COURSE DESCRIPTIONS

ACG1003 ACCOUNTING SURVEY (3)
Instruction in standard bookkeeping procedures for small professional, service, and retail sole proprietorships. Attention is given to journalizing, posting, preparing the trial balance and financial statements. Procedures for handling petty cash, bank deposits and withdrawals, payroll business tax reports, and special journals are included. This course is primarily for the non-accounting major or for those who need additional background prior to taking ACG2001, Principles of Accounting I. Supplementary review and practice in applying accounting principles is available through usage of computer assisted instructional software. Prerequisite: MTB1103, suggested. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

ACG2001 PRINCIPLES OF ACCOUNTING I (3)
This course provides an introductory study of the fundamental principles of recording, summarizing and reporting the financial activities of proprietorships. Advisement note: achieving less than a grade of "C" may experience academic difficulty in ACG2001, Principles of Accounting II. A grade of less than "C" is not transferable to upper division. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ACG2001 PRINCIPLES OF ACCOUNTING II (3)
As the second course of the series, this course concludes the study of financial accounting and introduces manufacturing and managerial accounting concepts and procedures. Topics covered include costs, accounting for equity rights, cash flow statement, financial statement analysis, cost concepts and job order costing. Advisement note: Students achieving less than a grade of "C" may experience academic difficulty in ACG2071, Management Accounting. A grade of less than "C" is not transferable to upper division. Prerequisite: ACG2001 Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ACG2071 MANAGERIAL ACCOUNTING (3)
As the last course of the series, this course concludes the study of manufacturing accounting and introduces manufacturing and managerial accounting concepts and procedures. Topics covered include the process cost system, cost behavior, cost-volume-profit analyses, budgeting, profit analysis, responsibility accounting, differential analysis capital investment analysis, quantitative techniques for inventory control, and decision-making under uncertainty. Advisement note: Students achieving less than a grade of "C" may experience academic difficulty in higher level courses. A grade of less than "C" is not transferable to upper division. Prerequisite: ACG2001 Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ACG2100 INTERMEDIATE ACCOUNTING I (3)
This course provides a systematic and in-depth study of the financial statements and underlying records. Special attention is given to the elements composing working capital, investments, and plants assets. Advisement Note: Students achieving less than a grade of "C" in ACG2100, Principles of Accounting II, may experience academic difficulty in this course. Prerequisite: ACG2011 Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ACG2100 INTERMEDIATE ACCOUNTING II (3)
As the second course of the series, this course continues an in-depth study of financial statements and underlying records. The elements that comprise the equity side of the balance sheet are emphasized with additional attention given to special problems in income determination and financial reporting. Advisement Note: Students achieving less than a grade of "C" in ACG2100, Intermediate Accounting I, may experience academic difficulty in this course. Offered Term I, Central Campus. Prerequisite: ACG2100 Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ACG2360 COST ACCOUNTING (3)
A study of the relationship of cost accounting to the control and decision-making functions of management. A review of accounting for costs precedes a detailed consideration of product costing for both job order and process cost systems. Advisement Note: Students achieving less than a grade of "C" in ACG2071 may experience academic difficulty in this course. Prerequisite: ACG2071 Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=0.00

ACG2360 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a students field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations. Course may be repeated three times. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain the registration approval. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AER100C INTRODUCTION TO AUTOMOTIVE TECHNOLOGY (4)
A course designed to introduce the field of Automotive Technology. Topics include auto service careers, shop safety, fuels, lubricants, fasteners, tools and equipment. An introduction to the major automobile systems and instruction in minor service procedures are provided. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=33.75

AER110C AUTOMOTIVE ENGINE REPAIR (4)
A course designed to teach the principles and procedures necessary to completely rebuild an automotive engine and to provide the practical experience in the engine diagnosis, removal, disassembly, rebuilding, and dynamic check out. Topics include engine diagnosis; engine removal; engine disassembly; engine rebuilding; piston and rod service; engine assembly; engine installation; valve adjustment; tune ups; and road test procedures. Special emphasis will be given to safety procedures and the specific tools, fasteners, and equipment to be used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25

AER130C ELECTRICAL SYSTEMS (4)
A course designed to teach the principles and operations of the basic electrical systems found in automotive equipment and to provide practical experience in the service and repair of or adjustment to these systems. Topics include batteries, starters, alternators, regulators, ignition systems, chassis electrical circuits, and electrical accessory circuits. Special emphasis will be given to safety procedures and the specific tools and equipment to be used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25
A course designed to teach the fundamental principles of electronics and to introduce the application of electronics in the modern automobile.
Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=31.25

**AER2171C HEATING AND AIR CONDITIONING THEORY** (4)
A course designed to teach the principles and operations of automotive heating systems, air conditioning systems and accessories, to provide practical experience in testing, analyzing, installing and repairing heating systems, air conditioning systems, air conditioning tools and equipment, lines, fittings, and valves, operational checks and adjustment, minor repairs, and the special tools and instruments to be used.
Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25

**AER2230C MANUAL DRIVE TRAIN AND AXLES** (4)
A course designed to teach the principles, operations, diagnosis and repair of manual transmissions and transaxles, drive shafts, axles, clutches and four-wheel drive systems. Special emphasis will be given to safety and the specific tools and instruments used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=58.75

**AER2251C AUTOMATIC TRANSMISSIONS AND TRANSAX** (4)
A course designed to teach the principles, operations, diagnosis and repair of automatic transmissions and transaxles. Special emphasis will be given to safety procedures and the specific tools and instruments used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25

**AER2410C BRAKE SYSTEMS AND CHASSIS REPAIR** (4)
A course to teach the principles and operations of brake systems including disc systems, split systems, hydraulic cylinders, valving systems, traction control systems, and to provide practical experience in the repair of these systems. Topics include basic brake theory, drum brake systems, split systems, disc brake systems, hydraulic cylinders, machining and measuring techniques, power boosters, and road tests procedures. Special emphasis will be given to safety procedures and specific tools and equipment to be used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25

**AER2450C STEERING AND SUSPENSION SYSTEMS** (4)
A course designed to teach the principles of steering systems, suspension systems, and wheel alignment and to provide practical experience in repairing automobile suspension and steering systems, aligning front ends and balancing tires. Topics include wheel balancing, suspension systems, suspension angle and lines, wheel alignment, standard steering gears, power steering systems and frames. Special emphasis will be given to safety procedures, and the specific tools and instruments to be used. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=46.25

**AER2520C ENGINE PERFORMANCE** (4)
A course designed to teach the principles and procedures of engine tune up and repair, and emission control systems. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=45.00

**AER2523C ADVANCED ENGINE PERFORMANCE** (4)
A course designed to teach the latest in computer engine controls, electronic fuel injection systems, emission controls and electronic instrument systems. This course includes theory of operation and construction, troubleshooting and repair. Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=45.00

**AER2700 AUTOMOTIVE SERVICE MANAGEMENT** (3)
A course designed for the study of an Automotive Service Department. Topics include warehousing system, inventory control systems, cost control and pricing merchandising and marketing, parts counter control, customer relations and organizational plans of service departments, work schedules, use of pricing, manuals, estimating, and pricing of work, analysis management cost accounting and customer relations. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AER2943 APPRENTICE EXPERIENCE** (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AER2944 APPRENTICE EXPERIENCE** (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AER2945 APPRENTICE EXPERIENCE** (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AER2946 APPRENTICE EXPERIENCE** (3)
On the job training at an automobile dealership. Each of the nine week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AER2949 CO OP WORK EXPERIENCE** (3)
On the job training at an automobile dealership. Each of the eight week apprentice work experiences will cover one term and includes a work week from 32 to 40 hours in a supervised program at the dealership. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AFR1101 FIRST YEAR AIR FORCE ROTC. (A) (1)**
This is a survey course designed to introduce students to the U.S. Air Force Reserve Officer Training Corps. Featured topic include: officering and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. A leadership laboratory is included and provides cadets with leader/follower experiences. Instruction is at the University of Miami campus (PH: 305-284-2870) Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=0.00

**AFR1111 FIRST YEAR AIR FORCE ROTC (B) (1)**
AFR1111 is a continuation of the AFR1101 survey course designed to introduce students to the U.S. Air Force Reserve
AMH2020 HISTORY OF THE UNITED STATES: COLONIAL TO 19 (3)
Selected masterpieces of American literature before 1900, including works of Hawthorne, Whitman, Melville, and Crane. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AMH2020 HISTORY OF THE UNITED STATES (3)
U.S. history from the post-Civil War Reconstruction period to the present. A general survey of the basic forces shaping American life: development of modern industrialism; organization of laborers and farmers; immigration; the Progressive Era; World War I; the 1920's; the Great Depression and New Deal; origins and impact of the Second World War; advent of the Cold War; post war domestic tensions; the complacent 1950's; social/political unrest in the 1960's; disillusionment and search for new directions since 1970. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AMH2035 THE UNITED STATES: 1945 TO THE PRE (3)
An examination of the major political, social, economic, cultural, military and diplomatic developments which have shaped the development of the modern American nation since 1945, including World War II, the Cold War, the McCarthy Era, the complacent fifties, the turbulent sixties, the disillusioning seventies, the conservative 1980's, and the search for new directions since, to include events into the 21st century.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AMT001 BASIC ELECTRICITY (3)
The study of laws and theory of electricity and its application to aircraft systems, components, and circuits, to include practical knowledge of the different types of complex circuitry found in modern aircraft. Student fee charged.
Lec Hrs=45 Lab Hrs=49 Oth Hrs=0 Fees=50.00

AMT0010 AIRCRAFT DRAWINGS (0)
This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection
lines and section, dimensions, limits, tolerances and allowances, geometric, construction, practical layout work and identification of standard parts and material, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs.

Lec Hrs=12 Lab Hrs=9 Oth Hrs=0 Fees=0.00

**AMT0020 WEIGHT AND BALANCE**  (0)

Familiarizes the student with the importance of weight and balance control, the procedures for weighing an aircraft, the computations necessary to arrive at current and balance data, and the disposition of weight and balance forms and records. The use of loading graphs and charts relating to the aircraft's center of gravity envelope is taught. Student fee charged.

Lec Hrs=20 Lab Hrs=7 Oth Hrs=0 Fees=25.00

**AMT0030 FLUID LINES AND FITTINGS**  (0)

Prepares the student to fabricate and install rigid and flexible lines and fittings with regard to bends, tools, and lubricants. Provides training in the area of identification of materials, fittings and routing of fluid lines.

Lec Hrs=10 Lab Hrs=16 Oth Hrs=0 Fees=30.00

**AMT0040 MATERIALS AND PROCESSES**  (2)

Familiarizes students with the methods used to identify and select aircraft materials and with various heat treating processes. Provides experience in the use of non-destructive methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technicians' ethics and legal responsibilities.

Lec Hrs=46 Lab Hrs=38 Oth Hrs=0 Fees=0.00

**AMT0050 GROUND OPERATIONS AND SERVICING**  (1)

Familiarizes the student with the proper methods of starting ground operating, servicing and securing aircraft.

Lec Hrs=10 Lab Hrs=21 Oth Hrs=0 Fees=0.00

**AMT0060 CLEANING AND CORROSION CONTROL**  (0)

Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and non-ferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components. Student fee charged.

Lec Hrs=12 Lab Hrs=14 Oth Hrs=0 Fees=25.00

**AMT0070 APPLIED MATHEMATICS**  (0)

Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations.

Lec Hrs=14 Lab Hrs=7 Oth Hrs=0 Fees=0.00

**AMT0081 FAR’S, FORMS & PRIVILEGES**  (1)

Familiarizes the student with FAA regulations, advisory circulars, and other government and industry publications, proper terminology and procedures for the execution of log books and major repair and alteration forms, and privileges and limitations as they apply to the certified mechanic. Student fee charged.

