation are emphasized. In addition, a practical application of skills and techniques with emphasis on speed will be stressed in an effort to get the student's performance up to an 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 may 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 0020 Intermediate Current Dental Concepts

This course provides supplementary instruction for the practicing dentist, assistant and/or hygienist. Topics include a detailed study 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 an advanced study 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.

DIM 0050 Changing Technology in Diesel Vehicles

This course is designed to teach innovations and their repair procedures to prospective and current mechanics of diesel vehicles. Specific emphasis will be placed on GM products and safety.

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 will include theory, maintenance procedures, and safety precautions associated with diesel powered engines.

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CONTINUING EDUCATION

DIM 0390 EMP Diesel Mechanics

This course is designed to meet the needs of employers and underemployed employees in the diesel mechanics industry.

EER 0001 National Electrical Code Review

This course is designed for persons employed in the electrical field and provides a review of the calculations included in the Codes Exam. Instruction includes temperature connection, voltage drop, transformer, conduit fill, motor circuits and service entrance calculations. Single and polyphase calculations are also covered.

EER 0005 AC/DC Contractors and Magnetic Motor Starters

This course is designed for persons employed in the electrical field and teaches the operating features, application, troubleshooting, and repair of magnetic motor controls.

EER 0010 Single and Polyphase 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 0020 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 0025 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 drive systems. These systems will be explained/used in both the classroom and laboratory.

EER 0030 Solid State AC Motor Devices

This course is designed for persons employed in the electrical field and covers the operation, adjustment, troubleshooting, and repair of common AC drive systems. These systems will be explained/used in both the classroom and laboratory.

EER 0035 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 0040 Semi-Conductor Theory for Electricians

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.

ELS 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 Electronics Theory: Circuits

This course is designed for students who have completed military electronics training schools and who wish to receive college credit as outlined in the *Guide to Evaluation of Educational Experiences in the Armed Forces*. The course

includes selected topics from college credit courses ETE 1010C, 1020C, 2101C, 2111C and 2601C, in the areas of DC electricity, AC electricity, solid-state diode circuits, transistor amplifiers, and introductory digital electronics. This course is intended solely for the purpose of ensuring that military students are current in their knowledge of the rapidly changing field of electronics. At the completion of the course the student will be given a comprehensive test. Students who successfully complete the test and who present a Department of Defense Form 295 (Application 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 as they apply to amateur radio operators. Training in the International Morse Code, and Basic Electronic Theory is included. The student will have the opportunity to take the Novice Class Radio Operators license test upon completion of this course. Tests are supplied by the Federal Communications Commission (FCC) and only those passing this exam will receive their operators license.

ELS 0120 Examination Preparation: Radiotelephone Operators License

A review of material for the Federal Communications Commission Commercial Radiotelephone Operators Licenses including communications laws, operating procedures, basic and advanced electronic theory and examination procedures.

ELS 0309 Industrial Electronics I

Corequisite: IDS 0010. This course is designed to prepare the student for full-time employment in the Industrial Electronics field. Topics include electronics theory, troubleshooting, circuit testing and safety precautions.

ELS 0310 Industrial Electronics II

Prerequisite: ELS 0309. Corequisite: IDS 0011. This course is a continuation of Industrial Electronics I. Instruction will focus on semiconductor devices and electronic circuits.

ELS 0311 Industrial Electronics III

Prerequisite: ELS 0310 or consent of the instructor. Corequisite: IDS 0012. This course is a continuation of ELS 0310 and provides an introduction to industrial controls, digital electronics and microprocessors.

ELS 0390 EMP Marine/Industrial Electricity

This course is designed to meet the needs of employers and underemployed employees in the marine/industrial electricity field.

EMS 0065 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 EMT providing emergency medical care. On successful completion of this course and the corequisite, EMS 0120, one is qualified to take the State Registry Examination 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 facility. This course is corequisite to EMS 0119 and can be taken only in combination within that course.

EMS 0340 Victim Rescue

This course is designed as supplementary instruction and includes a review of victim 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 three-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 life saving procedures, intravenous fluid therapy and use of various equipment, such as defibrillators and synchronizers.

EMS 0395 Emergency Medical Technology Seminar

This seminar is designed as supplementary instruction to upgrade the skills of the working emergency medical technician.

EMS 0731 Basic Life Support Instructor

This course is designed as supplementary instruction to enable those with the Basic Life Support programs in health careers to become instructors.

ENR 0003 Gasoline Engine Mechanic

This course includes training in the inspection and repair of the mechanical equipment of gasoline powered engines (other than automobile and truck), including motor testing, carburetor adjusting, fuel line cleaning, generator adjusting, valve replacing and grinding, piston ring installing, and replacing broken or damaged parts. This course is designed primarily for off-campus supplementary instruction.

ENR 0050 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.

ENR 0309 Small Gasoline Engines I

Corequisite: IDS 0010. This course is designed specifically for job entry training in the inspection and repair of gasoline-powered engines (other than automobile and truck), including carburetor overhaul and adjustment, fuel line cleaning, valve grinding, replacement and adjustment, ignition system overhaul, and engine tune-up.

ENR 0310 Small Gasoline Engines II

Prerequisite: ENR 0309. Corequisite: IDS 0011. This course is a continuation of ENR 0309 which is designed specifically for job training. It will provide training on self propelled lawnmower drive systems, rider mowers and garden tractors, transmissions/transaxles, and garden tillers. It will also provide training on engine maintenance.

ENR 0311 Small Gasoline Engines III

Prerequisite: ENR 0310. Corequisite: IDS 0012. This course is a continuation of ENR 0310 which is designed specifically for job entry training in the inspection and repair of gasoline-powered engines (other than automobile/truck). It will provide "hands-on" training on the overhaul, adjustments, and testing of motorcycle systems.

FAR 0012 Parenting Your Teenager

This course presents the developmental process of adolescence as it occurs within the context of the rapidly changing American family. The course explores several general issues: family communication, values systems, problem solving, conflict resolution, and setting limits. Specific areas such as drug and alcohol use and abuse, sexuality and planning for the future will also be addressed.

FCR 0410 Credit Administration

This course, designed as supplementary training for persons employed in a related field, concerns itself with a statement and discussion of factors influencing and determining loan policies. Methods of credit investigations and analysis, credit techniques, collection methods, specific credit problems, and regular, as well as unusual types of loans, are outlined and discussed.

FCR 0411 Investments

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this supplementary training course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

FCR 0412 Bank Communication

In this course, the student is given an opportunity to study all phases of speech situations. The text is directed primarily to the student already employed in, and seeking to become proficient in, the communication field of banking. This course will help prepare the student in proper procedures on the public platform, and other speech situations. Having studied the basic principles involved in organizing and presenting a speech, the student is given suggestions to aid in developing speaking ability in such situations as conferences, panel discussions, radio, and television.

FCR 0413 Investments Securities

This course is designed as supplementary training for persons already employed in a related field. It helps the student to understand how the stock market works, the important role it plays in our nation's economy, and how it helps people share in the growth of our business enterprises.

FCR 0415 Bank Teller Training

This course is designed as job entry 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 jobs. Teller training can improve performance and attitudes towards co-workers and customers.

FCR 0420 Savings and Loan Principles

This course stresses the basic principles of savings and loan organizations and explains the procedures involved in their operation. It is designed specifically as supplementary training for persons employed in a related field.

FCR 0421 Banking Business Administration

In this course, emphasis is placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. It also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems. It is designed specifically as supplementary training for persons employed in a related field.

FCR 0423 Commercial Law and Banking

This course, designed specifically as supplementary training, is an introduction to law for bankers. Among the legal topics considered are jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, and agency. The standard commercial law subjects, including corporations and partnerships, are discussed. Though commercial law principles are broadly presented, attention is concentrated on the Uniform Commercial Code.

FCR 0424 Economics of Banking

This course sets forth the current principles explaining how our economic system operates and is designed specifically as supplementary training for persons employed in a related field. It takes up the determination of relative value in mar-

kets with different types of competition, and applies the underlying principles to incomes and commodities. Also includes the basics of international economics and finance, and the limitations and related pitfalls of economics.

FCR 0426 Trust Function Services

This course is designed specifically as supplementary training and presents a complete picture of the services rendered by institutions engaged in trust business. It endeavors to keep clear the distinction between 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 treatment of all up-to-date principles and also gives the student ample opportunity through examples, illustrations, and correlated 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 perspective so 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 to the particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments and foreign exchange yield curves and the structuring of portfolios.

FCR 0436 Banking Installment Credit

This course is designed specifically as supplementary training for persons employed in a related field. It concisely presents the techniques of installment lending. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the 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 installment lending.

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 ser-

vice 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.

FFP 0005 Fire Fighter Minimum Standards Course

This course is designed to prepare a student for certification and initial employment as a fire fighter in the State of Florida. Successful course completion will qualify a student to take the minimum standard written, oral, and practical examination as administered by the Bureau of Fire Standards and Training. Note: course is restricted to individuals sponsored with intent of employment by area fire departments.

FFP 0740 Fire/Rescue Basic Emergency Vehicle Operations (EVOC)

This course is designed for 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.

FFP 0741 Fire/Rescue Refresher Emergency Vehicle Operations

This course is designed to serve both as an introductory and as a recurrent course of study for in-service operation of fire and rescue vehicles. The curriculum will deal with proper driving techniques including acceleration, braking, skid correction and off-road recovery. Special emphasis is placed on public safety and emergency vehicle operation. The student must display proficiency during "hands-on" exercises and on a written examination.

FIF 0310 Fire Fighter Minimum Standards Course - Phase I

This course is designed to provide supplementary instruction of area volunteer fire fighters in partial fulfillment of the State Fire Fighter Minimum Standards Curriculum. Specific areas of instruction for this phase include overview of the fire service, apparatus and equipment, fire chemistry and behavior, and tools and small equipment.

FIF 0415 Fire Officer Instructor Course

This course is designed for persons already employed in the field. The student will learn the purpose and types of training necessary in fire department operations. In addition, selection criteria for instructors and utilization of training equipment will be presented.

FIF 0418 Fire Ground Tactics and Procedures

Students will be provided with instruction concerning the development of principles dealing with command and control, familiarization with apparatus tools and equipment, fire ground strategy, etc. Note: course is restricted to in-service fire fighters.

FIF 0419 Aerial Ladder Operations

The fire fighter will be instructed in trusses and construction, hydraulic systems, stabilizing jacks, ladder pipes, etc. Note: course is limited to in-service fire fighting personnel.

FIF 0424 Emergency Vehicle Operations Course

This course is designed for supplementary training and will focus on the construction, maintenance, use, and operation of fire service vehicles. Attention is given to vehicle nomenclature, safe driving practices, apparatus operations, and safety.