Lec Hrs=22 Lab Hrs=20 Oth Hrs=0 Fees=10.00

**AMT0090 BASIC PHYSICS**  (0)

Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance.

Lec Hrs=17 Lab Hrs=9 Oth Hrs=0 Fees=0.00

**AMT0100 AIRCRAFT WOOD STRUCTURES**  (0)

Aircraft wood structures are covered in this section and familiarizes the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. Student fee charged.

Lec Hrs=9 Lab Hrs=2 Oth Hrs=0 Fees=25.00

**AMT0115 AIRCRAFT COVERINGS**  (0)

Student will gain knowledge and skills to inspect, test, and repair fabric-covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material. Student fee charged.

Lec Hrs=8 Lab Hrs=4 Oth Hrs=0 Fees=40.00

**AMT0120 AIRCRAFT FINISHES**  (1)

Student will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. the student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials. Student fee charged.

Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=50.00

**AMT0130 SHEET METAL STRUCTURES**  (5)

Student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composite and other type non-metallic structural materials and methods of construction using these materials. Student fee charged.

Lec Hrs=41 Lab Hrs=116 Oth Hrs=0 Fees=255.00

**AMT0140 AIRCRAFT WELDING**  (1)

A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in heli arc welding. Lab fee is required.

Lec Hrs=15 Lab Hrs=25 Oth Hrs=0 Fees=50.00

**AMT0155 ASSEMBLY AND RIGGING**  (2)

Student will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics. Student fee charged.

Lec Hrs=20 Lab Hrs=45 Oth Hrs=0 Fees=40.00

**AMT0160 AIRFRAME INSPECTION**  (0)

Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FARs by checking appropriate A.D.’s classifying repairs, and pinpointing specific service problems. The student will complete the required maintenance forms, records, and inspection reports required by Federal Air Regulations. Student fee charged.

Lec Hrs=5 Lab Hrs=15 Oth Hrs=0 Fees=25.00

**AMT0200 LANDING GEAR SYSTEMS**  (3)

Student will receive training in the proper methods of inspection, servicing and repair of landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems. Rigging of various types retractable landing gear systems will be covered in detail. Student fee charged.

Lec Hrs=35 Lab Hrs=50 Oth Hrs=0 Fees=50.00
AMT0210 HYDRAULIC AND PNEUMATICS SYSTEMS (2)
The student will study the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, type of seals, pumps, and differences between hydraulics and pneumatics. Student fee charged.
Lec Hrs=35 Lab Hrs=40 Oth Hrs=0 Fees=50.00

AMT0220 CABIN ATMOSPHERE CONTROL SYSTEMS (1)
This unit covers the various systems used to condition air and cabin pressurization as well as practical experience in inspecting, checking, troubleshooting, and servicing the oxygen system. Student fee charged.
Lec Hrs=20 Lab Hrs=30 Oth Hrs=0 Fees=40.00

AMT0230 AIRCRAFT INSTRUMENTS SYSTEMS (1)
A basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments. Student fee charged.
Lec Hrs=15 Lab Hrs=10 Oth Hrs=0 Fees=40.00

AMT0240 COMMUNICATIONS AND NAVIGATION SYSTEM (1)
This course introduces the student with basic auto pilot operation and familiarizes him with the installation requirements and use of the various communication and navigation systems. Student fee charged.
Lec Hrs=25 Lab Hrs=5 Oth Hrs=0 Fees=40.00

AMT0250 AIRCRAFT FUEL SYSTEMS (1)
The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. He/she will be able to inspect, check, maintain, and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling operations. Student fee charged.
Lec Hrs=17 Lab Hrs=23 Oth Hrs=0 Fees=40.00

AMT0260 AIRCRAFT ELECTRICAL SYSTEMS (3)
The types and characteristics of aircraft electrical circuits and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment. Student fee charged.
Lec Hrs=45 Lab Hrs=55 Oth Hrs=0 Fees=50.00

AMT0270 POSITION AND WARNING SYSTEMS (1)
This course presents the student with the inspection, servicing and maintaining of position and warming systems. Included in this area are navigation lights, beacons, and lights indicating the position of various aircraft components. Student fee charged.
Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=40.00

AMT0285 ICE, RAIN, & FIRE PROTECTION (1)
Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, provides the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. Student fee charged.
Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=40.00

AMT0300 RECIPROCATING ENGINES (6)
The course covers theory and fundamental requirements for aircraft engines, basic parts of internal combustion engines, 2 stroke and 4 stroke cycle, power measurements and calculations, conversion of heat energy into mechanical energy, horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly, reduction gearing, crankshafts, and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines. Student fee charged.
Lec Hrs=58 Lab Hrs=133 Oth Hrs=0 Fees=150.00

AMT0310 TURBINE ENGINES (3)
A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs reassembly test run, and final adjustment. Corequisites: AMT0300, AMT0400, AMT0420, AMT0320. Student fee charged.
Lec Hrs=55 Lab Hrs=55 Oth Hrs=0 Fees=75.00

AMT0320 ENGINE INSPECTION (0)
A course study of which details the correct methods of engine removal and installation, inspection and run up testing, including the final adjustments according to FAA regulations and manufacturer's recommendations. Student fee charged.
Lec Hrs=4 Lab Hrs=11 Oth Hrs=0 Fees=40.00

AMT0400 ENGINE INSTRUMENT SYSTEMS (1)
Students will have a knowledge of operation, installation, marking and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate instruments in accordance with FAA and manufacturer's recommendations. This course will provide experience in inspection, checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature. Student fee charged.
Lec Hrs=10 Lab Hrs=15 Oth Hrs=0 Fees=25.00

AMT0410 ENGINE FIRE PROTECTION SYSTEMS (0)
To provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems. Student fee charged.
Lec Hrs=5 Lab Hrs=10 Oth Hrs=0 Fees=40.00

AMT0420 ENGINE ELECTRICAL SYSTEMS & APU'S (2)
This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. Student fee charged.
Lec Hrs=24 Lab Hrs=35 Oth Hrs=0 Fees=75.00

AMT0435 LUBRICATION SYSTEMS (2)
Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication system for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components. Student fee charged.
Lec Hrs=30 Lab Hrs=40 Oth Hrs=0 Fees=75.00
AMT0440 IGNITION SYSTEMS (3)
Students will have knowledge of the operation, repair, inspection, and service of reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system. Student fee charged.
Lec Hrs=38 Lab Hrs=47 Oth Hrs=0 Fees=75.00

AMT0450 ENGINE FUEL SYSTEMS (1)
Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain, check, and repair engine fuel system components. Student fee charged.
Lec Hrs=10 Lab Hrs=15 Oth Hrs=0 Fees=0.00

AMT0451 FUEL METERING SYSTEMS (2)
Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering system. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters, and strainers are discussed and practical experience is gained in these areas. Student fee charged.
Lec Hrs=24 Lab Hrs=35 Oth Hrs=0 Fees=75.00

AMT0460 INDUCTION SYSTEMS (1)
Gives student the knowledge and experience needed to service and maintain induction systems, superchargers, and exhaust systems. Material covered includes controls, indicators, theory of operation and inspection criteria. Student fee charged.
Lec Hrs=11 Lab Hrs=14 Oth Hrs=0 Fees=40.00

AMT0475 ENGINE COOLING & EXHAUST SYSTEMS (1)
This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling system. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.
Lec Hrs=13 Lab Hrs=17 Oth Hrs=0 Fees=40.00

AMT0490 PROPELLERS AND UNDUCTED FANS (3)
This unit of instruction is designed to cover aircraft engine and turbo prop installations. Areas dealt with are: propeller fundamentals and terminology, synchronizing and ice control systems, identification and selection of propeller lubricants, balancing of propellers, propeller control systems, propeller governing systems, and installation, troubleshooting and removal of propellers. The theory of unducted fans is presented. Student fee charged.
Lec Hrs=41 Lab Hrs=49 Oth Hrs=0 Fees=75.00

AMT1001 BASIC ELECTRICITY (2)
Basic electricity. The study of laws and theory of electricity and its application to aircraft systems, components, and circuits, to include practical knowledge of the different types of complex circuitry found in modern aircraft.
Lec Hrs=34 Lab Hrs=50 Oth Hrs=0 Fees=50.00

AMT1010 AIRCRAFT DRAWINGS (1)
This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection lines and sections, dimensions, limits, tolerances and allowances, geometric, construction, practical layout work and identification of standard parts and materials, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs.
Lec Hrs=11 Lab Hrs=15 Oth Hrs=0 Fees=0.00

AMT1020 WEIGHT AND BALANCE (1)
Familiarizes the student with the importance of weight and balance control, the procedures for weighting an aircraft, the computations necessary to arrive at current and balance data, and the disposition of weight and balance forms and records. The use of loading graphs and charts relating to the aircraft's center gravity envelope is taught.
Lec Hrs=16 Lab Hrs=23 Oth Hrs=0 Fees=25.00

AMT1030 FLUID LINES AND FITTINGS (1)
Prepares the student to fabricate and install rigid and flexible lines and fittings with regard to bends, tools, and lubricants. Provides training in the area of identification of materials, fittings and routing of fluid lines.
Lec Hrs=8 Lab Hrs=16 Oth Hrs=0 Fees=50.00

AMT1040 MATERIALS AND PROCESSES (2)
Familiarizes students with the methods used to identify and select aircraft materials and with various heat treating processes. Provides experience in the use of non-destructive methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technician's ethics and legal responsibilities.
Lec Hrs=39 Lab Hrs=41 Oth Hrs=0 Fees=25.00

AMT1050 GROUND OPERATIONS AND SERVICING (1)
Familiarizes the student with the proper methods of starting ground operating servicing and securing aircraft. Lec Hrs=10 Lab Hrs=19 Oth Hrs=0 Fees=50.00

AMT1060 CLEANING AND CORROSION CONTROL (1)
Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and nonferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components.
Lec Hrs=12 Lab Hrs=26 Oth Hrs=0 Fees=25.00

AMT1070 APPLIED MATHEMATICS (1)
Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations.
Lec Hrs=13 Lab Hrs=7 Oth Hrs=0 Fees=0.00

AMT1081 FAR'S, FORMS & PRIVILEGES (1)
Familiarizes the student with FAA regulations, advisory circulars, and other government and industry publications, proper terminology and procedures for the execution of log books and major repair and alteration forms, and privileges and limitations as they apply to the certified mechanic. Student fee charged.
Lec Hrs=19 Lab Hrs=16 Oth Hrs=0 Fees=10.00
AMT1090 BASIC PHYSICS (1)  
Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance.
Lec Hrs=13 Lab Hrs=7 Oth Hrs=0 Fees=0.00

AMT1110 AIRCRAFT WOOD STRUCTURES (1)  
Aircraft wood structures are covered in this section and familiarizes the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. Student fee charged.
Lec Hrs=9 Lab Hrs=2 Oth Hrs=0 Fees=25.00

AMT1115 AIRCRAFT COVERINGS (1)  
Student will gain knowledge and skills to inspect, test, and repair fabric covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material.
Lec Hrs=8 Lab Hrs=4 Oth Hrs=0 Fees=40.00

AMT1120 AIRCRAFT FINISHES (1)  
Student will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. The student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials.
Pre or Corequisite: AMT1110  
Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=40.00

AMT1130 SHEET METAL STRUCTURES (4)  
Student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composite, and other nonmetallic structural material and methods of construction using these materials. Student fee charged.
Lec Hrs=41 Lab Hrs=116 Oth Hrs=0 Fees=75.00