FMC 0311 Office Practice

This course is designed specifically as supplementary training for persons in a related field. Instruction includes filing, ten-key adding machine, key driven and electronic calculator, duplicating (spirit and mimeograph), and basic record keeping.

FMC 0312 Office Machines

The types of machines used in a particular class are determined by the needs of the group for whom instruction is provided. Emphasis is placed on the use of the machines in the bookkeeping process. Content of the course is selected from realistic business problems and actual business forms. This course is designed as supplementary instruction for persons already employed in the field, or in a related field.

FMD 0390 EMP Industrial Supervisory Development

This course will be designed to meet the needs of employers and underemployed persons in industry.

FMD 0395 EMP Construction License Review

This course is designed as supplementary training to assist students in obtaining necessary skills to pass the construction licensing examination.

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 its 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 responsibility for providing these. It includes information on foods with maximum nutritive value and how to purchase, store, and prepare them in order to retain these values to the maximum.

FON 0007 Low Calorie Cooking

The student will acquire knowledge and demonstrate skill in planning and preparing meals designed to promote weight loss. The student will study labels from prepared foods labeled "low calorie" or "dietetic" as opposed to non-dietetic 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 better health in the older adult and prevent illness often associated with poor eating habits.

FON 0020 Low Cholesterol 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 diets low in cholesterol. Techniques for including these foods in family meals will be emphasized, considering individual preferences and specific needs of the older family member.

FON 0109 Bread Making

This course includes a study of the ingredients and techniques involved in making and baking a variety of breads. Included will be a study of nutritive values, ingredients, methods of mixing, baking, storage and service of breads. Quick and yeast breads including sour dough breads and starters 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; food preservation methods; food garnishing; energy saving food preparation methods; and techniques in using specialized tools and equipment. Concepts in management, safety, free 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 procedure to improve quality and quantity of food served. It includes principles and techniques of quantity food production. Actual preparation of foods in quantity provides on-the-job experiences using principles and techniques learned. Trainees 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, home 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 in use of all types of equipment and the handling of hot foods; uses the basic skills required in preparation of standard large quantity recipes for vegetables, salad and dressings, milk cookery, egg cookery, soups, meat, fish and poultry, quick breads, sandwiches and desserts; serves food at table or on trays according to situation. 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 activities include experiences in planning, preparing, and serving food for a variety of occasions.

FSM 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 trips to commercial caterers and participation in commercially catered affairs.

FSM 0330 Basic Food Preparation for Seniors

This course is designed for senior adults, to include purchase procedures; use, care, storage and arrangement of equipment, and management of human and material resources. Specialized activities include experiences in planning, preparing, and serving food for a variety of occasions, developed in accordance with the senior adult's specific requirements; considering special needs and limited funds of today's senior citizen.

FSM 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.

FSM 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 assist employees in finding and solving problems of quantity food service. It includes characteristics of a good food service, and its place in the total education program with comprehensive overview of the principles of menu planning, purchasing, food preparation and service, equipment use and care, sanitation and safety, personal cleanliness and grooming, and the value of a good working relationship within the organization and with the school community. Emphasis is placed upon the need for greater knowledge in operating school food services, to insure maximum benefits to the children and the need for continuous training.

FSM 0518 Sanitation and Safety

The student will explore the scientific rationale for sanitation and safety practices which are enforced for group protection in institutions and food service facilities. The student will identify causative agents of food-borne illnesses and demonstrate preventive techniques by adhering to sanitation standards. Emphasis is placed on methods of accident and fire prevention.

FSM 0521 Food Service Apprenticeship II

The student will acquire knowledge and skills needed by a professional cook in the food service industry, including restaurant cookery; stocks, soups and sauces; vegetable preparation and cookery and other skills specified in the apprenticeship standards. Enrollment is limited to students who meet the standards prescribed by the National Apprenticeship Training Program of the Educational Institute, American Culinary Federation. The duration of the training program is three years. The program is comprised of three courses.

FSM 0525 Child Care Food Handler's and Manager's Course

This course is designed to offer child care food handlers and managers with information on sanitation; nutrition and meal planning; child development; accounting and record keeping; and food purchasing and service.

GMR 0310 Cashier/Sales/Checker

This course is designed specifically for job entry training and includes instruction in the proper finger method of recording amounts on a cash register; properly departmentalize sales; handle taxable items; process actual merchandise orders, handle cash, and balance cash drawers.

GRA 0310 Printing

This course is designed specifically for job entry training. This course consists of offset camera, platemaking, stripping, and small offset presses; letterpress composing, bindery and letterpress printing, including hand fed and automatic presses.

HEF 0101 Slipcover Construction

Course work includes instruction for homemakers in fabric selection, techniques of handling various fabrics, making cord, fitting cord to corners, and inserting zippers. Care of slipcovers is also included. This course is designed for persons already employed in the field, or in a related field, for supplementary instruction; however, intensive study could develop job entry level skills.

HEF 0104 Interior Design

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. It includes a study of the ways in which attractive and livable interiors can be planned in relation to individual and family

housing situations and incomes, choosing and combining line, 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.

HEF 0105 Advanced Interior Design

This course is designed as supplementary instruction for the person who has completed HEF 0104, Interior Design. It includes advanced study of the elements and principles of design.

HEF 0310 Drapery Construction

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. Course work includes instruction in choosing fabrics, construction of various types of curtains and draperies, and selection of hardware. A comparison of cost factors is also included. Intensive study could develop job entry level skills.

HEF 0312 Furniture Reupholstery

This course includes the selection of tools, materials and equipment; use of power equipment; dismantling of furniture; basic construction processes; fitting the muslin cover; planning and preparing the fabric platform cover; planning and preparing the panels, outsides and trimmings; pleated skirts, dust ruffles, and making cushions. This course is designed for persons already employed in the field, or in a related field, for supplementary instruction; however, intensive study could develop job entry level skills.

HEF 0313 Advanced Reupholstery

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. This course includes channeling, tufting, making skirts, repairing, and spot touch-up of furniture, color and color schemes, and headboards; however, intensive study could develop job entry level skills.

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 floors and floor coverings, interior painting, wallpapering, furniture care and repairs, 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, dust ruffles, pillow shams, ottomans, hassocks, wall hangings, lamps, lampshades, curtains, window shades, linens, waste baskets, storage boxes, candle making, candle holders, small braided 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

The course includes a combination of theory, laboratory experiences and community experiences. Major concepts include: planning, selecting and utilizing equipment, furniture, accessories and household textiles; furniture renovation; energy conservation; home improvements; and home maintenance. Concepts in management, safety, free enterprise, consumer and economic education are taught as they relate to instruction.

HOF 0010 Home Accessories for Seniors

This course is designed as an introduction to basic skills and techniques in making new, or re-working used, simple accessory items for the home. Project wall hangings, waste baskets, storage boxes, latch hook rugs, table runners, place mats, and other simple accessory furnishings in which an interest is expressed by the students.

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 in the occupational programs offered at the Downtown Campus. Following pretesting and assessment, the student will be provided with individualized instructional plan to upgrade mathematics and reading skills.

IDS 0011 Basic Skills II

Prerequisite: IDS 0010 or permission of the instructor. Corequisite: Enrollment in a non-college job entry training course offered at the Downtown Campus, or permission of the instructor. This course is designed to provide the basic academic skills necessary for completion of the second course in the occupational programs offered at the Downtown Campus. Following 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.

IEL 0309 Industrial Electricity I

Corequisite: IDS 0010. 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.

IEL 0310 Industrial Electricity II

Prerequisite: IEL 0309. Corequisite: IDS 0011. This course is a continuation of Industrial Electricity I. Instruction will include building wiring and electrical wiring practices.

IEL 0311 Industrial Electricity III

Prerequisite: IEL 0310. Corequisite: IDS 0012. This course is a continuation of Industrial Electricity II. Instruction includes AC and DC motors and commercial wiring.

IEL 0315 Construction Electricity

This course is designed primarily for apprenticeship instruction, and its contents 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.

IEL 0317 Electric Wiring

This course is designed primarily for apprenticeship instruction and its contents will include the proper procedure to install wiring systems and 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.

INM 0010 Home Management/Personal Safety for the Blind

This course focuses on the various abilities needed by blind adults for independent living. In the area of home management, the student will be introduced to problems of maintaining a home effectively, including budgeting, nutrition, and techniques allowing a blind person to cook safely and clean efficiently. In the Communication Component, the student may learn Braille, typing, the use of handwriting aids designed for the visually impaired and the use of electronic equipment. Personal safety is emphasized in orientation and mobility training which enables a person to move about the environment safely and to master skills necessary for independent travel.

INS 0210 Principles of Insurance

This course, designed specifically as supplementary training, will seek to develop principles that can be used in understanding insurance companies' contracts and practices. The approach will be essentially functional. Emphasis will be on the presentation of principles and explanations of practices. Methods of comparing the relative cost will be presented.

INS 0220 CLU - Investments and Family Financial Management

This course is designed specifically as supplementary training and includes a study of various aspects of investment principles and their application to family financial management. Included are the subjects of yields, limited income securities, growth factors, and analysis of financial statements. Also discussed are family budgeting, property insurance, mutual funds, variable annuities, and aspects of other investment media.

INS 0226 LUTC - Disability Income Insurance

This course is designed specifically as supplementary training and includes a study of the growing need for coverage; public awareness; advantage of being a switch hitter; steps in becoming an income replacement specialist; tax advantages of disability income insurance; and overcoming objections.

INS 0228 CLU - Pension Planning

This course is designed specifically as supplementary training and includes a study of the basic features of private pension mechanisms, including tax consideration, cost factors, funding instruments, profit-sharing plans and tax sheltered annuities.

INS 0229 CLU - Economics

This course is designed specifically as supplementary training and includes a study of economic principles, the government and banking institutions which have an effect on the national economy, national income, theory and application of price determination, business cycles, money and banking, international trade and finance, and problems of economic growth.

INS 0230 LOMA - Fundamentals of Life Insurance

This course is designed specifically as supplementary training and includes a study of the nature of modern life insurance, plans for life insurance, the level premium system, terms of the policy, legal aspects of life insurance, death and disability claims, health insurance, industrial insurance, group insurance and social security.

INS 0231 LOMA - Life Company Operations

This course is designed specifically as supplementary training and includes a study made of the different types of life insurance organizations, home office and field office organization, mortality tables, premium calculation, risk selection, re-insurance, governmental regulation and taxation, investments of life insurance companies, financial statements, and new ideas and planning in the business of life insurance.

INS 0232 LOMA - Legal Aspects of Life Insurance

This course is designed specifically as supplementary training and includes a study of how the life insurance contract is formed and made valid, the rights of the policy owner and beneficiary, and the life insurance contract in operation.

INS 0233 LOMA - Life Insurance Accounting

This course is designed specifically as supplementary training and includes a study of elementary commercial book-keeping, classifications of transactions, insurance entries, investment operations, punched card data processing, and fiscal period reporting.