AMT1140 AIRCRAFT WELDING (1)  
A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in heli arc welding. Lab fee is required.
Lec Hrs=15 Lab Hrs=25 Oth Hrs=0 Fees=50.00

AMT1155 ASSEMBLY AND RIGGING (2)  
Students will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics.
Lec Hrs=20 Lab Hrs=45 Oth Hrs=0 Fees=40.00

AMT1160 AIRFRAME INSPECTION (1)  
Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FAR's by checking appropriate A.D.'s classifying repairs, and pinpointing specific service requirements, and adjustments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, types of seals, pumps, and differences between hydraulics and pneumatics.
Lec Hrs=35 Lab Hrs=40 Oth Hrs=0 Fees=50.00

AMT1200 HYDRAULIC AND PNEUMATICS SYSTEMS (2)  
The student will study the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment.
Lec Hrs=45 Lab Hrs=55 Oth Hrs=0 Fees=50.00

AMT1220 CABIN ATMOSPHERE CONTROL SYSTEMS (1)  
This course introduces the student with basic auto pilot operation and familiarizes him with the installation requirements and use of the various communication and navigation systems.
Lec Hrs=25 Lab Hrs=5 Oth Hrs=0 Fees=40.00

AMT1230 AIRCRAFT INSTRUMENTS SYSTEMS (1)  
A basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments.
Lec Hrs=15 Lab Hrs=10 Oth Hrs=0 Fees=40.00

AMT1240 COMMUNICATIONS AND NAVIGATION SYSTEMS (1)  
This course presents the student with the inspection, servicing and maintenance of position and warning systems. Included in this area are navigation lights, beacons, and lights indicating the position of various aircraft components.
Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=40.00

AMT1250 AIRCRAFT FUEL SYSTEMS (1)  
The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. He/she will be able to inspect, check, maintain, and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling operations.
Lec Hrs=17 Lab Hrs=23 Oth Hrs=0 Fees=40.00

AMT1260 AIRCRAFT ELECTRICAL SYSTEMS (3)  
The types and characteristics of aircraft electrical circuits and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment.
Lec Hrs=45 Lab Hrs=55 Oth Hrs=0 Fees=50.00

AMT1285 ICE, RAIN, & FIRE PROTECTION (1)
Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, providing the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. Student fee charged.

Lec Hrs=10 Lab Hrs=20 Oth Hrs=0 Fees=40.00

AMT2300 RECIPROCATING ENGINES (6)
The course covers theory and fundamental requirements for aircraft engines; basic parts of internal combustion engines, 2 stroke and 4 stroke cycle, power measurements and calculations, conversion of heat energy into mechanical energy, horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly, reduction gearing, crankshafts and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines.

Lec Hrs=58 Lab Hrs=133 Oth Hrs=0 Fees=150.00

AMT2310 TURBINE ENGINES (2)
A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs, reassembly, test run, and final adjustment.

Lec Hrs=55 Lab Hrs=55 Oth Hrs=0 Fees=75.00

AMT2320 ENGINE INSPECTION (1)
A course study which details the correct methods of engine removal and installation, inspection and run up testing, including the final adjustments according to FAA regulations and manufacturer’s recommendations.

Lec Hrs=4 Lab Hrs=11 Oth Hrs=0 Fees=40.00

AMT2400 ENGINE INSTRUMENT SYSTEMS (1)
Students will have a knowledge of operation, installation, making and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacturer’s recommendations. This course will provide experience in inspection checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature.

Lec Hrs=10 Lab Hrs=15 Oth Hrs=0 Fees=25.00

AMT2410 ENGINE FIRE PROTECTION SYSTEMS (1)
To provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems.

Lec Hrs=5 Lab Hrs=10 Oth Hrs=0 Fees=40.00

AMT2420 ENGINE ELECTRICAL SYSTEMS & APUS (2)
This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. Student fee charged.

Lec Hrs=24 Lab Hrs=35 Oth Hrs=0 Fees=75.00

AMT2435 LUBRICATION SYSTEMS (2)
Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication systems for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components.

Lec Hrs=30 Lab Hrs=40 Oth Hrs=0 Fees=75.00

AMT2440 IGNITION SYSTEMS (2)
Students will have a knowledge of the operation, repair, inspection, and service of reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system.

Lec Hrs=38 Lab Hrs=47 Oth Hrs=0 Fees=75.00

AMT2450 ENGINE FUEL SYSTEMS (1)
Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain check, and repair engine fuel system components.

Lec Hrs=10 Lab Hrs=15 Oth Hrs=0 Fees=40.00

AMT2451 FUEL METERING SYSTEMS (2)
Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering systems. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters, strainers are discussed and practical experience is gained in these areas.

Lec Hrs=24 Lab Hrs=35 Oth Hrs=0 Fees=75.00

AMT2460 INDUCTION SYSTEMS (1)
Gives student the knowledge and experience needed to service and maintain induction systems, superchargers, and exhaust systems. Material covered includes controls, indicators, theory of operation and inspection criteria.

Lec Hrs=11 Lab Hrs=14 Oth Hrs=0 Fees=40.00

AMT2475 ENGINE COOLING & EXHAUST SYSTEMS (1)
This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling systems. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.

Lec Hrs=13 Lab Hrs=17 Oth Hrs=0 Fees=40.00

AMT2490 PROPELLERS AND UNDUCTED FANS (2)
This unit of instruction is designed to cover aircraft engine and turbo prop installations. Areas dealt with are: propeller fundamentals and terminology, synchronizing and ice control systems, identification and selection of propeller lubricants, balancing of propellers, propeller control systems, propeller governing systems, and installation, troubleshooting and removal of propellers. The theory of unducted fans is presented. Student fee charged.

Lec Hrs=41 Lab Hrs=49 Oth Hrs=0 Fees=75.00

AMT2000 INTRODUCTION TO ANTHROPOLOGY (3)
An introductory study of the biological evolution and cultural development of human customs, social organization, and institutions. The student is introduced to the major fields of study undertaken by anthropologists. Meets Area 3B and 8 general education requirements for the A.A. degree. Meets...
Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARC1701 SURVEY OF ARCHITECTURAL HISTORY** (3)
A general survey of social, political, and cultural factors which have generated architecture from prehistoric times through the Fifteenth Century. Meets Area 2H general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARC2201 THEORY OF ARCHITECTURE** (3)
This course provides an understanding of architectonic elements, principles and aesthetics in architecture. It analyzes their application in contemporary and historical architecture and relates their application to architecture design studio solutions. The course also covers the work and philosophies of contemporary architects.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARC2303 ARCHITECTURAL DESIGN III** (4)
This course emphasizes the analysis and resolution of the natural and man-made environmental context as a generator of architectural design ideas. The analysis of architectural building programs and architectonic principles are applied to further define the organization, form, circulation and function of architectural space in buildings.
Prerequisite: ARC1302 ARC2201
Lec Hrs=16 Lab Hrs=96 Oth Hrs=0 Fees=45.00

**ARC2304 ARCHITECTURAL DESIGN IV** (4)
This course covers the development of architectonic conceptual ideas from program requirements and contextual factors as generators of architectural design. Architectonic principles of enclosure, massing, articulation of form, proportions, geometry, scale and structures are applied in the development of imagery for building design. A portfolio is
created from each student's best work for the purpose of transfer admission to a university program. 
Prerequisite: ARC2303 ARC2461
Lec Hrs=16 Lab Hrs=96 Oth Hrs=0 Fees=45.00

**ARC2461 MATERIALS AND METHODS OF CONSTRUCTION (4)**
Introduction to materials and methods of construction with emphasis on wood, masonry, concrete, and steel. The evaluation of materials, functional applications and code requirements are stressed.
Prerequisite: ARC1301
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARC2580 STRUCTURES (4)**
Basic study in the principles and evaluations of structures as applied to architecture. Major topics of study include statics, stress, and the characteristics of beam and column behavior. This course will enable the student to develop a structural sense in creating architectural solutions.
Prerequisite: MAC1105
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARC2681 ENVIRONMENTAL TECHNOLOGY (3)**
The student will demonstrate a proficiency in the basic principles of comfort, safety, and efficiency theories and concepts in relationship with the environment according to accepted professional standards.
Prerequisite: ARC2461
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=5.00

**ARC2921 ARCHITECTURE STUDY ABROAD (3)**
A combination of classroom preparation plus travel to include sketching, photography, critique and review of architectural history and design. Variable content depending upon areas visited.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2000 ART APPRECIATION (3)**
A course considering form and content in world art, emphasizing its social and historical aspects so that students may become aware of how and why art is made and its meaning.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2050 WORLD ART: PREHISTORY TO GOTHIC (3)**
Chronological survey and analysis of world art from prehistory to the fourteenth century, placing major works in a historical and stylistic context.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2051 WORLD ART: RENAISSANCE TO MODERN (3)**
Chronological survey and analysis of world art from Renaissance to Modern, placing major works in a historical and stylistic context.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2351 SPANISH ART HISTORY (3)**
Spanish Art History includes the study of outstanding examples of architecture, painting and sculpture, emphasizing the early Roman and Moorish contributions as well as the great Spanish painters of the Renaissance and the 19th and 20th Centuries. Included in this course are cultural trips to museums, galleries and monuments in Seville.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2402 MODERN ART (3)**
Chronological survey and analysis of modern art from mid-19th century to the present, placing major works in a social, historical and stylistic context.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARH2660 LATIN AMERICAN ART (3)**
Chronological survey and analysis of Latin American art from mid-19th century to the present, placing major works in a social, historical and stylistic context.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ARR1010 INTRODUCTION TO AUTOBODY (3)**
A course designed to introduce the field of auto body repair. Topics include auto body careers, shop safety, tools and equipment, an overview of materials and processes used in auto body repair and refinishing procedures.
Lec Hrs=24 Lab Hrs=48 Oth Hrs=0 Fees=0.00

**ARR2120 AUTOBODY REFINISHING (6)**
A course designed to teach intermediate and advanced concepts and techniques of Autobody Refinishing. This course includes surface preparation, spray equipment, paint systems, chemistry, matching, mixing and applying, finish defects, special finishes and safety and environmental protection procedures.
Lec Hrs=48 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ARR2290 ADVANCED AUTOBODY REPAIR (9)**
A course designed to teach intermediate and advanced concepts and techniques of Autobody Repair. This course includes manufacturing processes and materials, damage assessment, body measurement, advanced welding, exotic metal and plastic panel repairs, unibody and frame straightening, glass, convertible top and electrical system repair.
Lec Hrs=72 Lab Hrs=144 Oth Hrs=0 Fees=0.00

**ART1201C 2 D DESIGN (3)**
Three-dimensional study of form, principles of organization and the elements of design fundamental for creative work in 2-D visual arts.
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=5.00

**ART1203C 3 D DESIGN (3)**
Three-dimensional study of form, principles of organization and elements of design fundamental for creative work in 3-D visual arts.
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=25.00

**ART1300C DRAWING I (3)**
Study of landscape and still life composition utilizing wet and dry drawing media.
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=10.00

**ART1301C DRAWING II (3)**
An extension of the content of Drawing I with increased concentration upon analytical description, pictorial composition, and drawing as a means of visual communication of ideas.
Prerequisite: ART1300C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=10.00

**ART1600C COMPUTER ART (3)**
A basic course in how the computer can be adapted and used in the visual arts. Creative uses of the computer and assorted
A course designed to establish a framework for future self-learning. Students will shape the course to fit their needs by planning activities with a faculty advisor. Exceptions to prerequisite may be considered by the Art Department Head.

**ART2205C COLOR AND COMPOSITION** (3)
A basic course in the exploration of color theories, color systems, and color relativity in regard to optical sensation, lighting variation and psychological impact.

Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=20.00

**ART2905 INDEPENDENT STUDY** (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the ceramics process. Prerequisite: Instructor permission

Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=35.00

**ART2330C LIFE DRAWING** (3)
Study of human and animal forms utilizing various wet and dry media.

Prerequisite: ART1300C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=40.00

**ART2400C BEGINNING PRINTMAKING** (3)
A study of the processes and techniques in Intaglio and Relief printing. Instructor's approval or

Prerequisite: ART1201C ART1300C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=25.00

**ART2906 INDEPENDENT STUDY: CERAMICS** (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the drawing process. Instructor's approval and

Prerequisite: ART1300C ART2330C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2500C PAINTING I** (3)
An introduction to creative techniques and composition applied to oil painting and acrylic media.

Prerequisite: ART1201C ART1300C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2500C SPECIAL TOPICS: PAINTING** (3)
A painting studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Prerequisite: ART2500C ART2501C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2501C PAINTING II** (3)
A creative exploration of oil or acrylic techniques and/or water media with an emphasis on composition.

Prerequisite: ART2500C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2501C SPECIAL TOPICS: PAINTING** (3)
A painting studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Prerequisite: ART2500C ART2501C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2540C WATERCOLOR** (3)
A creative exploration of watercolor techniques and media with an emphasis on composition.

Prerequisite: ART1201C ART1300C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2701C SCULPTURE** (3)
A three-dimensional study of form and concept utilizing physical material to occupy real space either free standing or bas-relief. The principles of organization and the element of design fundamentals are carried over and expand from 3-D design.

Prerequisite: Instructor permission or

Prerequisite: ART1203C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=25.00

**ART2906 INDEPENDENT STUDY: SCULPTURE** (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the sculpture process. Prerequisite: Instructor permission or

Prerequisite: ART1203C ART2701C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=25.00

**ART2909 INDEPENDENT STUDY: PAINTING** (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the painting process. Prerequisites: Instructor approval or

Prerequisite: ART2500C ART2501C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2930C SPECIAL TOPICS: PAINTING** (3)
A ceramics studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Prerequisite: ART2500C ART2501C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

**ART2932C SPECIAL TOPIC: CERAMICS** (3)
A ceramics studio course centered around topics of current interest or special interest to students. Topics or focus may vary from semester to semester. Exception to prerequisites will be considered by the Art Department Head. Special topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Prerequisite: Instructor permission
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=35.00

**ART2949 CO OP WORK EXPERIENCE** (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ART2950 SEMINAR IN ART** (3)
A course designed for students who wish to combine the study of Art with travel in a foreign country. Variable content depends on areas visited.
ART2951 SEMINAR IN ART (6)
A course designed for students who wish to combine the study of Art with travel in a foreign country. Variable content depending on areas visited.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC1010 HISTORY OF AVIATION (3)
A survey of aviation from its beginning with early myths, through gliders, balloon flights and powered flight to the present jet age. Includes effects of wars on the development of civil and military aircraft and discusses significant personnel flights and aircraft in tracing the advancement of general, commercial, and military aircraft. The major emphasis of the course will be directed towards the development of aviation in the United States.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC1100 NAVIGATIONAL SCIENCE I (3)
This course, together with ATT1100, provides the basic aeronautical knowledge for the professional pilot and aviation operation programs. The two courses must be taken concurrently unless the student's major is Airport Operations Management or Aviation Maintenance Management, in which only ATT1100 is required. The areas of study include airport operations, airspace, flight information publications, basic air navigation including pertinent regulations, preflight planning, cross country navigation, and radio navigation. Successful completion of ATT1100 and ASC1100 will prepare students for the FAA Private Pilot (airplane) Computerized Knowledge Exam.
Corequisite: ATT1100
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC1210 METEOROLOGY (3)
A study of the basic concepts of meteorology, temperature pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing, and fog analysis and use of weather data; interpretation of the U.S. Weather Bureau maps, reports and forecasts. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Corequisite: ASC2110 ATT2120
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC1550 AERODYNAMICS (3)
An analysis of the physical laws and aerodynamic principles which govern the flight and performance of aircraft stability and control, weight and balance, and aircraft instruments affecting flight operational considerations of controllable pitch propellers, retractable gear, weather, and precision maneuvers. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC1610 AIRCRAFT ENGINES, STRUCTURES, AND S (3)
Aircraft engine types and theory of operation theory, materials and construction methods of aircraft structures operations of hydraulic, electrical, fuel, pressurization, and anti-icing, heating and instrument systems, including sources of power for their operation. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100

ASC2110 NAVIGATION SCIENCE II (3)
Methods and procedures for the solution of advanced piloting and dead reckoning problems. Functioning, capabilities, and limitations of radio navigation systems. Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Corequisite: ASC1210 ATT2120
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC2320 AVIATION LAW AND REGULATIONS (3)
An introduction and analysis of the regulations and laws governing airport and airline operations, incorporating aviation safety. Topics of discussion include the major regulations to include: Federal Aviation Regulations (FARS) 77, 108, 121, 129, 135, 139, 150, 191, and NTSB 830. These topics will include navigable airspace, airport noise and the applicable Advisory Circulars (A/C) that explain compliance. Additionally, these topics of discussion will include an overview of how the regulations are governed and administered, compliance with overview of how the regulations are governed and administered, compliance with regulations, non-compliance, and management of government regulations.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC2870 AVIATION SAFETY (3)
The primary goal of this course is to provide aspiring aviation professionals with a comprehensive understanding and enhanced awareness of aviation safety. Class will participate in analyzing the probable cause of selected aviation accidents, review detailed analyses of accidents related to topics of human factors, runway incursions, weather, mid-air collisions and mechanical and maintenance issues. Federal agencies which regulate aviation with emphasis on those concerned with safety will also be studied.
Prerequisite: ASC1100 ATT1100
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ASC2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AST1002 HORIZONS IN ASTRONOMY (3)
This is an Open College directed self-study program consisting of five (5) on-campus meetings and supplemental videotape viewing at home. The course introduces the origin, characteristics, and evolution of the solar system, stars, and galaxies and studies the historical milestones in astronomy from the ancient astronomers to the modern space probes. Consideration is given to current and expected future trends in astronomical research and theories. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
AST1003ASTRONOMY OF THE SOLAR SYSTEM (3)
Primarily descriptive and conceptual study of the solar system
and astronomical methods of general interest. Evening
observing sessions in addition to the scheduled course hours
may be required. An astronomy laboratory is recommended.
Meets Area 4B general education requirements for the A.A.
degree. Meets Areas 4 or 5 general education requirements
for the A.S. degree. Placement by Testing Department or
Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AST1004ASTRONOMY OF STARS AND GALAXIES
(3)
Primarily descriptive and conceptual study of objects and
events beyond the solar system in our galaxy and in other
galaxies. Meets Area 4B general education requirements for
the A.A. degree. Meets Areas 4 or 5 general education
requirements for the A.S. degree. Placement by Testing
Department or
Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AST1022LABORATORY OBSERVATIONS (1)
A basic lab course to introduce students to the
primary astronomical objects: the sun, moon, planets, stars
and galaxies. Students will use the naked eye, telescopes and
astronomical atlases to make observations of celestial objects.
In addition, physical experiments will introduce principles of
optics, light, and gravity utilized in astronomy. One three
hour lab per week. Meets Area 4C general education
requirements for the A.S. degree. Placement by Testing
Department or
Pr or Corequisite: AST1003
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=20.00

AST1037SCIENTIFIC SEARCH FOR LIFE IN THE
(3)
This interdisciplinary course examines the nature and history
of life on earth, possible life-allowing environments within
the solar system and in the detecting life in the universe at
large. Topics of discussion include the evolution and
biochemistry of terrestrial life, the formation of organic
compounds in the solar system and other extraterrestrial
environments, physical constraints, equipment, and strategies
for detecting intelligent life in the universe. Placement by
Testing Department or
Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AST2080PLANETARIUM EDUCATION (3)
Course for teachers and students of Education. Study of the
use of the Planetarium in Education. Various audiovisual
devices will be employed. Large portions of the course
consist of directed study with the student designing and
writing his own educational materials pertaining to audio
visual concepts in Planetarium Education. Acquaints student
with the celestial sphere and planet position. Placement by
Testing Department or Instructor Approval.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ATF1100PRIMARY FLIGHT
This course provides the flight training and experience
required by the Federal Aviation Regulations (FAA) part 141
for a Private Pilot Certificate. Student must obtain FAA
Private Pilot Certificate in order to receive credit for the
course. Flight training fees are paid directly to the College in
advance.
Prerequisite: Private Pilot Certificate with Instrument Rating
Lec Hrs=15 Lab Hrs=30 Oth Hrs=0 Fees=0.00

ATF2200COMMERCIAL FLIGHT I (3)
This course continues the training and experience begun in
primary flight. Together with ATF2210 and ATF2300, it
provides the aeronautical experience required to qualify for
the FAA Commercial Pilot Certificate with instrument rating
under Federal Aviation Regulations part 141. Flight training
fees are paid directly to the College in advance. Prerequisite:
private pilot's license or instructor's permission or
Prerequisite: ATF1100
Corequisite: ASC1210 ASC2110 ATF2600 ATT2120
Lec Hrs=10 Lab Hrs=80 Oth Hrs=0 Fees=0.00

ATF2210COMMERCIAL FLIGHT II (3)
This course continues the training and experience of
Commercial Flight I. Together with ATF2200 and ATF2300,
it provides the aeronautical experience required to qualify for
the FAA Commercial Pilot Certificate with instrument rating
under Federal Aviation Regulations part 141. During this
course, the student completes coursework to obtain the
instrument rating and begins commercial pilot training. Flight
training fees are paid directly to the College in advance. Prerequisite: Instructor's approval or
Prerequisite: ATF2200
Corequisite: ATT2110
Lec Hrs=10 Lab Hrs=80 Oth Hrs=0 Fees=0.00

ATF2300COMMERCIAL FLIGHT III (3)
This is the final of the series of courses designed to provide the
aeronautical experience for a FAA Commercial Pilot
Certificate with instrument rating under Federal Aviation
Regulations part 141. During this course the student achieves
qualification in complex air- craft. In order to receive credit
for this course, the student must have earned a FAA
Commercial Pilot Certificate. Flight training fees are paid
directly to the College in advance. Prerequisite: Instructor's approval or
Prerequisite: ATF2210
Lec Hrs=10 Lab Hrs=80 Oth Hrs=0 Fees=0.00

ATF2400MULTI ENGINE TRANSITION (1)
This course provides the flight training and experience
required to obtain an FAA multi- engine rating. In order to
receive credit for this course, the student must have earned a FAA
multi-engine rating. Flight training fees are paid directly
to the College in advance.
Prerequisite: Private Pilot Certificate with Instrument Rating
or Instructor's Approval
Corequisite: ATF2630
Lec Hrs=5 Lab Hrs=20 Oth Hrs=0 Fees=0.00

ATF2500FLIGHT INSTRUCTOR TRAINING (2)
This course provides the flight and ground instruction to
train a commercial pilot to be a flight instructor. Course
consists of the number of dual and solo flying hours and oral
instruction required in each case to qualify the individual for a
FAA flight instructor certificate. In order to receive credit for
this course, the student must have earned a FAA flight
instructor certificate. Training fees are paid directly to the
College in advance.
Prerequisite: Commercial Pilot Certificate with Instrument Rating
Lec Hrs=15 Lab Hrs=30 Oth Hrs=0 Fees=0.00

ATF2600FLIGHT SIMULATOR TRAINING (1)
This course provides a total of 15 hours of training in one of the Emil Buehler Flight Lab flight training devices at South Campus. This course may be taken as an elective in any of the aviation programs. Material covered will be tailored to the individual depending upon his/her piloting background. This course may be repeated for a maximum of 3 semester hours to meet a 3 semester hour elective requirement. Student fee charged.
Prerequisite: instructor's permission or
Prerequisite: ASC1100 ATF1100 ATT1100
Corequisite: ATF2200
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=75.00

**ATF2630 BASIC INSTRUMENT SIMULATOR (1)**
This course provides a total of 15 hours of training in one of the Buehler Flight Lab multi-engine flight training devices at South Campus. The course consists of 5 hours of lecture and 10 hours in the flight training device. This course may be taken as an elective in any of the aviation programs. This course may be repeated for a maximum of 3 semester hours to meet a 3 semester hour elective requirement. Student fee charged.
Prerequisite: instructor's permission or
Prerequisite: ASC1100 ATF1100 ATT1100
Corequisite: ATF2400
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

**ATF2660 FLIGHT SIMULATOR TURBOPROP (1)**
This course provides a total of 16 hours of training in the Emil Buehler Flight Lab turbo-prop flight training device at South Campus. The course consists of 6 hours of lecture and 10 hours in the flight training device. This course may be taken as an elective in any of the aviation programs. This course may be repeated for a maximum of 3 semester hours to meet a 3 semester hour elective requirement. Student fee charged.
Prerequisite: Flight Program Manager's prior approval is necessary.
Lec Hrs=6 Lab Hrs=10 Oth Hrs=0 Fees=200.00

**ATT1100 AERONAUTICAL SCIENCE (3)**
An introduction to the theory of flight, this course is required for all aviation programs. It includes elementary aerodynamics, the major components of airplanes and their functions, the pertinent Federal Aviation Administration (FAA) regulations and basic airspace, aircraft performance and basic navigation, an introduction to meteorology and weather services and human factors. Successful completion of ATT1100 and ASC1100 will prepare students for the FAA Private Pilot (airplane) Computerized Knowledge Exam. Professional Pilot Technology and Aviation Operations program majors must take this course concurrently with ASC1100.
Corequisite: ASC1100
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ATT2110 COMMERCIAL FLIGHT THEORY (3)**
Provides the aeronautical information needed to satisfactorily complete the FAA Commercial Pilot Knowledge Exam. Subject matter is tailored to the needs of the advanced pilot. It includes aerodynamics, airplane performance and systems, navigation, physiological factors, Federal Aviation Regulations and weather. It is recommended to complete the instrument rating before taking this course.
Prerequisite: FAA Private Pilot Certificate or instructor's permission or
Prerequisite: ASC1100 ATT1100
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ATT2120 INSTRUMENT FLIGHT THEORY (3)**
Prepares student for FAA Instrument Rating (Airplane) Exam. Physiological factors involved with instrument flying, the functioning of basic flight instruments and their use in controlling aircraft under instrument conditions, electronic aids and their use, communications, the airways system, IFR charts, regulations and procedures as related to instrument flight.
Prerequisite: private pilot's license or instructor's permission or
Prerequisite: ASC1100 ATT1100
Corequisite: ASC1210 ASC2110
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AVM1440 AIRPORT AND AIRLINE SECURITY (3)**
An introduction and analysis of the regulations and laws governing airport and airline security, including an in-depth look at Federal Aviation Regulations (FARs) 108, 121, 129, 191. Topics of discussion include: a historical perspective and events that have led to the evolution of aviation security, preventive measures, and current trends in security. An introduction to terrorist activities, motives, weapons of mass destruction, and countermeasures at threats to aviation.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AVM1940 AIRPORT OPERATIONS INTERNSHIP I (3)**
Practical applicable of acquired knowledge at a certificated airport. Student exposed to airport related environment including field inspections, security inspections and enforcement, air traffic control system, navigational aids, airspace inspections & familiarizations, wildlife issues, environmental impacts. Landside issues such as parking management, ground transportation systems, operational contract administration, revenue control systems, equipment monitoring, and bus operations. Terminal building operations including, physical building inspections, passenger services, passenger flow characterization, tenant and contractual lease requirements, safety and security of passenger terminals. The student is introduced to airport maintenance programs and systems as well as general aviation environment. Requires special application and criminal background check.
Prerequisite: instructor's permission or
Prerequisite: AVM1440 AVM2301 AVM2410
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AVM2301 GENERAL AVIATION MARKETING AND MANA (3)**
This course is designed to provide an overview of the general aviation industry including its history and important role within the air transportation sector of the economy. The varied uses of general aviation aircraft and the management and marketing role of the fixed base operator are thoroughly explored. Included are the basic marketing concepts and procedures involved in the sale of general aviation aircraft and components to private industry and government. Particular emphasis will be placed on the management of corporate/business aircraft and commuter airlines.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**AVM2410 AIRPORT MANAGEMENT (3)**
Provides a comprehensive examination of the major functions of airport management and the concepts underlying airport planning and construction. The controlling factors in
the development of an airport, such as size and forecasting volumes, design considerations; including runways configurations, site, location requirements, master planning and zoning laws will be examined. The socioeconomic effect of airports on the communities they serve will be explored.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AVM2450 AIRPORT PLANNING AND DESIGN (3)
Introduction to the initial design of airports and adaptations made as airports experience growth. Topics of discussion include; analysis of runway and taxiway design, terminal ramp areas, terminal facilities, airport parking and roadway systems based on airport capacity forecasts, intended use, funding, and community demographics. Discussions also include the modification and adaptation of existing airport facilities, airport master plans, air cargo facilities, airport access, and environmental impacts of airport planning and design.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AVM2510 AIRLINE MANAGEMENT (3)
An introduction to the administrative aspects of airline operation and management. Topics include the structure of the airline industry in the United States including first, second, third level carriers, the annual profit plan, uniform system of accounts and reports, organizational planning, demand analysis, scheduling, the theory of pricing, fleet planning, facilities planning and airline financing.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AVM2941 AIRPORT OPERATIONS INTERNSHIP II (3)
Practical application of acquired knowledge at a certificated airport. The student will be exposed to the finance, business, legal, and public relations aspects of Airport Management. Intern will gain experience in the collection of rents and allocation of monies in airport operation. Receive knowledge on how grant money is applied for and received as well as the business aspect of leasehold compliance. Exposure to legal aspect of airport operation, including compliance with federal and state laws, liability claims and procedures. Exposure to Airport Planning, Airport Master Plan, construction and refurbishment of airport facilities, airport layout plan, and airspace studies. Work with airport public relations and marketing personnel on communicating with media and marking the airport as a business enterprise toward potential airlines and tenants. Requires special application and criminal background check.

Prerequisite: instructor’s permission or
Prerequisite: ASC2320 AVM1940 AVM2450 AVM2510
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AVM2950 AVIATION EDUCATION TRAVEL SEMINAR (1)
Through a combination of Lecture and observation, this travel seminar to the Washington, D.C. area is designed to provide aviation students with an overview of the role played by major aviation associations, congressional subcommittees and Federal agencies that shape the aviation industry. Student will also have a guided tour of aeronautical museums or facilities.

Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

AVS0090C OCP E: AVIONIC FUNDAMENTALS ITEMS (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.

Lec Hrs=90 Lab Hrs=90 Oth Hrs=0 Fees=48.00

AVS0091C OCP F: AVIONIC INSTALLER (180 HRS) (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.

Lec Hrs=90 Lab Hrs=90 Oth Hrs=0 Fees=48.00

AVS0092C OCP G: AVIONICS COMMUNICATION SYST (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.

Lec Hrs=90 Lab Hrs=90 Oth Hrs=0 Fees=48.00

AVS0093C OCP H: NAVIGATION/SUPPORT SYSTEMS I (6)
The purpose of this program is to prepare students for employment as radio mechanics (85514608) and as avionics technicians (823.281-010). The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.

Lec Hrs=90 Lab Hrs=90 Oth Hrs=0 Fees=48.00

BCN1251C BUILDING CONSTRUCTION DRAWING I (4)
This is the first in a two-course sequence of construction drawing courses. The first half of the semester will include a review of basic drafting techniques. The second half will be devoted to an in-depth study of residential construction working drawings and how they are prepared. AutoCAD will be used extensively as one of the tools for preparing drawings.

Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=50.00

BCN1272 BUILDING CONSTRUCTION PLANS INTERPR (2)
This course is designed to provide an overview of construction documents and to develop the student's ability to quickly interpret working drawings. Emphasis is on architectural and structural details with limited coverage on mechanical and electrical aspects.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCN1930 BUILDING CONSTRUCTION SPECIAL TOPIC**

An introductory course for the student presently working in the building construction industry. Subjects include the South Florida Building Code, formwork and shoring.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCN2253C BUILDING CONSTRUCTION DRAWING II**

This is the second in the two-sequence of building construction drafting courses. The focus of this course will be on the development of advanced drafting techniques while gaining an understanding of more complex construction procedures for commercial buildings. Advanced AutoCAD techniques will be used extensively as one of the tools for preparing drawings.

Prerequisite: BCN1251C

**Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=50.00**

**BCN2560 MECHANICAL AND ELECTRICAL SYSTEMS**

Acquaints student with mechanical and electrical equipment commonly used in high rise and commercial buildings. Presents fundamentals of air conditioning, heating, lighting, communicating and wiring for electrical equipment. Includes a study of specialty equipment such as solar heating.

**Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCN2614C CONSTRUCTION ESTIMATING II**

A study of construction contracts, contractor responsibilities, job planning, scheduling, selection of equipment, methods of construction and safety standards. The student is required to make quantity takeoffs from a set of plans to do pricing of labor and materials.

Prerequisite: BCN1251C

**Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=7.00**

**BCN2742 CONTRACTOR’S LICENSE PREPARATION**

A study designed to prepare for the general contractor’s examination. State and Federal laws, safety codes, building codes, construction methods and technology, and practical field knowledge leading to Class, I, II or III license.

**Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=7.00**

**BCN2760 CONSTRUCTION PLAN REVIEW**

A course of training to prepare the student to function as an examiner of construction documents for permit to erect structures in compliance with all appropriate building codes. The course is designed around the mechanics of review presently employed by every municipality and other permitting agencies. This course is of particular value to presently employed inspectors preparing for promotion to the position of Plan Reviewer and presently employed reviewers who wish to hone skills, as well as students seeking a career in building code enforcement.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT1706 CONSTRUCTION DOCUMENTS**

This is designed to familiarize students with documents used in the construction industry, facets of the construction process, contractual relationships, the relationship of documents to each phase of construction and an overview of the Construction Specifications Institute's (CSI) 16 divisions. At the conclusion of the course, students will have gained the proficiency necessary to pass the Construction Documents Technologist (CDT) certification exam given by the CSI.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT1743 BUILDING CONSTRUCTION LAW**

A study of the legal aspects of construction contracts and the responsibilities arising particularly from the field operations. Also includes relationship of general contractor to to owner, architect, and subcontractor; mechanics lien law; bonds; labor law; and other statutes and ordinances regulating contractors.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT1750 BUILDING CONSTRUCTION FINANCING**

A study of building construction financing and related contract requirements. Topics include construction loans, permanent building mortgages, construction bids and contracts, penalty and incentive provisions, progress payments and retention, escalation provisions, cost extras performance and bid bonds, company profits, cash flow and business loans.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT1767 OSHA STANDARDS**

This course is designed to give students an awareness of the hazards associated with the construction industry's working environment. Emphasis is on OSHA regulations and the knowledge to improve the overall safety on a job site. At the successful conclusion of the course, students will receive OSHA certification.

**Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT1770 CONSTRUCTION ESTIMATING I**

An analysis and determination of building construction costs. Commences with the classification of materials, labor, and subcontracted work into the smallest manageable units. Development of a simple estimate for a residential structure.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT2040 MEP PLANS INTERPRETATION**

This course is designed to develop the student's ability to quickly interpret working drawings. Emphasis is on the details and specifications of mechanical, electrical, and plumbing plans.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT2710 INFRASTRUCTURE COORDINATION**

This course provides the student with an overview of the various agencies related to the construction industry. Special emphasis is on the need for and the manner of coordinating with these agencies. Students will receive exposure to the variety of permits, learn to interface with the agencies in order to coordinate the permit process, and understand how this coordinates with the project.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**BCT2760 BUILDING CODES AND REGULATIONS**

This is designed to familiarize students with documents used in the construction industry, facets of the construction process, contractual relationships, the relationship of documents to each phase of construction and an overview of the Construction Specifications Institute's (CSI) 16 divisions. At the conclusion of the course, students will have gained the proficiency necessary to pass the Construction Documents Technologist (CDT) certification exam given by the CSI.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT1706 CONSTRUCTION DOCUMENTS)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT1743 BUILDING CONSTRUCTION LAW)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT1750 BUILDING CONSTRUCTION FINANCING)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT1767 OSHA STANDARDS)

**Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT1770 CONSTRUCTION ESTIMATING I)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT2040 MEP PLANS INTERPRETATION)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT2710 INFRASTRUCTURE COORDINATION)

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

(BCT2760 BUILDING CODES AND REGULATIONS)
A rigorous review and study of the South Florida Building Code as it applies to structures and safety. For professionals employed as inspectors, architects, engineers and contractors. 

**BCT2787C MECHANICAL ELECTRICAL PLUMBING DRAW**  
(3)

The focus of this course will be on the development of advanced drafting techniques while gaining an understanding of more complex construction procedures for commercial and institutional buildings as it relates to mechanical, electrical, and plumbing. Advanced ArchiCAD, AutoCAD &/or MicroStation techniques will be used extensively for preparing drawings.  

Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

**BCT2941L BUILDING CONSTRUCTION FIELD EXPERIE**  
(1)

This course is designed to provide students with field experiences, including shadowing and job site visits which help the student understand the organizational structure of a variety of construction companies and how the companies function.  

Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=0.00

**BOT2010 GENERAL BOTANY**  
(3)

Course designed to treat entire plant kingdom with emphasis on structure, function, and genetics of flowering plants. Fundamental cell and tissue structure of both vascular and non vascular plants are studied. Associated physiological and chemical effects as related to function are emphasized. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BOT2010L  

Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**BOT2010L GENERAL BOTANY LABORATORY**  
(1)

Laboratory experiments and field trips to accompany BOT2010. Dissection exercises included. One two hour period weekly. Meets Area 4C general education requirements for the A.A degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BOT2010L  

Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=0.00

**BSC1005 GENERAL BIOLOGY**  
(3)

Course designed to give students an understanding of principles of Biology, while focusing on the nature and activities of living organisms. Course primarily for non-science majors (see BSC1005L). Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: BSC1005  

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=30.00

**BSC1005L GENERAL BIOLOGY LABORATORY**  
(1)

Two hours of laboratory weekly which may be taken concurrently with BSC1005. For students planning to transfer where laboratory is required for science credit. Dissection exercises included. Meets Area 4C general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. One two hour period weekly. Special fee charged. Placement by Testing Department. Pre or Corequisite: BSC1005  

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

**BSC1010 INTRODUCTION TO BIOLOGY I**  
(3)

This course is the first of a two-semester sequence introducing science majors to biological principles including cell structure and function, cell reproduction, biochemistry and cell metabolism, classical and molecular genetics, and genetic engineering. Corequisite: BSC1010L.  

Pre or Corequisite: CHM1040  

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**BSC1010L INTRODUCTION TO BIOLOGY I LABORATOR**  
(1)

This laboratory course is the first of a two-semester sequence introducing science majors to biological principles including cell structure and function, cell reproduction, biochemistry and cell metabolism, classical and molecular genetics, and genetic engineering. Dissection exercises included. 3-hours lab per week. Special fee charged. Meets Area 4A general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. Corequisite: BSC1010  

Pre or Corequisite: CHM1040  

Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=40.00

**BSC1011 INTRODUCTION TO BIOLOGY II**  
(3)

This course is the second of a two-semester sequence introducing science majors to biological principles including a study of the Five Kingdoms: Evolution and Population Dynamics, and Ecology. Prerequisite: BSC1010 BSC1010L. Corequisite: BSC1011L  

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**BSC1011L INTRODUCTION TO BIOLOGY II LABORATO**  
(1)

This laboratory course is the second of a two-semester sequence introducing science majors to biological principles including a study of the Five Kingdoms, Evolution and Population Dynamics, and Ecology. Laboratory exercises complement lecture topics. Dissection exercises included. 3 hours laboratory per week. Special fee charged. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S.  

Prerequisite: BSC1010 BSC1010L  

Corequisite: BSC1011L  

Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=40.00

**BSC1085 HUMAN ANATOMY AND PHYSIOLOGY I**  
(3)

A survey of the structure, function, and chemistry of the human body considering the following topics: body organization, the cell, tissues, membranes, glands, the Integumentary System, the Skeletal System, the Muscular System, the Nervous System, and the special senses. 3 hrs. Lec. per week. Meets Area 4A general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. CHM1032, CHM1040, or CHM1045 is very strongly recommended (see your program requirements). Placement by Testing Department or Pre or Corequisite: BSC1085L  

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**BSC1085L HUMAN ANATOMY AND PHYSIOLOGY I LABO**  
(1)

Laboratory exercises coordinated with BSC1085 including microscope observation, experimentation, study of anatomical models, and dissection. Dissection exercises
BSC1086 HUMAN ANATOMY AND PHYSIOLOGY II  
(3)  
A continuation of the Anatomy and Physiology sequence, including the following topics; the Circulatory System, the Respiratory System, the Digestive System, the Urinary System, Fluid and Electrolytes and the Reproductive System. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. 3 hrs. lec. wk. CHM1032, CHM1040, or CHM1045 is very strongly recommended (see your program requirements). Placement by Testing Department or Prerequisite: BSC1085 BSC1085L.  
Pre or Corequisite: BSC1086L.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BSC1086L HUMAN ANATOMY AND PHYSIOLOGY II LAB  
(1)  
Laboratory experiments coordinated with BSC1086, including microscope observation, study of anatomical models and dissection. Dissection exercises included. Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. CHM1032, CHM1040, or CHM1045 is very strongly recommended (see your program requirements). Special fee charged. Placement by Testing Department or Prerequisite: BSC1085 BSC1085L.  
Pre or Corequisite: BSC1086L.  
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=33.00

BSC1810 BIOLOGY PRINCIPLES FOR TEACHERS I  
(3)  
This course is designed for middle and high school science teachers. It covers the basic principles of biology including molecular biology, cell structure and function, and genetics. Lectures will include hands on activities and demonstrations. This is the first of a two course sequence. This course will not satisfy the general education requirements for the A.A. degree. Placement by Testing Department.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BSC1811 BIOLOGY PRINCIPLES FOR TEACHERS II  
(3)  
This course is designed for middle and high school science teachers. It is the second course in a two course sequence and covers the basic principles of modern biology, while focusing on the nature and activities of living organisms and their relationship to our planet. This course will not satisfy the general education requirements of the A.A. degree. Placement by Testing Department or Prerequisite: BSC1810.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BSC1815 SURVEY OF BIOLOGY FOR ELEMENTARY TE  
(3)  
Topics in biology which relate to the state- required minimum basic skills for K-5th grade will be explored including the definition of life, process of science, five kingdoms of organisms, animal biology, plant biology, human senses and ecology. Demonstrations and hands-on activities will be integrated into the program designed to strengthen the students' knowledge base in biology. Course meets state certification requirements for elementary school teachers. Does not meet A.A. general education requirements. Placement by Testing Department.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BSC2949 CO OP WORK EXPERIENCE  
(3)  
A course designed to provide training in a students field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Placement by Testing Department.  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BUL2241 BUSINESS LAW I  
(3)  
This course covers basic principles of law and their application to business problems. Topics include a discussion of legal rights and social forces; the legal relationships of government, business and society; law of contracts; personal property, bailments, sales of goods, torts and business crimes.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

BUL2242 BUSINESS LAW II  
(3)  
This course provides a study of the legal principles covering negotiable instruments, creditors' rights and secured transactions; agency, employer-employee relations; franchises, insurance, bankruptcy, partnerships, corporations, and real property.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CAP2775C DATA WAREHOUSING  
(3)  
In this course students will study the issues involved in planning, designing, building, populating, and maintaining a successful Data Warehouse. Students learn the reason why data warehousing is a compelling decision-support solution to today's business climate. Students also examine all phases and tasks of the Data Warehouse design process, including data modeling, entity relationship diagramming, dimensional modeling, physical modeling, and Warehouse metadata management. Prerequisite: COP2740C.  
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=60.00

CAP2777C DATA MINING  
(3)  
This course will provide students with an understanding of the concepts of Data-Mining. Students will also learn how to apply specific Data-Mining techniques. Statistical methods of data analysis will be covered as well as industry applications of Data-mining tools. Topics include decision tables, decision trees, classification rules, association rules, clustering, statistical modeling, and linear models. Case studies using large data sets taken from real-life applications will also be included. Additional topics may include: problems encountered when dealing with large data sets and deciding how much data is enough. Prerequisite: CAP2775C STA2023.  
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=60.00

CCJ1020 INTRODUCTION TO CRIMINAL JUSTICE  
(3)
Introduction to the historical and philosophical background of the agencies of the Criminal Justice System. An examination of the relationships between the police, courts and correctional systems.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CCJ2191 HUMAN BEHAVIOR IN CRIMINAL JUSTICE (3)
A consideration of human behavior and how it relates to the duties and responsibilities of the criminal justice practitioner.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CCJ2500 JUVENILE JUSTICE (3)
An analysis of the criminal justice system as it relates to juveniles. Major topics include: police practices (such as detention, searches and interrogation) when dealing with juveniles, court procedure in juvenile cases and different theories of juvenile rehabilitation. Instructor's approval or student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CCJ2933 CORRECTIONS PRACTICUM (3)
This course offers practical experiences in corrections or related disciplines of criminal justice giving the student the opportunity to apply classroom knowledge. Instructor's approval or permission of instructor.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CCJ2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CDA1302C A+ HARDWARE (3)
This course provides students with the hands-on experience and knowledge to properly install, configure, upgrade, troubleshoot, and repair microcomputers. This includes desktop and portable systems, printers, and basic networking. Students will also learn common safety and preventative maintenance procedures, as well as effective behaviors that contribute to customer satisfaction. The skills developed by students who complete this course will prepare them for the A+ Core Hardware Certification Exam.

Prerequisite: CDA1403C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=125.00

CDA1403C A+ OPERATING SYSTEMS (3)
This course provides students with an understand- ing of the Command Line, Windows 9X, and Windows 2000 for installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. The skills developed by students who complete this course will prepare them for the A+ Operating Systems certification exam. Students without a computer background are strongly advised to complete CGS1100 - Introduction to Computer Applications before undertaking this course.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=125.00

CEM003 MAINTAINING RESIDENTIAL TURF (3)
Course trouble shooting and solving turf grass problems in residential and small commercial properties.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=100.00

CEN1300C MICROSOFT WINDOWS PROFESSIONAL (4)
This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows Professional on stand-alone and client computers that are part of a workgroup or domain. The skills developed by students completing this course will help prepare them for the Microsoft Windows Professional certification. Students who do not possess a networking background are strongly encouraged to complete CEN1509C (Network+) before attempting this course.