INS 0234 LOMA - Economics and Investments

This course is designed specifically as supplementary training and includes a study of economics, income and growth, financial organizations, money and banking, income distribution, investment and security purchasing and purpose.

INS 0235 LOMA - Mathematics of Life Insurance

This course is designed specifically as supplementary training and includes a study of life insurance mathematics, compound interest, relation of mathematics to annuities, how to calculate premiums, reserves, dividends, and non-forfeiture values.

INS 0236 LOMA - Office Administration - Agency and Home Office

This course is designed specifically as supplementary training and includes a study of office organization, sales organization, office management, systems, data processing, office layout and personnel.

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 intended 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 collegiate level offering and is divided into six parts. Parts 3-7 are considered to be core subject areas and Part 8 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 gift transfers, and the effective use of life insurance toward minimizing financial problems. Note: The CLU Course 10 Examination must be taken last, or concurrently with any remaining examinations in the ten-course series for which a candidate needs credit.

INS 0256 CLU - Wealth Accumulation Planning

This course provides to persons currently employed or have previously been employed in the insurance field (Chartered Life Underwriters) an in-depth coverage of real estate investment, formation of limited partnership and tax shelter investments, and retirement planning. A student will gain additional knowledge and skills in planning for the living estate, reduction of the tax burden, protection of accumulated wealth, education for children and planning retirement.

LAE 0310 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 police patrol person. Specific areas of instruction include constitutional and criminal law, criminal evidence, court organization and procedures, patrol procedures, criminal investigation, police community relations, traffic control, juvenile procedures, civil disorders, first aid, defensive tactics and firearms training. Note: Course is restricted to individuals sponsored with intent of employment by area law enforcement agencies.

LAE 0416 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; crisis intervention; explosives and incendiary devices; forensic pathology and autopsy procedures; and tactical operations.

LAE 0417 Basic Evidence Technician Course

This course is designed to provide area police personnel supplementary specialized instruction required for qualification and assignment as an evidence technician. Specific areas of instruction include crime scene procedures; collection, preservation and identification of physical evidence; crime scene sketching; types of examinations; and photography.

LAE 0422 Tests for Intoxication

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 testing is 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.

LAE 0525 Police Instructor Techniques Course

This course is designed to provide supplementary specialized instruction of area law enforcement personnel. Specific areas of instruction include development of climate for student participation, factors related to student learning, role versus conceptual learning, the instructor's role, course development, demonstrations and use of training aid and resource material, and evaluation techniques.

LAE 0526 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 accident investigation, arrest procedures, crime scene procedures, criminal law, first aid, firearms, human relations, juvenile diversion, investigation, organized crime, police discretion, patrol techniques, search and seizure, traffic law enforcement, and uniform crime reporting.

LAE 0527 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 posses, police explorers and parking 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 0010 Business Management

This course is designed specifically as supplementary training for persons already employed in the field. It seeks to develop an understanding of economic and social environment

within which business functions. Practice in decision making and management functions is discussed, including financial, marketing, production, and legal matters. This is a ten-week course, meeting one night a week for three hours.

MAM 0012 Operating a Small Business

This course is designed as supplementary training for operators of small businesses. The course includes topics such as capital and finance, proprietorship, laws regulating business, taxation, management and organization, personal budgeting and cash flow, and marketing research.

MAM 0014 Distributive and Mid-Management Education Seminars

A series of seminars designed as supplementary instruction for persons already employed in such an area of interest 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 practices and problems in retail floral management, such as facility planning, merchandising, selling and markup, personnel relations, advertising, and new design techniques.

MAY 0312 Brick and Blocklaying

This course is designed as supplementary instruction for persons already employed in the field, or in a related field. The student will learn proper procedure 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 0315 Brick and Blocklaying

This course is designed primarily for apprenticeship instruction and its contents will include training 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 0310 Medical Assisting

The medical assistant course of study is an intensive course designed specifically for job entry training and planned to orient the individual to a multitude of basic skills in the physician's office. Examples of these skills are secretarial practices and procedures, examining room techniques, and laboratory procedures. This course requires 1,060 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 consciously 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 0803 Correlations in Clinical Laboratory Disciplines

This seminar presents for clinical laboratory professionals the clinical aspects of disease, pertinent laboratory data and the use of criteria in interpreting laboratory problems. The primary intent of the course is to expose participants to advances in a multiplicity of laboratory functions and improve their subspecialty skills and expertise.

MLS 0930 Panorama of Advances in Medical Technology

This course is a seminar on the normal and pathologic physiology of the varied elements of the blood. The student's knowledge of principles of medical laboratory science will be expanded and updated in this area.

MSH 0003 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 manipulative skills. This course is designed primarily for off-campus supplementary instruction.

MSH 0309 Industrial Machine Shop I

Corequisite: IDS 0010. This course is designed for job entry training in the construction and repair of all kinds of metal parts, tools, and machines, and in the operation of all machine lathes, milling machines, planers, shapers, and drill presses.

MSH 0310 Industrial Machine Shop II

Prerequisite: MSH 0309. Corequisite: IDS 0011. This course is a continuation of Industrial Machine Shop I and includes instruction in machining procedures for plumb bob, scriber, center drill holder, depth gauge, screw jack and die stock.

MSH 0311 Industrial Machine Shop III

Prerequisite: MSH 0310. Corequisite: IDS 0012. This course is a continuation of Industrial Machine Shop II and includes instruction in the fundamentals and programming of numerical controls.

MSH 0318 Automotive Machine Shop I

Corequisite: IDS 0010. This course is designed primarily to provide workers capable of performing the duties of an automotive machinist at job entry level. It includes training in cleaning, inspecting, grinding, drilling, honing and reassembling of automotive parts. Emphasis is on safe work habits, pride in workmanship, and accuracy.

MSH 0319 Automotive Machine Shop II

Prerequisite: MSH 0318. Corequisite: IDS 0011. This course is a continuation of Automotive Machine Shop I. Topics include machining connecting rods, bearing caps and cylinder walls, servicing pistons and brake drums and nondestructive testing.

MSH 0320 Automotive Machine Shop III

Prerequisite: MSH 0319. Corequisite: IDS 0012. This course is a continuation of Automotive Machine Shop II. Topics include crankshaft, flywheel and clutch plate service, engine lathe, milling machines and drill press operation and a practicum.

MSH 0390 EMP Machine Shop

This course is designed to meet the needs of employers and underemployed employees in the machine shop industries.

MTE 0006 Marine Technology - Introduction to Marine Technology

This course serves as an introduction to Marine Technology and includes basic instruction in shipbuilding nomenclature, ship structure, career opportunities, safety, blueprints and symbols, and mathematics. The major portion of this course consists of student rotation among the various specialties during which the student receives a combination of classroom and laboratory experience and makes a judgment as to which specialties he/she would like to receive advanced training.

MTE 0017 Marine Technology - Boatbuilding Specialty I

Prerequisite: MTE 0006 or permission of the instructor. This course is designed to help prepare for job entry level into the boatbuilding/repair industry and includes instruction in the wood, fiberglass and fastening materials used in the industry. The course is a combination of classroom and laboratory experience.

MTE 0018 Marine Technology - Boatbuilding Specialty II

Prerequisite: MTE 0017. This course is a continuation of Boatbuilding Specialty I. It is designed to help prepare for job entry level into the boatbuilding industry and includes instruction in basic boat repairs of wooden and fiberglass structure. Instruction includes planning, mounting and rough-in techniques for cabins and decks. This course is a combination of classroom and laboratory experience.

MTE 0028 Marine Technology - Electricity Specialty I

Prerequisite: MTE 0006 or permission of instructor. This course is designed for job entry level training in marine electricity fields and includes instruction in Basic DC Theory, AC Theory, small boat electrical systems and introduces AC and DC motors and generators used in the marine industry. This course is a combination of classroom and laboratory experience.

MTE 0029 Marine Technology - Electricity Specialty II

Prerequisite: MTE 0028. This course is a continuation of Electricity Specialty I. It is designed for job entry level training in the marine electrical field and includes instruction in reading schematic diagrams, use of wiring diagrams, DC and AC motor control operation, troubleshooting and repair of motor controls, distribution systems found aboard ships and marine cable identification. This course is a combination of classroom and laboratory experience.

MTE 0036 Marine Technology - Electronics Specialty I

Prerequisite: MTE 0006 or permission of the instructor. This course is designed to help prepare students for job entry into marine electronics and includes instruction in amplification, rectification, receivers, power supplies, transmitters, antenna systems, modulation systems, computer circuits and marine instrumentation systems. The course is a combination of classroom and laboratory experience.

MTE 0037 Marine Technology - Electronics Specialty II

Prerequisite: MTE 0036. This course is a continuation of Electronics Specialty I. It is designed to help prepare students for job entry into marine electronics and includes instruction in diagram analysis and interpretation, trouble-shooting and maintenance procedures. FCC rules and operating procedures are discussed. This course is a combination of classroom and laboratory experience.

MTE 0048 Marine Technology - Engines Specialty I

Prerequisite: MTE 0006 or permission of the instructor. This course is designed to prepare students for job entry level employment as a Marine Engine Specialist. Specific areas of instruction include the operation and overhaul of marine diesel engines, diesel and gasoline engine basic components, engine performance and cycle of operation, structural engine parts, intake, exhaust, cooling and lubricating systems, and engine assembly and run-in procedures. This course is a combination of classroom and laboratory experience.

MTE 0049 Marine Technology - Engines Specialty II

Prerequisite: MTE 0048. This course is designed to prepare students for job-entry level employment as a Marine Engine Specialist. Specific areas of instruction include: tune-up of marine diesel engines, troubleshooting marine diesel engine complaints, maintaining and repairing fuel systems in marine diesel engines, and marine outboard motor familiarization. This course is a combination of classroom and laboratory experience.

MTE 0058 Marine Technology - Metal Fabrication Specialty I

Prerequisite: MTE 0006 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 seams, machine and slab bending of metal plates and angles, the fabrication of flanges, the lay-out 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

Prerequisite: 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 tack welding required for fabrication of less common fittings using triangulation, parallel line and radial line development. This course is a combination of classroom and laboratory experience.

MTE 0069 Marine Technology - Pipefitting Specialty I

Prerequisite: MTE 0006 or permission of instructor. This course is designed for job entry level training in marine pipefitting and includes instruction in pattern layout, fittings, basic valves and gauges and geometric shapes. The course includes both classroom and laboratory instruction.

MTE 0070 Marine Technology - Pipefitting Specialty II

Prerequisite: MTE 0069. This course is a continuation of Pipefitting Specialty I. It is designed to prepare a student for job entry employment in pipefitting and includes instruction in basic welding and brazing, triangulation, bending, threading and testing processes and application of pipefitting. This course is a combination of classroom and laboratory experience.

MTE 0090 Marine Technology - Welding Specialty I

Prerequisite: MTE 0006 or permission of the 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, steel shapes, electrodes, welding positions, and weld testing. Air arc cutting and gouging and oxyacetylene equipment and use are also covered. This course is a combination of classroom and laboratory experience.

MTE 0091 Marine Technology - Welding Specialty II

Prerequisite: 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 practice in shielded metal-arc welding in the vertical position using E6010 and E7018 electrodes in mild steel plate. It will also cover oxyacetylene cutting. This course is a combination of classroom and laboratory experience.

MTE 0900 EMP Refresher Basics for Marine Technicians

This course is designed to provide reinforcement of basic knowledge needed in marine trade areas and includes instruction in shipyard/shipboard orientation, industrial safety, mathematics and blueprint reading.

MTE 0902 EMP Introduction to Metal Work

This course is designed to upgrade skills for individuals in marine pipefitting and metal fabrication and includes instruction in shop safety, tools and equipment usage, metal characteristics and steel shapes. The course includes a combination of classroom lecture and laboratory experience.

MTE 0904 EMP Basic Fabrication of Marine Heating and Air-Conditioning Ducts

This course is designed to upgrade skills for individuals in marine metal fabrication and includes instruction in the de-

velopment of common seams, layout and fabrication of ducts and flanges. The course includes a combination of classroom lecture and laboratory experience.

MTE 0906 EMP Basic Parallel Line Development and Fabrication in Metal Work

This course is designed to upgrade skills for individuals in marine metal fabrication and includes instruction in pattern layout and manufacture of piping branches and mitered elbows. The course consists of a combination of classroom and laboratory experience.

MTE 0908 EMP Basic Triangulation Pattern Development for Fabrication of Metal Work

This course is designed to upgrade skills for individuals in marine metal fabrication and includes instruction in measurement, scale, layout and fabrication using triangulation. The course includes a combination of classroom and laboratory experience.

MTE 0910 EMP Bending of Plates and Angles

This course is designed to upgrade skills for individuals in marine metal fabrication and includes instruction in machine and slab bending of metal plates and angles. The course includes a combination of classroom and laboratory experience.

MTE 0912 EMP Basic Oxyacetylene and Tack Welding for the Metal Fabricator

This course is designed to upgrade skills for individuals in marine metal fabrication and includes instruction in the basic arc welding and tack welding required for fabrication. The course includes a combination of classroom and laboratory experience.

MTE 0914 EMP Introduction to Boatbuilding

This course is designed to upgrade skills for individuals in boatbuilding trades and includes instruction in plan reading, tools and terminology.

MTE 0916 EMP Materials for Boatbuilding and Repair

This course is designed to upgrade skills for individuals in the boatbuilding/repair industry and includes instruction in wood, fiberglass and fastening materials used in industry. The course is a combination of classroom and laboratory experience.

MTE 0918 EMP Boat Repairs

This course is designed to upgrade skills for individuals in the boatbuilding industry and includes instruction in basic boat repairs of wooden and fiberglass structures. The course is a combination of classroom and laboratory experience.

MTE 0920 EMP Boatbuilding

The course is designed to upgrade skills for individuals in the boatbuilding 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 Joinerwork in Boatbuilding

This course is designed to upgrade skills for individuals in the boatbuilding industry and includes instruction in planning, mountings, and rough-in techniques for cabins and decks.

MTE 0924 EMP Introduction to Marine Electricity

This course is designed to upgrade skills of individuals in marine trades and includes instruction in basic DC theory 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 for individuals in the marine electricity field and includes instruction in the layout and installation of cable aboard ships. This includes a combination of classroom and laboratory experience.

MTE 0928 EMP Motors and Generators for Marine Industry

This course is designed to upgrade skills in the marine electricity field and includes instruction in the basic operation and repair of motors and generators used in the marine industry. The course includes a combination of classroom and laboratory experience.

MTE 0930 EMP Shipboard Electrical Systems

This course is designed to upgrade skills for individuals in the marine electrical field and includes instruction in the basic maintenance and repair of electrical systems found on small boats. The course includes a combination of classroom and laboratory experience.

MTE 0932 EMP Introduction to Marine Electronics

This course is designed to upgrade skills of individuals in marine electronics and includes instruction in theory, measuring devices, radio frequency wave propagation, capacitance, inductance, reactance 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 0936 EMP Troubleshooting and Maintenance Procedures in Marine Electronics

This course is designed to upgrade skills of individuals in marine electronics and includes instruction in diagram analysis and interpretation, troubleshooting and maintenance procedures.

MTE 0938 EMP Marine Electronic Digital and Computer Fundamentals

This course is designed to upgrade skills of individuals in marine electronics and includes instruction in digital electronic system theory and computer circuits. The course includes a combination of classroom and laboratory experience.

MTE 0940 EMP Operation and Overhaul of Marine Diesel Engines

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in theory of operation, disassembly procedures and overhaul. The course is a combination of classroom and laboratory experience.

MTE 0942 EMP Tune-Up of Marine Diesel Engines

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in Detroit, Cummins and Caterpillar engines. The course is a combination of classroom and laboratory experience.

MTE 0944 EMP Maintaining and Repairing Fuel Systems in Marine Diesel Engines

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in the repair of fuel systems in common diesel engines. The course is a combination of classroom and laboratory experience.

MTE 0946 EMP Troubleshooting Marine Diesel Engine Complaints

This course is designed to upgrade skills for individuals in the marine engine field and includes instruction in operating the simulator and troubleshooting engine complaints. The course is a combination of classroom and laboratory experience.

MTE 0948 EMP Marine Outboard Motor Familiarization

This course is designed to upgrade skills for individuals in the marine engine field and provides the basic skills required to service, maintain and overhaul outboard motors. The course is a combination of classroom and laboratory experience.

MTE 0950 EMP Shielded Metal-Arc Welding and Oxyacetylene Equipment for Marine Welding

This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shop and welding safety, tool and equipment usage, metal characteristics, steel shapes, electrodes, welding positions, and weld testing. Air arc cutting and gouging and oxyacetylene equipment and use are also covered.

MTE 0952 EMP Blueprint Reading and Welding Symbols for the Marine Welder

This course is designed to upgrade skills for individuals in the marine welding field and includes instruction on blueprint reading and welding symbols as they relate to the welding and fitting of structural assemblies.

MTE 0954 EMP Shielded Metal-Arc Welding, Flat Position for Marine Welding

This course is designed to upgrade skills for individuals in the welding area of shielded metal-arc welding in the flat position using E6010 and E7018 electrodes on mild steel plate. It will cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0956 EMP Oxyacetylene and Air-Arc Cutting and Gouging for Marine Welding

This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in oxyacetylene and air-arc cutting and gouging. This 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 provides instruction in shielded metal-arc welding in the horizontal position using E6019 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 E7018 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0962 EMP Shielded Metal-Arc Welding, Overhead Position in Marine Welding

This course is designed to upgrade skills for individuals in the marine welding field and includes instruction in shield

metal-arc welding in the overhead position using E6010 and E7018 electrodes on mild steel plate. It will also cover oxyacetylene cutting. The course includes a combination of classroom and laboratory experience.

MTE 0966 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 piping branches and mitered elbows. The course includes a combination of classroom lecture and laboratory experience.

MTE 0968 EMP Fittings Used in Marine Piping Systems

The course is designed to upgrade skills for individuals in marine pipefitting and includes instruction in types of pipe measuring and fastening methods for pipe. The course includes a combination of classroom lecture and laboratory experience.

MTE 0970 EMP Basic Valves and Gauges Used in Marine Pipefitting

This course is designed to upgrade skills for individuals in marine pipefitting and provides instruction in the function and installation of valves and gauges commonly used in piping systems. The course includes a combination of classroom lecture and laboratory experience.

MTE 0972 EMP Basic Bending, Testing and Threading Processes in Marine Pipefitting

This course is designed to upgrade skills for individuals in marine pipefitting and includes instruction in hydraulic bending, testing procedures and pipe threading. This course includes a combination of classroom lecture and laboratory experience.

MTE 0974 EMP Basic Welding and Brazing for Marine Pipefitters

This course is designed to upgrade skills for individuals in marine pipefitting and includes instruction in introductory tack welding procedures and sil-braze fittings. The course includes a combination of classroom lecture and laboratory experience.

MTR 0082 Preparation for Plate Certification

This course provides up-grading training in the welding field and presents technical information about the preparation required for plate certification using 3/8" mild steel plate. Related information includes equipment operation and weld quality.

MTR 0085 Preparation for Pipe Certification

This course provides up-grading training in the welding field and presents technical information about the preparation required for pipe certification using 6" schedule 80 steel pipe. Related information includes equipment operation and weld quality.

MTR 0101 Oxygen-Acetylene Welding

This course provides upgrading training in the welding field and presents technical information about oxygen-acetylene welding using 16 gage through 3/16" mild steel, related equipment operation and weld quality.

MTR 0105 Oxygen-Acetylene Brazing and Braze Welding

This course provides up-grading training in the welding field and presents technical information about oxygen-acetylene brazing and braze welding using 16 gage through 3/16" mild steel, 16 gage stainless steel and copper piping and fittings. Related information includes equipment operation and weld quality.

MTR 0122 Basic Gas Metal Arc Welding

This course provides upgrading training in the welding field and presents technical information on the basic gas metal arc welding fundamentals and welding safety. The training develops the manual skill necessary to make high quality gas metal arc welds in all positions on mild steel from 1/16" sheet to 3/8" plate single pass and multiple pass, using short circuit transfer.

MTR 0123 Gas Metal Arc Welding - Advanced

This course provides up-grading 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.

MTR 0124 Flux Cored Arc Welding

This course provides up-grading training in the welding field and presents a thorough technical understanding of the flux cored arc welding process and arc welding safety. Related topics include equipment operation and weld quality.

MTR 0126 Gas Tungsten Arc Welding Basic

This course provides upgrading training in the welding field and presents technical information on gas tungsten arc welding fundamentals and welding safety. The training develops the manual 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 direct and alternating current.

MTR 0144 Shielded Metal Arc Welding Pipe Downhill

This course provides up-grading 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 5g and 6g position, using cellulose (exx10) electrode and downhill travel.

MTR 0146 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 steel pipe in the 2g, 5g and 6g positions.

MTR 0147 Gas Tungsten Arc Welding (TIG) Pipe and Tubing

This course provides up-grading in the welding field and presents a thorough technical understanding of gas tungsten arc welding fundamentals, preparation and welding pipe and pipe welding defects.

MTY 0390 EMP Industrial Mechanics

This course is designed to meet the needs of employers and underemployed employees in the industrial mechanics field.