Prerequisite: CDA1403C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1310C IMPLEMENTING MICROSOFT WINDOWS SERVER (4)
This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows Server to create file, print, Web, and Terminal servers. It also provides students with the prerequisite knowledge and skills required for course CEN1315C, Implementing a Microsoft Windows Network Infrastructure. The skills developed by students completing this course will help prepare them for the Microsoft Server certification exam.

Prerequisite: CDA1302C CDA1403C CEN1300C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1315C IMPLEMENTING MICROSOFT WINDOWS INFRASTRUCTURE (4)
This course is designed for support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows Server products. It also provides students with the prerequisite knowledge and skills required for course CEN1321C, Implementing Microsoft Windows Directory Services. The skills developed by students completing this course will help prepare them for the Microsoft Network Infrastructure certification exam.

Prerequisite: CDA1302C CENA1430C CEN1300C CEN1301C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1321C IMPLEMENTING MICROSOFT WINDOWS ACTIVITIES (4)
This course is designed to provide with the knowledge and skills necessary to install, configure and administer Microsoft's Windows Active Directory services. The courses also focus on implementing Group Policy and performing the Group Policy-related tasks that are required to centrally manage users and computers. The skills developed by students completing this course will help prepare them for the Microsoft Active Directory certification exam.

Prerequisite: CDA1302C CDA1403C CEN1300C CEN1301C CEN1315C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1323C DESIGNING A SECURE MICROSOFT WINDOW (4)
This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks. The skills developed by students from completing this course will help prepare them for the Microsoft Designing a Secure Windows Network Certification exam.

Prerequisite: CEN1300C CEN1301C CEN1315C CEN1321C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00
CEN1325C DESIGN MICRST FT WINDOW SERV
ACTV DIR
(4)
This course provides students with the knowledge and skills necessary to design a Microsoft Windows directory service and network infrastructure on an enterprise network. Strategies are presented to assist the student in identifying the information technology needs of an organization, and then designing an Active Directory structure and network infrastructure that meets those needs. The skills developed by students completing this course will help prepare them for the Microsoft Designing Directory Service and Network Infrastructure certification exam.
Prerequisite: CEN1300C CEN1301C CEN1315C CEN1321C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1327C PLAN MICROSOFT WINDOWS INFRASTRUCTU
(4)
This course provides students with the information and skills necessary to plan and maintain a networking services infrastructure that supports the required network applications. Each unit provides a solution based on the needs of the organization. Some Microsoft Windows networking solutions require a single technology, such as DHCP to provide Internet Protocol (IP) address configuration support. In other situations, several technology options exist, such as Open Shortest Path First (OSPF), Routing Information Protocol (RIP), and Internet Group Management Protocol (IGMP), to maintain an IP routing scheme. The skills developed by students completing this course will help prepare them for the Microsoft's Planning and Maintaining Network Infrastructure certification exam.
Prerequisite: CEN1300C CEN1301C CEN1315C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1503C NETWARE ADMINISTRATION
(4)
Learn the basics of managing a NetWare network. This course teaches you how to use NetWare administrative tools to set up, manage and use basic network services, including file systems, network printing, security and e-mail. The skills developed by students completing this course will help prepare them for one or more Novell CNE Certification Exams.
Prerequisite: CDA1302C CDA1403C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1504C NETWARE ADVANCED ADMINISTRATION
(4)
Learn advanced administration skills such as tuning the network and server for better performance and managing complex tree structures. This course teaches you how to oversee a complex NetWare networking environment, including Novell Directory Services (NDS) partitioning and replication, and time synchronization strategies. The skills developed by students completing this course will help prepare them for one or more Novell CNE Certification Exams.
Prerequisite: CEN1503C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CEN1509C NETWORK+
(4)
After successfully completing this course, student will understand the layers of the OSI model, be able to describe the features and functions of network components, and have the skills needed to install, configure, and troubleshoot basic networking hardware peripherals and protocols. The skills and knowledge developed by students in this course will help prepare them for the CompTIA Network+ certification exam.
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET104C HOME TECHNOLOGY INTEGRATOR+
(4)
HTI+ is a vendor-neutral, cross-industry credential providing recognition that a Home Technology Integrator has attained a standard of excellence in the integrated home networks industry. It is based on a set of standards designed to measure mastery of core competencies in the installation, integration and troubleshooting of: Home Security, Audio/Video, Computer Networks, Electrical Wiring, HVAC (Heating/Air Conditioning Systems), Cable/ Satellite, Broadband, Telecommunications and Structured Wiring. This course helps prepare students to be HTI professionals.
Lec Hrs=52 Lab Hrs=12 Oth Hrs=0 Fees=150.00

CET114C DIGITAL TECHNIQUES
(5)
The study and application of digital logic circuits. Topics include binary, octal and hexadecimal number systems, Boolean algebra, Karnaugh mapping, logic gates, flip flops, counters, and registers, applications in combinational and sequential logic systems. Extensive laboratory practice.
Lec Hrs=64 Lab Hrs=32 Oth Hrs=0 Fees=10.00

CET1123C MICROPROCESSORS I
(4)
Study of the organization and operation of a stored program digital computer with emphasis on CPU operation in response to assembly and machine language instructions. Methods of selecting and operating I/O devices under program control will also be studied. Course work includes sophisticated assembly language programming for the microprocessor.
Prerequisite: instructor approval or
Prerequisite: CET1114C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=10.00

CET1137C TECHNICAL COMPUTER APPLICATIONS
(3)
Technical computer applications, including the use of the Windows operating system, computer applications such as word processing, spreadsheets, presentation graphics, an introduction to CAD (Computer-Aided Design) and electronic simulation software is presented with emphasis on the solution of problems in the Engineering Technology fields. This course is geared towards the Engineering Technology student.
Prerequisite: EET1015C MBI1325
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=10.00

CET1600C CISCO NETWORKING I
(4)
This is the first in a series of four courses designed to provide students with classroom experience in the current and emerging networking technology of Cisco systems. Instruction includes, but is not limited to, network terminology and protocols, network standards, network topologies, LANs, WANs, the OSI model, IP addressing, cabling, cabling tools, routers, and router programming. Particular emphasis is given to decision-making and problem-solving techniques. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.
Prerequisite: CDA1302C CDA1403C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET1610C CISCO NETWORKING II
(4)
This is the second in a series of four courses designed to provide students with classroom experience in the current and emerging networking technology of Cisco systems. Instruction includes, but is not limited to, network terminology and protocols, network standards, Ethernet, Token Ring, Fiber Distributed Data Interface, TCP/IP addressing protocol, routing, dynamic-routing, and network administrator's role and function. Particular emphasis is given to decision-making and problem-solving techniques. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.

Prerequisite: CET1114C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET1615C CISCO NETWORKING III
This is the third in a series of four courses designed to provide students with classroom experience in the current and emerging networking technology of Cisco systems. Instruction extends the student's knowledge and practical experience with switches and Local Area Network (LAN) and Virtual Local Area Network (VLAN) design, configuration, and maintenance. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.

Prerequisite: CET1115C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET1620C CISCO NETWORKING IV
This is the fourth in a series of four courses designed to provide students with classroom experience in the current and emerging networking technology of Cisco systems. Instruction introduces and extends the student's knowledge and practical experience with Wide Area Networks (WANs), Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and Frame Relay design, configuration, and maintenance. The skills developed by students completing this course will help prepare them for the Cisco CCNA certification exam.

Prerequisite: CET11615C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET1630C NETWORK CABLEING TECHNOLOGIES
Learn about standards, codes, and emerging trends of LAN cabling. Design and install a cabling system that enhances your LAN topology, maximizes your network performance, and eliminates cabling downtime. Work with the latest equipment to design, install, and troubleshoot copper and fiber optic network systems.

Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=100.00

CET1850C CISCO NETWORK ACAD.: FUNDAMENTALS O
This Cisco Networking Academy course in wireless technology focuses on the design, planning, implementation, operation and troubleshooting of Wireless LANs. It offers a comprehensive overview of technologies, security, and design best practices, with particular emphasis on hands-on skills.

Prerequisite: CET11610C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET2131C MICROPROCESSORS II
Analysis of 8/16 bit microprocessors and microcomputers with emphasis on logic, timing and interfacing of the microprocessor. The student will design circuits and programs to interface memory and peripheral devices in a microprocessor based system. Extensive Laboratory practice is an integral part of this course. Students will design and develop a microprocessor project board as part of this course. This will require the student to purchase various electronic components costing approximately $125.

Prerequisite: CET1114C CET1123C
Lec Hrs=56 Lab Hrs=24 Oth Hrs=0 Fees=0.00

CET2133C COMPUTER TECHNOLOGY I
This course will cover the microprocessor technology related to the Intel 8086 and family of microprocessors and microchips. The student will learn the architecture and instruction set and then use machine and assembly language programming to design and implement interfacing from a microprocessor based system to peripheral devices used in instrumentation and engineering applications.

Prerequisite: CET2114C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

CET2489C NETWORKING TECHNOLOGY
This course covers topics in networking technology including OSI communications, networking and services, as well as troubleshooting of networking devices and components. Networking optimization is also included.

Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=16.00

CET2491C NETWORK ADMINISTRATION
This course is designed to teach advanced network administration. Topics will include the design and implementation of NDS, advanced netware installation and migration, advanced netware files system and security, and advanced network printing. Basic knowledge of microcomputer networking is required.

Prerequisite: CET2489C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=24.00

CET2494C ADVANCED NETWORKING
This course is for support professionals who are new to networking services and will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses various networking services. It also provides students with the prerequisite knowledge and skills required for Implementing and Administering Directory Services such as Microsoft Active Directory.

Prerequisite: CET2489C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=24.00

CET2625C CISCO NETWORKING V
This fifth course in the Cisco Academy curriculum offers lectures, hands-on labs, case studies, and written exercises to give you all the advanced skills needed to configure Cisco routers. Learn the complex concepts and commands necessary to configure Cisco routers for scalable operation in large and/or growing internetworks.

Prerequisite: Proof of CCNA certification.
Lec Hrs=80 Lab Hrs=16 Oth Hrs=0 Fees=150.00

CET2626C CISCO NETWORKING VI
This powerful sixth course in the Cisco Academy sequence covers the fundamental and practical knowledge needed to implement Cisco Remote Access Network environments. In the hands-on labs, you will configure ISDN, BRI, and PRI traffic and verify connectivity with common network tools.

Prerequisite: CET2625C
Lec Hrs=64 Lab Hrs=16 Oth Hrs=0 Fees=150.00

CET2627C CISCO NETWORKING VII
The seventh course in the Cisco Academy sequence teaches you how to build campus networks using multilayer switching technologies over high speed Ethernet. This course addresses the integration of routing and switching technologies to create an efficient campus network. You will identify the Cisco products and services that enable connectivity and traffic transport over Fast Ethernet. Implement necessary services at each layer of the network to all users to obtain membership to multicast groups in a working multilayer switched network.