MTY 0395 EMP Hydraulics

This course is designed to meet the needs of employers and underemployed employees in the hydraulics industry.

NUA 0310 Nurse Assistant

This course is designed to prepare a non-professional worker with the fingertip 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 0512 Nursing Seminar

This seminar is designed to upgrade the skills of the Registered and/or Licensed Practical Nurse. The student will be introduced to current nursing trends and problems and will participate in the development of solutions in conjunction with instructors.

ORH 0010 Ornamental Landscaping

A course designed to upgrade the skills of landscapers, gardeners, and nursery workers, enabling them to keep abreast of the latest developments and techniques in their profession. The course also provides refresher training for Certified Critics and for reinstatement of expired certificates.

PAD 0010 Grant Writing and Management

This course is a workshop/laboratory course designed to give participants a comprehensive understanding of the wide variety of funding sources available to community-based private non-profit organizations, finely tuned capabilities in the skills and tools of grant development and management, and actual guided experience in the development of one or more grant proposals.

PDE 0317 Jacksonville Drywall Decorators 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 makeup and tinting. The paper hanging section covers materials and surface preparations. The drywall section covers tools and methods of application.

PPF 0309 Plumbing and Pipefitting I

Corequisite: IDS 0010. This course is designed to introduce the student to the plumbing trade and give necessary information including working conditions, responsibilities, and performance needed to enter the field at an apprentice level. Practical problems in theory and performance will enable the student to perform as a beneficial part of a plumbing team. Installation, assembly and repair of potable water, air, solar, and waste disposal systems as well as the necessary parts, material, and trade-related terms associated will be covered. Safety and applicable O.S.H.A. regulations will be an important part of all phases of instruction.

PPF 0310 Plumbing and Pipefitting II

Prerequisite: PPF 0309. Corequisite: IDS 0011. Plumbing and Pipefitting II is designed as a continuation of PPF 0309. Training at an intermediate level, the student will design potable water and sanitary drainage systems including the necessary isometric drawing of piping and hands-on assembly of both. Safety procedures related to the plumbing trade, as well as associated O.S.H.A. Requirements will be an integral part of all instruction.

PPF 0311 Plumbing and Pipefitting III

Prerequisite: PPF 0310. Corequisite: IDS 0012. Plumbing and Pipefitting III is designed as a continuation of PPF 0310. Students will have the opportunity to demonstrate previously attained skills while progressing to an advanced level of job entry ability. Repair of worn plumbing fixtures, plumbing code use, and plumbing estimating techniques will be the main focus of course content. Safety and O.S.H.A. requirements will be an important part of all material discussed.

PPF 0315 Plumbing and Pipefitting

This course is designed primarily for apprenticeship instruction and its contents include training in the assembly and installation of air, gas, water and waste disposal systems, including the cutting, reaming, and threading of pipe, caulking and wiping joints, and the installation of gas, water and sanitary fixtures and equipment with their supports, hangers, or foundations.

PPF 0390 EMP Plumbing

This course is designed to meet the needs of employers and underemployed employees in the plumbing industry.

PPF 0395 EMP Pipefitting

This course is designed to meet the needs of employers and underemployed employees in the pipefitting industry.

PRN 0310 Practical Nursing

This course of study is designed to prepare individuals within 12 months to share in giving direct care to patients in the hospital, nursing home, or home. A minimum of 1,320

hours is required to complete the program. Classes are admitted twice annually. 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 Test Pool Examination to qualify for licensure to practice as a Licensed Practical Nurse and to use the title of LPN.

PTR 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.

PTR 0015 Career Planning for Handicapped Students

This course is designed to assist handicapped students by enhancing their career planning skills and placement into FJC course(s) and/or competitive employment. The two-week course (45 contact hours) is offered all year. The three phases of the course include: Orientation and Career Exploration, Testing and Placement, 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, retouching prints and covering imperfections and in surface finishing of prints.

RES 0211 Real Estate Principles and Practices

This course is designed specifically as occupational preparatory training and is intended to orient students with the knowledge and understanding of legal and ethical principles necessary for the real estate profession to continue to elevate itself for the protection of the public and to enable the real estate practitioner to enjoy the privileges due to the practitioner by the Florida Real Estate Commission. This course, when successfully completed, fills the educational requirement enabling an individual to apply for the real estate salesman's state examination.

RMI 0110 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 shall consist of forty (40) hours of classroom instruction in life insurance, health insurance and annuities. A final examination covering life and health insurance will be given at the end of each course.

RTE 0010 Basic Radiologic Technology

This course is designed to include principles of radiologic technology with particular emphasis in the areas of radiation protection and radiation biologic effects. It is intended for persons who are currently or previously employed as X-ray technicians, subject to new licensure requirements in Chapter 10D-74, Florida Administrative Code.

SAM 0010 Supervisory Training

This course is designed as supplementary instruction for persons already employed in a related field. The course consists of planned learning experiences which include a study of the basic principles of supervision and how to apply these principles in practice. It covers supervision, human relations, job advancement, and the development of other supervisory skills.

SEM 0010 Home Economics Seminar

Home Economics Supplementary Instruction Seminars are a series of seminars designed as supplemental instruction for persons previously and/or currently employed in

clothing/textile/interior design or food-related operations which will be offered in response to industry and/or community demand. The time and meeting places of the seminars will vary according to the needs of the participants.

SEO 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.

SHM 0315 Sheet Metal

This course is designed primarily for apprenticeship instruction and its contents include training in fabricating, assembling, altering, repairing, and installing sheet metal articles and equipment.

SHM 0390 EMP Sheet Metal

This course is designed to meet the needs of employers and underemployed employees in the sheet metal industry.

SLS 0006 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, assertive communications skills, life directions and goals. Career, school and work options will be explored.

SLS 0335 Computer-Assisted Career and Job Search Guidance

This course will help students explore career options that lead to upgrading their present work status, alternative job opportunities and educational institutions that provide upgrading opportunities in the State of Florida. This course is taught through the use of the CHOICES career guidance computer and will require scheduled, on-line computer time.

SLS 0336 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.

STO 0310 Surgical Technician

This course of study is designed to prepare students in 10 months to function as a member of the surgical team in a hospital operating room under the direct and continuous supervision of qualified professional nurses and surgeons. The course consists of theory and practice in the application and principles underlying the care of patients in the operating room. A certificate will be awarded upon completion of the course. Particular emphasis is placed upon the skills involved in scrubbing and circulating during surgical procedures, and in the preparation and maintenance of sterilized and unsterilized supplies.

STS 0020 Medical Terminology

Medical Terminology is designed as supplementary instruction for persons already employed in a related field and is a study of the development of a medical vocabulary commonly used in physicians' offices. Emphasis is given to physiologic and anatomic terms and organic systems.

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 and transcription comparable to those in local business offices.

STS 0112 Intermediate Shorthand and Transcription

This course is designed for persons already employed in a related field, as supplementary instruction. The course will

require the student to review the principles of Gregg shorthand; to develop further the student's ability to spell and to punctuate; to develop command of the mechanics of English; to handle the problems of office dictation, and to teach efficient transcription techniques.

STS 0113 Advanced Shorthand and Transcription

This course is designed as supplementary instruction to integrate shorthand, English, and typewriting skills and to develop the student's ability in producing transcripts.

STS 0135 CPS Review Course

This course designed as supplementary instruction to prepare students to take the examination for Certified Professional Secretaries. A two-term 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 terms.

STS 0140 Word Processing - Magnetic Typewriter Keyboard

This course includes supplementary instruction in the function and use of the magnetic typewriter keyboard in the development of basic business documents. Students will learn to operate the automated equipment which includes record, playback, correct and revise documents. Instruction in the logging and filing systems for the automated equipment will be included.

STS 0309 Office Occupations I

Corequisite: IDS 0010. This course is the first of three sequential courses designed for job-entry level training in the field of office occupations and includes typewriting, business English, filing and office machines.

STS 0310 Office Occupations II

Prerequisite: STS 0309 or permission of the instructor. Corequisite: IDS 0011. This course is the second in a series of three courses designed for job-entry level skills in the area of office occupations and includes typewriting, business English, record keeping, and shorthand.

STS 0311 Office Occupations III

Prerequisite: STS 0310 or permission of the instructor. Corequisite: IDS 0012. This is the last course in a series of three designed for job-entry level skills in office occupations and includes typewriting, business English, record keeping, machine transcription and business mathematics.

TYG 0110 Basic Typewriting

This course in typewriting for business use is designed specifically as occupational preparatory training to assist persons to acquire mastery of the keyboard and to develop the ability to type personal and business letters accurately and in good form.

TYG 0112 Advanced Typewriting

This course is designed as supplementary instruction to develop sufficient skills, techniques, and knowledge in the use of the typewriter for the student to work in a business office, in a clerical or stenographic position.

WEL 0309 Welding Basic

Corequisite: IDS 0010. This course is designed specifically for job entry training 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 oxyacetylene flame cutting and air-arc gouging.

WEL 0310 Welding Intermediate

Prerequisite: WEL 0309. Corequisite: IDS 0011. This course is a continuation of Welding Basic. Instruction will focus on advanced shielded metal arc welding, basic gas metal arc welding and basic gas tungsten arc welding.

WEL 0311 Welding Advanced

Prerequisite: WEL 0310. Corequisite: IDS 0012. This course is a continuation of Welding Intermediate. Instruction includes pipe welding nomenclature, weld quality, uphill pipe procedures and preheating and interpass heat treatments.

WEL 0390 EMP Welding

This course is designed to meet the needs of employers and underemployed employees in the welding industry.

High School Diploma, GED and Adult Basic Education Courses

AAC 0131 Bookkeeping High School Cr. 1

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.

ANA 0001 Anatomy and Physiology (with Lab) High School Cr. 1

Introduction to the organization of the structure and functional characteristics of man. A study of the morphological changes which occur from a cellular and subcellular level to the whole organism.

APC 0015 Business English I High School Cr. 1

Corequisite: TYG 0110. Comprehensive review of grammar, punctuation, spelling and vocabulary. Includes writing of various types of business communications - reports (research and oral presentation), letters and memos. Develops appreciation for broad range of language skills - listening, reading and research.

ART 0003 Drawing and Painting I High School Cr. 1

A study of the fundamentals of drawing and painting, concepts of drawing principles and composition, and a study of techniques.

BDP 0100 Introduction to Computer High School Cr. 1/2

The purpose of this course is to provide an overview of computers in today's world: what they are, what they do, how they work, the hardware involved, the necessary components of an "information system," the need for accuracy and controls, the most common languages, the most common business applications, and an understanding of the basic terminology.

BDP 0200 Computer Applications High School Cr. 1/2

The purpose of computer applications is to introduce students to the care and uses of microcomputers and to give them an opportunity for as much "hands-on" experience as possible. The content includes, but is not limited to simple programming and the use of commercially available software.

BIO 0005 General Laboratory Biology High School Cr. 1

This course is designed to give students an introduction to the origin, development, structure, function and distribution of living things. An integral and required part of this course will be the laboratory section, which will provide "hands on" experiences in familiarizing students with organisms, processes and principles, as well as providing activities that will acquaint them with scientific procedures and equipment.

BLC 0001 Afro-American History High School Cr. 1

This course is designed to provide evidence that the culture of Afro-Americans is one in which all Americans can take pride. It is hoped that black students will be aided in their development of self worth and dignity.

BOT 0010 Botany (with Lab) High School Cr. 1

This is an introductory course in plant biology. Topics covered include structure and function at cellular and organismal levels; photosynthesis and respiration; genetics and reproduction; plant diversity, especially among higher plants; classification; factors which influence plant growth; requirements for growth; life cycles; plant ecology; and uses of plants by humans.

BUS 0001 General Business High School Cr. 1

A non-vocational course intended to provide the adult student with a basic understanding of general business practices as they relate and have application to the everyday business affairs of the lay citizen.

CGC 0011 Child Development, Guidance and Care High School Cr. 1

A study of the child from prenatal through pre-school age with emphasis on physical, social, emotional and mental development. Cultural and environmental influences on the child will also be incorporated into this course.

CHE 0001 Chemistry I High School Cr. 1

Course covers the areas of elements and compounds, oxygen and hydrogen, water and solutions, carbon and its oxides, and acids, bases and salts.

CLT 0320 Clothing and Textiles High School Cr. 1/2

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, selection, use, and care of modern sewing and pressing equipment, completion of a simple garment, and selection of suitable accessories.

CMP 0506 Fundamentals of Food Management, Production and Services High School Cr. 1

This course is designed to provide students with competencies basic to a cluster of occupations in food management, production and services. The student will acquire instruction and learning activities in a laboratory setting using hands on experiences with the tool and materials in accordance with current practices in the trade.

DRA 0001 Drama I High School Cr. 1

Planning and execution of production functions: scene construction and painting, props, costuming, lighting and other full technical responsibilities.

DRA 0002 Drama II High School Cr. 1

This course provides intermediate development in the study and practice of theater arts. The content includes instruction in reading and interpretation of dramatic literature. Students will be introduced to techniques and mechanics of acting including the following: scenery construction, costume and lighting design, as well as other features of stagecraft; character analysis and portrayal; interpretive study of plays; and production of plays.

DRT 0101 Drafting, Mechanical High School Cr. 1

An introduction to the broad field of drafting as used in everyday living, architecture, engineering, and construction,

for general technical use. The laboratory work provides opportunities for students to learn to make and use drawings. It includes the uses of drawings in industries and occupations such as sheet metal, machine shop, plumbing, electricity and electronics.

ECP 0001 Economics High School Cr. 1/2

This course will provide 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 roles as producer, consumer, saver, investor, resource owner, voter, and taxpayer.

ECY 0001 Environmental Science High School Cr. 1

This course is designed to give the student insight into the causes, problems and solutions of air, water, and noise pollution. The overall theme of the course is making the student aware of the delicate ecological balance which pollution control attempts to maintain. Upon successful completion of this course, the student should have sufficient knowledge in the area of environmental control to function as a responsible citizen.

ENC 0007 Writing Review and Remediation for CLAST

This course is designed to meet the needs of Associate in Arts and Associate in Science degree students to further their mastery of the writing skills as related to the College Level Academic Skills Test (CLAST).

ENG 0001 English I High School Cr. 1

This course is designed to meet the needs of high school students and adults to further their mastery of basic concepts of English grammar.

ENG 0006 English II High School Cr. 1

A course in grammar and usage, designed to introduce students to grammar, sentence building, correct usage, and punctuation. It is further designed to provide a quick recapitulation of the elements of language.

ENG 0007 English III High School Cr. 1

This course provides a programmed approach to mid-level high school grammar and usage. An expanded study is provided of the basic parts of speech, the role of modifiers, effective sentence structure, subject verb agreement, all phases of punctuation, and related grammatical techniques.

ENG 0008 English IV High School Cr. 1

This course provides an in-depth study in grammar and usage. Sentence patterns - simple, compound, and complex - are explained along with other grammatical techniques leading to smooth sentence structure. Solutions are offered to the more advanced problems often related to effective use of the parts of speech.

ENG 0010 Fundamental Basic Skills in Communications High School Cr. 1

This course is designed to develop the student's skills in practical writing. The student will learn how to fill out applications, prepare a resume, write business and social letters, prepare a bibliography, write and comprehend ads in newspapers, and other important types of writing needed for success in school, on the job and in social life.

ENG 0014 Communication Skills

This course will provide preparatory and remedial assistance to adult high school students who have not passed the State Student Assessment Test, Part II (SSAT II). It is comprised of eight (8) reading skills modules and three (3) writing skills modules, one for each communication skill defined by State Board Regulations. Students who are preparing to take the test for the first time will complete all

eleven modules; those who need remediation will complete only the modules corresponding to those skills in which they are deficient.

ENG 0015 Reading I

High School Cr. 1

A diagnostic, prescriptive course in reading designed to begin at the student's level in rate and comprehension. Sound-symbol relationships, words in context, structural analysis, sight words, and dictionary pronunciation and meaning are stressed in building vocabulary. Detecting sequence, following directions, and recognizing topics and main ideas are studied in building reading comprehension. Instruction is conducted individually and in groups. A wide variety of machines and materials are available to achieve a grade level of 8.5 in reading.

ENG 0016 Advanced Reading

High School Cr. 1/2

This is a diagnostic, prescriptive, advanced reading course designed to increase reading speed and further improve reading skills and comprehension.

ENG 0017 Reading II

High School Cr. 1

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. Reference sources, the use of the library, the SQ3R study method, and outlining, are stressed for use in the content areas. Group and individual instruction and a variety of machines and materials are available to achieve a grade level of 10.5 in reading. Prerequisite: Reading Techniques I (Basic) or equivalent grade level of 8.5 in reading.

ENG 0021 Writing I

High School Cr. 1/2

Prerequisite: ENG 0006 or its equivalent. This course provides an organized study of both sentence and paragraph structure. These are shaped into larger patterns via written assignments. Emphasis is placed on form and content as well as manuscript preparation. Other areas of concentration are the following: diction, coherence and transition, mechanics of grammar and punctuation and spelling. Also included are the skills needed for selecting and limiting a topic, arranging support, outlining, drafting, and revision.

ENG 0022 Writing II

High School Cr. 1/2

Prerequisite: ENG 0021. This course extends the development of skills introduced in Writing I. It focuses on refining exposition and introduces analysis and persuasion. In addition, tone, syntax 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.

FMC 0321 Clerk-Typist

High School Cr. 1/2

Prerequisite: STS 0003. 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 to 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 telephone and telegraph services.

FRE 0001 French I

High School Cr. 1

This course is adapted to the needs and interests of adults who wish to acquire a speaking and oral comprehension ability in introductory French.

FRE 0002 French II

High School Cr. 1

This course, a continuation of FRE 0001, 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.

GEO 0001 World

Geography

High School Cr. 1

A general course in geography which includes a study of the physical, economic, political, and cultural aspects of impor-

tant geographic areas and people, and their influence on world conditions and problems.

GER 0001 German I

High School Cr. 1

This course is adapted to the needs and interests of adults who wish to acquire a speaking and oral comprehension ability in introductory German.

HEF 0103 Fundamentals of

Interior Design

Services

High School Cr. 1

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 line, 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.

HEN 0060 Health I, Life

Management

Skills

High School Cr. 1/2

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.

HEN 0061 Health II,

Personal

Health

High School Cr. 1/2

Prerequisite: HEN 0060. This course is a continuation of Health I, Life Management Skills and continues the study of health as it applies to the individual students, their families and the larger community in which they live. The course provides students with knowledge and skills necessary for making sound health decisions.

HIS 0004 World

History

High School Cr. 1

A survey of European and Asiatic History. Explains the world today by showing the political, economic, and social development in the United States from Colonial days to the present.

HIS 0005 American

History

High School Cr. 1

Emphasis is placed on political, economic, and social development of the United States from colonization to the present.

HUM 0004 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 1500's. 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.

HUM 0005 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.

IDS 0001 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.

IDS 0003 General Education

Instruction in general education subjects, includes elementary and secondary levels. This offering is designed to accommodate the needs of a class which consists in part of individuals who are on the high school level.

IDS 0004 Academic Skills Review

Intensive review is given to mathematics, reading, and writing for students who require assistance in meeting the entry level competencies for the Developmental Education Link Through Achievement (DELTA) Program College Credit Track. An individual educational plan is developed for each student in the subject(s) identified in order to allow each student to move ahead as rapidly as possible.

IDS 0005 High School Review

An intensive review of the four major academic areas of English, mathematics, social studies, and science on the secondary level in preparation for GED examinations that lead to the high school equivalency diploma.

IDS 0007 GED Testing Skills Seminar

This course provides critical, to-the-point information about the High School Equivalency Examination to persons who have enrolled to take the test at the next available date. 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, statistics regarding the exam, and actual brief testing experiences, guidelines for successful test-taking in general, and an opportunity to discuss any questions they may have about the examination.

ITA 0001 Conversational**Italian I High School Cr. 1**

This course consists of pronunciation, elements of grammar, simple conversation exercises, reading, and composition. Visual and auditory aids are employed.

LAT 0001 Latin I High School Cr. 1

This course is designed to develop a basic vocabulary, proper pronunciation, and correct grammatical patterns.

LAW 0002 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 other aspects of law.

LIT 0014 World Literature High School Cr. 1

This course is arranged topically. Authors are contemporary Americans and all types of literature are included. Although none of them is considered a prerequisite for another, this course is regarded as the first in the "Adventures" series. A student will be required to read a selected novel and to submit a research paper.

LIT 0015 American Literature High School Cr. 1

This course is an anthology of American literature. There are two major emphases. One is topical. The other concentrates on selected authors. A student will be required to read a selected novel and to submit a research paper.

LIT 0016 British Literature High School Cr. 1

This florilegium is not limited by time, place or type. It is an eclectic selection of writers from the ancient to the present and from many countries. Included are short stories, novels,

plays, poems and non-fiction. Readings are on a more mature level than Literature II. A student will be required to submit a research paper.

MAT 0001 General Mathematics III High School Cr. 1

A course designed to satisfy the needs of individuals whose interests require a knowledge of modern general mathematical skills and concepts.

MAT 0002 Business Mathematics I High School Cr. 1

This course covers problems involving proprietorship, sales, profits and losses, payroll, simple interest and real estate, leading to work with integers, fractions and decimals commonly used in business, insurance, bonds, compound interest, and corporation and financial statements.

MAT 0003 Pre-Algebra High School Cr. 1

This course is designed primarily for those who wish to have an orientation to an understanding of the basic concepts and terminology of the new mathematics program being taught in the elementary and junior high schools in Florida.

MAT 0004 Algebra I High School Cr. 1

An introduction to algebra with emphasis on fundamentals, the solution of equations, and the application of equations to everyday problems.

MAT 0005 Algebra II High School Cr. 1

Continuation of Algebra I with emphasis on fractions, fractional equations, quadratic equations, elementary trigonometry, ratio and proportion, and radicals.

MAT 0007 Geometry High School Cr. 1

A course dealing with geometric figures in a plane surface in which construction and deductive reasoning with triangles, perpendicular and parallel lines, polygons and the circles are emphasized. Special emphasis is placed on congruent triangles.

MAT 0008 Fundamental Mathematics II High School Cr. 1

A course designed to ensure competency in computation with integers, fractions, and decimals. Practical application of percentage and measurements, including the metric system, is stressed.

MAT 0009 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. Also included are problems involving proprietorship, payrolls, sales, discounts, simple interest, compound interest, financial statements and profits or losses.

MAT 0011 Mathematics Skills

This course will provide preparatory and remedial assistance to adult high school students who have not passed the State Student Assessment Test, Part II (SSAT II). It is comprised of thirteen (13) modules, one for each mathematic skill defined by State Board Regulations. Students who are preparing to take the test for the first time will complete all thirteen modules; those who need remediation will complete only the modules corresponding to those skills in which they are deficient.

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).

MUS 0007 Chorus I High School Cr. 1

A course in both individual and group singing, with emphasis on group vocal experience that may be useful to the individual who participates in community musical activities.

ORI 0002 **Employability Skills** **High School Cr. 1/2**
 The purpose of this course is to provide 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.

PET 0100 **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.

PHS 0001 **General Science** **High School Cr. 1**
 An introductory survey course designed to acquaint the student with both the physical and biological sciences.

PHS 0003 **Physical Science (with Lab)** **High School Cr. 1**
 A course normally given for high school credit, 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.

PHS 0004 **Earth/Space Science** **High School Cr. 1**
 This course is a study of the planet earth, the earth's changing surface, and the earth's atmosphere.

POS 0003 **Civics** **High School Cr. 1**
 This course deals with the structure and function of government at the local, state, and national levels.

POS 0004 **Americanism Vs. Communism** **High School Cr. 1/2**
 An analysis of American Government, democratic principles and the basis of communism.

POS 0005 **Americanism Vs. Communism** **High School Cr. 1**
 An analysis of American Government, democratic principles and the basis of communism. Each student must give an oral report in class and complete a written report on a topic approved by the professor.

POS 0008 **American Government** **High School Cr. 1/2**
 This course includes a study of such topics as the constitution; legislative, executive and judicial branches, and functions of national, state and local government; finance and taxation; national defense; health education and welfare; elections; and citizenship.

PSY 0050 **Psychology** **High School Cr. 1/2**
 This course has been designed to acquaint 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.

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).

SOC 0002 **Sociology** **High School Cr. 1/2**
 This course includes the study of cultural influence on our society, the forms, institutions, and functions of human groups, and the various types of individual and group relationships.

SPA 0001 **Spanish I** **High School Cr. 1**
 Elements of grammar; pronunciation, elementary conversation, and reading of simple Spanish texts.

SPA 0002 **Spanish II** **High School Cr. 1**
 Review of grammar, with conversation and composition, and reading of Spanish texts.

STS 0003 **Shorthand, Personal** **High School Cr. 1/2**
 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 record keeping in community organizations, and other personal use activities.

TYG 0102 **Typewriting, Personal** **High School Cr. 1/2**
 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.

Community Instructional Services Courses

The following is a list of courses which are offered to assist citizens in coping with problems relating to the areas of environment, health, safety, human relations, government, child rearing and consumer economics.

All of these courses are not offered every term, so interested persons should check the Continuing Education class schedule published in the local newspapers a few days before the beginning of each term.

Classes are scheduled in various locations throughout the area including the four FJC campuses, community schools and other off-campus centers.

Registration is on a first-come basis.

ART 0010 **Fundamentals of Art for Older Adults**
 This course is designed for senior adults. Instruction will be provided in the fundamentals of arts, 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, Cray-pas, pencils, pen and ink, oils, acrylics, watercolors, pastels, or even collage.

ART 0011 **Drawing for Older Adults**
 This course is designed for senior adults. It is an introduction to the basic disciplines of drawing, using charcoal, pencil, pen and ink, Cray-pas, pastels, and colored pencils.

ART 0012 **Watercolor, Acrylic, Oil Painting for Older Adults**
 This course is designed for senior adults. The media used in this course is limited to oil, acrylic, and watercolor. Instru-

tion will be provided in techniques of watercolor, acrylic and oil painting and in color theory. It will be helpful if the student already has some experience using fundamentals of art; however, instruction will include drawing and other basics.

CED 0005 Consumer Education Law

This course is designed to provide low-income residents with basic facts regarding the laws of daily living in a community. It has been organized to interpret the law in a comprehensive and easily understood manner. It will deal primarily with the laws that govern the lives of low-income and under-educated citizens. The course will assist these citizens to know what local help is available to them. This course is also designed to promote positive attitudes toward and involvement in utilization of the American free enterprise system as it deals with land, people, organization, and government.

COP 0001 Community Emergency Preparation

This course is designed to prepare individuals for rendering essential community services on a voluntary basis in time of serious emergency or disaster.

CRW 0010 Personal Life History Writing

This course is designed for older adults. The students will learn to write their personal life histories through three components: reminiscence, instruction, and preparation of material. The students will be guided through remembering their past, cataloging these memories into a filing system, using old photographs, writing the first paragraph, writing one experience, writing expanded stories, compiling a table of contents and index, layout of material, printing preparation, duplication and distribution.

ECO 0002 Personal Money Management

This course is designed to assist adults in handling their day-to-day and long-term financial affairs. Course emphasis is on subjects important in personal money management. Included are budgeting techniques, combating inflation, types of bank accounts, borrowing and use of credit, types of investments, taxation, and retirement and estate planning.

ECO 0004 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, Basic Clothing Instruction, Advanced Clothing Instruction, Food Preparation, Nutrition.

ECO 0005 Getting It All Together on a Limited Income

This course is designed to assist persons in managing their lives and handling the stress involved in surviving on a very limited income. Practical information and discussions will cover topics such as smart shopping, budgeting, parenting, resolving conflict with neighbors, caring for your body, and launching a plan of action for life improvements.

ECO 0010 Career Assessment and Guidance

An intensive eighty-hour class to aid individuals with immediate need to make a decision about returning to school, work or both. Emphasis will be on developing self respect and confidence, assertive communication skills, life directions and goals so that students take responsibility for their lives and become self-supporting. Resume writing, career fields, job training, job search, and interview techniques will be covered.

ECY 0006 Everything You Want To Know About Solar Energy and More

This course is designed to inform the general public of the development and uses of solar energy to provide insight for the general public to know what is available from solar energy and have a general understanding of the subject.

ESY 0003 Safety Education

This course is designed to cover the principles and information related to individual, home, and public safety.

EVR 0010 Stress Management

This course exposes students of all ages to an understanding and appreciation for the effects of environmental and personal stress. Stress-related disorders, their causes and controls, and numerous stress management techniques will be discussed from the lay perspective. The primary objective of this course is to enable the students to assume an active role in the reduction of unnecessary stress and anxiety in their daily lives. An extensive bibliography of suggested readings will be provided.

FAR 0005 Teaching Your Children About Sex

A course designed to enable parents and prospective parents to deal more effectively and honestly with children's questions about their own sexuality.

GRA 0010 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 serigraph. Drawing, printing, matting, and framing will be included.

HEN 0002 Personal Safety

This course is designed to provide skills, knowledge, training and information in securing one's personal safety in the home as well as self-defense and street safety.

HEN 0003 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.

HEN 0004 Early Pregnancy Preparation Class

This course is designed for mother-to-be in the early months of pregnancy. The course will cover exercises, physical fitness, nutrition, and baby care.

HEN 0005 Education for Parenthood Refresher

This is a four-week course designed for expectant couples who have previously taken the Education for Parenthood course during an earlier pregnancy. It provides a review of the relaxation and breathing techniques to be used during labor and delivery, as well as an introduction to any recent developments in childbirth education.

HEN 0006 Continuing Education for Parenthood

A course designed to help new parents cope with the unexpected problems which arise as a result of a new baby, including child development, sibling problems, illnesses, family adjustments, and baby care. No one particular course of action is recommended, but many options are presented to the couples. Open discussion and exchange of ideas is encouraged.

HEN 0007 Creative Activity in the Nursing Home

This course is designed with the needs of nursing home residents in mind. It includes a variety of creative activities which help keep hands, 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, remotivation, and use of leisure time.

HEN 0009 Preparation for Cesarean Childbirth

A series of classes designed to meet the needs of couples anticipating a Cesarean delivery and to promote family-

centered Cesarean care. Course material will include discussion of emotional needs, nutrition, anatomy and physiology of pregnancy and the Cesarean birth techniques to use for the birth and after the delivery, and adjustments during the postpartum period.

HEN 0010 Basic Cardiac Life Support

This course is designed to teach one how to apply cardiopulmonary resuscitation. Basic cardiac life support is the new name given cardiopulmonary resuscitation. It is that particular phase of emergency cardiac care that either, 1) externally supports circulation and respiration; or 2) prevents a circulatory or respiratory arrest or insufficiency through prompt intervention. Any trained person may apply B.C.L.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 our own community EMSA 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.

HEN 0012 Cardiac Rehabilitation Self Care

This course is designed to educate the individual who has suffered an acute myocardial infarction, post-operative coronary artery bypass, surgery, or who has been determined a high coronary risk. It also provides education to family members and helps improve the quality of life for those involved with the program.

HEN 0014 Physical Management and Stress Alleviation

A therapeutic course designed for use in adult institutions. Its purpose is to instruct students in methods of physical maintenance and stress reduction or alleviations. The course will include instruction in body awareness, fine and gross motor activities, ways of dealing with stressful situations, and practical usage of the various methods taught.

HEN 0015 Taking Care of Your Body

A course which explores matters 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 medicine chest, health careers and cardiopulmonary resuscitation.

HEN 0030 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.

HEN 0035 How to Stop Smoking in Five Days

This course is designed to demonstrate how an inveterate smoker can overcome the habit and stop smoking cigarettes by following a self-imposed five-day plan.

HEN 0040 A Growing Problem: Drug Use and Abuse

This course is designed to raise the community's awareness and understanding of the problem of drug abuse. This will be accomplished by providing information concerning the magnitude of the problem of drug abuse, the legal aspects of the problem, and signs and symptoms of the drug abuse, as well as the problem of drug abuse in women, youth and senior citizens. Information relative to prevention and treatment of the problem will be included in this course.

HEN 0050 Dynamics of Alcoholism

This course is designed to introduce the student to the problems of alcohol dependency. Topics will include the medical, psychological and social implications of alcoholism. Prevention and treatment issues will be covered. Alcohol depen-

dence among women, the elderly, blacks and adolescents will be examined. The impact of alcoholism on job efficiency and relations with co-workers and others will also be considered.

HEN 0055 Total Wellness: A Holistic Approach to Good Health

This course is designed for senior adults stressing the importance of caring for one's own health, and assuming the responsibility. The course emphasizes the total 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.

HES 0005 Crime Prevention

This course is directed toward the reduction and prevention of crime in neighborhood 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.

HIS 0010 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 roots will be emphasized from the pre-Greek period through the "Middle Ages", the Industrial Revolution, and 19th and 20th century developments in European, African, American and some other cultures.

MUS 0010 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.

MUS 0011 Community Orchestra for Older Adults

This course is designed for senior adults. It provides an opportunity for older musicians to practice and performing group instrumental musical activities. It will accommodate people who want to learn to play an instrument as well as people who want to improve their existing instrumental skills. Any instrument is welcome; however, participants must provide their own. Public performances will be given periodically.

PEA 0001 Self-Defense for Women

This course is designed primarily for women who want to learn the art of self-defense. Conditioning exercises, safe falling, and defensive techniques will be stressed. Training and information related to preventative measures to assure safety are included.

PEA 0002 Playground Supervision

This course covers the basic instruction and concepts that parents or teachers need in guiding the child's mental, social, and physical development. It deals with after-school playground supervision of games, dances, materials, progression, and techniques in teaching games and rhythmical activities to pre-school and school age children.

PHI 0004 Attitudes 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 centuries, humans have thought about death, speculated about immortality and expressed their feelings in a wide variety of ways. The question of death has taken on new dimensions in our century—a time when life processes can be supported by machines and 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 funeral arrangements can be prepared more expeditiously and meaningfully.

PSY 0004 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 experience of self, others, and environment through heightened appreciation of here-and-now reality; training and practice in emotional self-support and conflict resolution utilizing Gestalt and Transactional Analysis approaches.

PSY 0006 Skills for Parents

This course will emphasize how to communicate better with your children (and other people, too). Some of the skills that will be covered are how to really listen, how to communicate your feelings, how to solve average problems in the family, and become prime trainers, educators, and enrichers of your children.

PSY 0007 Mental Health First Aid

This course is to teach the student 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.

PSY 0009 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, listening habits, peer group relationships and coping skills necessary to succeed in school.

PSY 0010 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 topics 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.

PSY 0011 Assertive Communication Training I

The course includes the theory and practice of assertive behavior; awareness of one's interpersonal rights; distinguishing among non-assertive, assertive and aggressive responses; practicing simple assertions as well as emphatic, negative feelings; and confrontive assertions and other interpersonal problems relating to coexistence and brotherhood.

PSY 0015 Pre-Release Program for the Incarcerated

This pre-release program has been created to offer guidance and counseling to the incarcerated in transition from confinement to freedom. This program will provide the means for reintegrating and readjusting the offender back into the community.

PSY 0030 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.

PSY 0035 Survival: 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 op-

portunity to deal with issues such as crisis, loss, loneliness, anger and guilt, and finding new strengths. Options for referral services will be presented.

PSY 0040 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.

SOC 0005 Education for the Aging

Courses are offered under this title which are designed to provide middle-aged and older adults with information that will help them cope with the problems of aging. Information on pre-retirement planning, the psychological aspects of aging, the role of the aged in the modern world, and courses dealing with health, housing, financial planning, and worthy use of leisure time will be explored. Implications of current social, scientific, economic, and political developments on the older citizen are studied.

SOC 0007 Interpersonal Relations for the Handicapped

This course is designed to teach the handicapped person appropriate social and sexual behavior for everyday living in our society. The students will receive instruction in etiquette, hygiene, social roles and relationships, authoritative relationships, and dating, ramifications and implications.

SOC 0009 Parents of the Handicapped

This course is designed to provide parents with information beneficial to them in rearing 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.

SOC 0010 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 a 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 introduced will include banking, establishing credit, taxes, installment buying, insurance, real estate, wills and trusts.

SOC 0020 Public Forum

The public forum will provide an opportunity for interested citizens to hear specialists speak on pending community problems and to have the opportunity of expressing themselves concerning these problems.

SOC 0025 Opening Doors For The Widowed

Course discussions deal with specific topics to help the widowed cope with the emptiness of widowhood and reaffirm 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.

SOP 0001 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.

SOP 0002 Leadership Training

This course is designed to develop skills in group or community leadership. It covers techniques of group work and group dynamics, effective speaking, and how to conduct a meeting.

SOP 0003 Parliamentary Procedure

This course includes study and practice of the principles and rules governing deliberative assemblies. It is designed to benefit the presiding officer and member alike in participation in local government, communication with public officials, and ensuring each individual's rights.

Recreational Courses

Florida Junior 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.

AAC 0810	Personal Income Tax Seminar	DRA 0810	Acting for Fun and Self Expression
AIO 0010	Aviation Ground School-Private Pilot	DRA 0811	Art of the Amateur Magician
AIO 0014	Aviation Ground School-Instrument Rating	DRA 0812	Introduction to Theatre for Children
APD 0810	China Painting	ENG 0811	Letter Writing
APD 0811	Ceramics I	ENR 0810	Motorcycle Care and Repair
APD 0812	Ceramics II	ENR 0815	How To Service Your Small Engines
APD 0813	Pottery	FMT 0810	Modeling I
ART 0810	Arts and Crafts	FMT 0811	Modeling II
ART 0811	Decoupage	FON 0001	Food for You
ART 0812	Watercolor Painting	FON 0005	Health and Weight Control
ART 0813	Painting, Naturalism to Abstract	FON 0101	Gourmet Foods
ART 0814	Shell Craft	FON 0108	Microwave Cooking
ART 0815	Metal Sculpture	FON 0105	Elegant Entertaining
ART 0816	Macrame I	FON 0810	Adventures in Dining
ART 0817	Macrame II	FON 0811	Oenology: The Study of Wines
ART 0818	Creative Art for Children	FON 0812	Eat Smart
ART 0820	Stained Glass Window Construction	FSM 0310	Cake Decorating
ART 0822	Creative Cartoons	GRA 0810	Graphoanalysis (Handwriting Analysis)
BCN 0800	Before You Build	GRA 0811	Calligraphy
BCN 0805	Remodeling	HEF 0003	Flower Arranging
BCN 0810	House Building	HEF 0810	Upholstery
BIO 0810	Genealogy - Discovering Your Family Heritage	HEN 0810	Yoga
BUN 0810	TV Communications	HOM 0002	Clothing Selection
CCL 0810	Introduction to Numismatics	HRT 0810	Basic Home Building
CLT 0111	Sewing for Selling	HUM 0810	Travel: Mostly Europe
CLT 0113	Creative Needlecraft	HUM 0811	Introduction to Antiques
CLT 0315	Basic Sewing	JEW 0810	Jewelry Crafting
CLT 0316	Advanced Sewing	LEI 0810	Fine Arts Enrichment Center Summer Program
CLT 0811	Beginning Crewel Stitchery	LIS 0810	Reading for Leisure
CLT 0813	Japanese Embroidery	LIT 0810	Book Review
CLT 0816	Patchwork Quilting	LIT 0812	Women in Literature
CLT 0817	Rug Hooking	LIT 0814	The Southern Literary Renaissance
CLT 0818	Rug and Wall Hangings	LTW 0810	Sandal Making and Leather Construction
CLT 0819	Weaving	MET 0810	Meteorology for Airman and Boatman
CLT 0821	Creative Wardrobe Planning	MUS 0810	Singing For Pleasure
CLT 0823	Creations in Fabrication	MUS 0811	Piano Lab - Beginning
CMP 0511	Boutique Sewing	MUS 0812	Beginning Guitar
CSE 0810	How to Buy and Sell Your House	MUS 0813	Community Jazz Lab
CSE 0811	How to Reduce Costs Around the Home	MUS 0814	Music Readiness I
CSE 0812	How to Win Contests	MUS 0815	Music Readiness II
CSE 0813	Interviewing; Basic Techniques		
CSE 0814	Memory and Concentration		
CSE 0816	Know Your Car		

MUS	0816	Applied Music I	PEA	0834	Tennis
MUS	0817	Applied Music II	PEA	0835	Fundamentals of Dance
MUS	0819	Applied Music III	PEA	0840	Aerobic Dance
MUS	0820	Musicianship Class	PED	0810	Introduction to Bridge
MUS	0821	Group Music Instruction	PEL	0810	Sports Officiating
MUS	0822	Music Seminar	PEL	0811	Tournament Chess
OCE	0810	Secrets of the Sea	PHI	0810	Get Control of Your Time and Life
ORH	0810	Raising Indoor Plants	PHI	0811	Meditation
ORH	0811	Home Landscape: Design	PHI	0813	Astrology
ORH	0812	Ornamental Horticulture	PHI	0814	Transcendental Meditation
PEA	0810	Modern Jazz Dance I	PHI	0815	Zen Buddhism
PEA	0811	Modern Jazz Dance II	PHI	0816	Zestful Living
PEA	0812	Hawaiian Dance	PHI	0818	Reincarnation
PEA	0813	Ballet	PSY	0815	Psychology of Emotions
PEA	0814	Ballroom Dancing	PSY	0816	Search For Self
PEA	0815	Square Dancing	PSY	0820	Introduction to Hypnosis
PEA	0817	Judo	PSY	0821	Parapsychology I
PEA	0818	Beginning Swimming	PSY	0822	Parapsychology II
PEA	0819	Competitive Swimming I	PTY	0810	Field Experience in Photography
PEA	0820	Competitive Swimming II	PTY	0811	Photography I
PEA	0821	Slimnastics	PTY	0812	Photography II
PEA	0822	Exercise and Competitive Play	PTY	0813	Photo Printing Black and White I
PEA	0823	Gymnastics I	PTY	0814	Photo Printing Black and White II
PEA	0824	Gymnastics II	REC	0810	Enjoying Florida Fishing Through Success
PEA	0826	Understanding Football	REL	0810	Women in Religion
PEA	0827	Bowling	SEM	0800	Avocational and Recreational Seminar/Workshop
PEA	0828	Soccer	SPE	0810	How to Speak Successfully Before a Group
PEA	0829	Volleyball			
PEA	0830	Belly Dancing			
PEA	0831	Modern Dance			
PEA	0832	Karate for Beginners			
PEA	0833	Swimming and Lifesaving			