Prerequisite: CET2625C
Lec Hrs=64 Lab Hrs=16 Oth Hrs=0 Fees=150.00

CET2660C CISCO FUNDAMENTALS OF NETWORK SECUR (3)
Introductory Network Security course focusing on the overall security processes with particular emphasis on hands-on skills in the following areas: Security policy design and management; Security technologies, products and solutions; Secure router design, installation, configuration, and maintenance; AAA implementation using routers; Intrusion Detection (IDS) implementation using routers; VPN implementation using routers.
Prerequisite: CET2660C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CET2667C CISCO FUNDAMENTALS OF NETWORK SECUR (3)
Introductory Network Security course focusing on the overall security processes with particular emphasis on hands-on skills in the following areas: Security policy design and management; Security technologies, products and solutions; Firewall and design, installation, configuration, and maintenance; AAA implementation using PIX Security Applications; Intrusion Detection (IDS) implementation using PIX Security Applications; VPN implementation using PIX Security Applications.
Prerequisite: CET2660C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CGS1000 INTRODUCTION TO COMPUTERS (3)
This course provides an introduction to basic computer and Internet use. It covers computer hardware and software fundamentals (including the use of Windows), key productivity applications (including word processing, spreadsheets, and presentation systems), and living in an online world (including network fundamentals, e-mails, and the effective use of the Internet as a communication tool and information resource). Students will develop basic computer skills to aid them with college studies and workforce readiness. Hands-on use of a personal computer is required.
Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=52.00

CGS1061C COMPUTER CONCEPTS (1)
This course presents an overview of the fundamentals and capabilities of the computer. Students will become familiar with computer concepts, will be introduced to an operating system and environment, and will gain a basic understanding of microcomputer applications. This course will satisfy Area 5B general education requirements for the A.A. degree. It will also fulfill the computer competency requirement for some A.A.S./A.S. degree. Students should check the appropriate A.A.S./A.S. degree program sheet for specific course requirements. Various lab activities are conducted throughout this course.
Lec Hrs=8 Lab Hrs=8 Oth Hrs=0 Fees=5.00

CGS1100 INTRODUCTION TO COMPUTER APPLICATIONS (3)
This course is an introduction to computers and their applications. Students will learn to identify the basic components and devices that comprise a computer system; to use the Internet as a source of information and a means of communication; and to use application software packages (including word processing, spreadsheet, database, and presentation graphics programs).
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=50.00

CGS1510 ELECTRONIC SPREADSHEET (3)
This course provides hands-on applications with a spreadsheet software package. Through Lecture and Lab practices, students will develop skills that create, manipulate and utilize spreadsheets.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=24.00

CGS1540C DATABASE MANAGEMENT (3)
This course is an introduction to database management. Using appropriate database software, students will learn to maintain and manipulate data in an organized, accessible and accurate manner. Emphasis is placed on the use of microcomputer database management software for common business applications.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=24.00

CGS1555C INTRODUCTION TO THE INTERNET (3)
This course will provide students with an introduction to the Internet including the World-Wide Web, a world-wide network of information that resides on the Internet. The Web contains a wealth of information including text, graphics, audio, and video and a wide variety of services such as online libraries, catalogs, shopping, games and various other important resources.
Prerequisite: CGS1000 or CGS1570 or Instructor's approval.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=24.00

CGS1557C INTERNET SITE DESIGN (3)
This course is intended to provide technical, programming and administrative background and experience for a career with the World-Wide Web. Students should have a working familiarity with the Internet and the World-Wide Web, such as could be gained in CGS1555C, Introduction to the Internet.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=24.00
CGS1577C PRESENTATION SYSTEMS (3)
Design and develop a multimedia presentation project with linear design. Students will learn the differences between a presentation and an authoring program. The student will use Internet and other on-line resources to research sources of multimedia and learn CD-ROM mastering as well as other platforms for delivery of multimedia. Using audience analysis, defining content outline with storyboards and creating a script, students will create a comprehensive presentation project which can be used in lecture format or as an endless loop to repeat the presentation. Projects will include text, graphics, sound, video, and animation by creating the components in the program, or importing, or scanning. Using graphic software, graphics and photos can be enhanced and manipulated for importing into the presentation program.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

CGS2263 LOCAL AREA NETWORKING (3)
This course is designed as a comprehensive study of microcomputer networking. Topics include the selection, installation, maintenance, and management of network software and hardware.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CGS2554C E-COMMERCE WEB DEVELOPMENT (3)
This course teaches development of E-Commerce web sites for back-end server applications. It stresses development of database information and manipulation for web delivery. Students should have complete knowledge of HTML and database management, before taking this course. Students will conceptualize and develop E-Commerce web sites.
Prerequisite: CGS1540C CGS1557C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

CGS2810C HELP DESK (4)
This course is designed to teach students the skills they need to effectively provide technical support to computer users. The course explores topics such as customer service, help desk operations, help desk management, needs assessment, training, and facilities management. Students will learn troubleshooting techniques, installation procedures, end user documentation skills, and product evaluation strategies.
Prerequisite: CDA1302C CDA1403C CEN1509C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=50.00

CGS2820C SERVER-SIDE SCRIPTING (3)
This course will help students understand and utilize Server Side Scripting technology. Students will work with Server Side Scripting to create Internet-based applications. Students will learn to connect to databases, work with files, extract data from HTML forms, and how to build secure applications.
Prerequisite: COP1334C CTS1860C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CGS2840C CIW: E-COMMERCE STRATEGIES AND PRA (4)
In this course, students will implement a genuine transaction-enabled business-to-consumer Web site. They get hands-on experience implementing the technology to engage cardholders, merchants, issuers, payment gateways and other parties in electronic transactions. This course, in combination with CGS2843, prepares students for the CIW E-Commerce Strategies and practices certification exam.
Prerequisite: CGS2843
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CGS2843 CIW: E-COMMERCE STRATEGIES AND PRA (3)
This course teaches students how to conduct business online and explores the technological issues associated with constructing an electronic-commerce Web site. Students will examine strategies and products available for building electronic-commerce sites, examine how sites are managed, and explore how they can complement an existing business infrastructure. This course, in combination with CGS2840C, prepares students for the CIW E-Commerce Strategies and Practices certification exam.
Prerequisite: CTS1860C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CGS2871C MULTIMEDIA AUTHORING I (3)
This course provides an introduction to multimedia authoring using interactive software to create training materials for educational, Internet, Kiosks, and CD ROM delivery. Development of multimedia integrates graphics, sound, animation, text, and video into interactive applications. Multimedia authoring software such as Macromedia's Authorware (or similar) will be used.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=28.00

CGS2872C STREAMING MEDIA FOR THE WEB (3)
Students will learn how to create professional quality streaming audio and video content for the web using programs like Sound Forge, Adobe Premiere, and various other industry specific software applications. Additional topics covered include integrating streaming audio and video into web pages and email, SMIL authoring, creating narrated screen capture tutorials, and live broadcasting. A strong emphasis is placed on both real world and distance learning applications.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

CGS2874C MULTIMEDIA AUTHORING II (3)
Continuation of multimedia CGS2871C with emphasis on functions and variables and development of complex interactive titles for cross platform delivery. Custom variables will be created. In-depth projects will be developed using video, audio, text, and graphics while controlling the program direction, testing, and debugging. Hypertext and development of on-line help modules and documentation will be included in the projects.
Prerequisite: CGS2871C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

CGS2877C WEB ANIMATION (3)
Web developers use Flash (or another animation tool) to create beautiful, resizable, and extremely small and compact navigation interfaces, technical illustrations, long-form animations, and dazzling effects for web sites and other Web-enabled devices (such as WebTV). Students will create graphics and animations using drawing tools or imported vector artwork; animate that artwork; and make interactive movies.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

CHD1320 CURRICULUM PLANNING FOR EARLY CHILD (3)
Content and methods of planning developmentally appropriate activities to enhance children's cognitive, social, emotional, physical and creative development. Lesson plan formats and daily scheduling will be covered.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHD1331 CREATIVITY FOR YOUNG CHILDREN
This course offers an understanding of theory in children's art, music, and movement activities and their practical classroom application through process oriented and teacher activities.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHD1334 CHILDREN'S LITERATURE & LANGUAGE AR (3)
This historical perspective will guide a study of qualitative books, such as fairy tales, folk tales, poems, and nursery rhymes. The role of the teacher in the child's acquisition of communications skills will be investigated.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHD1338 MATH & SCIENCE FOR THE YOUNG CHILD (3)
Designed to foster understanding of the development of mathematical thinking and the mental ability of the preschool child. The science portion will enable the pupil to become familiar with the concepts and techniques of "sciening."

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHD1940 PRACTICUM I: OBSERVATION AND EVALU (3)
Offers an opportunity to observe children in child care settings, gain understanding of their behavior and evaluate their environments.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=11.10

CHD2441 PRACTICUM II (3)
Facilitates practical experiences in techniques of early childhood education. Requires qualified supervision in a school or center for preschool education.

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=0.00

CHD2800 ADMIN AND MGMT IN E C EDUCATION (3)
This course will emphasize the design and operation of a childcare facility. Classroom exposure will emphasize and assess site selection, building design and supervisory functions, equipment selection, activity planning, scheduling, financing, budgeting, record-keeping, and marketing.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM1025 INTRODUCTION TO CHEMISTRY (3)
Selected topics from general chemistry and organic chemistry. Topics covered include chemical measurements, stoichiometry, atomic structure, periodic table, chemical bonding, inorganic compound nomenclature and formula writing, gases, liquids, solids, solutions, acid-base chemistry, oxidation-reduction chemistry, energy, hydrocarbon nomenclature, functional groups of organic chemistry, and nuclear chemistry. Meets Area 4B general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or

Prerequisite: MAT0024 REA0006C
Pre or Corequisite: CHM1025
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=25.00

CHM1052L CHEMISTRY FOR HEALTH SCIENCES LAB (1)
Laboratory exercises to accompany CHM1052; including Inorganic, Organic and Biochemical experiments. Placement by Testing Department or

Prerequisite: MAT0024
Pre or Corequisite: CHM1052
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM1040 GENERAL CHEMISTRY A (EXPANDED SEQU) (3)
First course of a three semester expanded sequence CHM1040, CHM1041, CHM1046E. This sequence includes two laboratories: CHM1045L to be taken concurrently with CHM1041; and CHM1046L to be taken with CHM1046E. This course introduces students to chemical measurement, stoichiometry, atomic structure, the periodic table, chemical bonding, inorganic formula writing and the naming of inorganic compounds and changes in energy. 3 hrs. lec/wk. Meets Area 4B general education requirements for the A.A. degree. Meets Area 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or

Prerequisite: MAT1003
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM1041 GENERAL CHEMISTRY B (EXPANDED SEQU) (3)
Second course of a three semester sequence, CHM1040, 1041, 1046E. This sequence includes two labs; CHM1045L to be taken concurrently with CHM1041 and CHM1046L to be taken with CHM1046E. This course further develops modern chemical concepts, including, gases, liquids, solids, solution, acid base chemistry, ionic reactions, oxidation reduction, thermodynamics and descriptive chemistry of non-metals. 3 hrs lec/wk. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or

Prerequisite: CHM1040
Pre or Corequisite: CHM1045L MAC1105
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM1045 GENERAL CHEMISTRY I (3)
First course in a two term sequence, CHM1045 and CHM1046. This sequence includes two labs CHM1045L to be taken concurrently with CHM1045; and CHM1046L to be taken with CHM1046. Topics covered include chemical measurements, stoichiometry, atomic structure, periodic table, chemical bonding, inorganic compounds nomenclature and formula writing, gases, liquids, solids, solutions, acid base chemistry and ionic reactions and descriptive chemistry of non-metals. To enroll, students must have had some Chemistry at the high school or college level. Meets Area 4B
This course will not satisfy the general education requirements for the A.A. degree. Placement by Testing Department.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM1094 PRINCIPLES OF CHEMISTRY FOR TEACHER

This course is designed for middle and high school science teachers and continues the discussion of the basic principles of chemistry and the practical application of those principles that were the focus of CHM1093. This course will not satisfy the general education requirements for the A.A. degree.
Placement by Testing Department or
Prerequisite: CHM1093
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM2210 ORGANIC CHEMISTRY I

First part of a two course sequence presenting the structure, preparation, reaction, and nomenclature of various classes of hydrocarbons and their derivatives. Reaction electronic mechanisms are interpreted and unified in the light of modern theory. Three hours weekly. Placement by Testing Department or
Prerequisite: CHM1046 CHM1046L
Pre or Corequisite: CHM2210L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM2210L ORGANIC CHEMISTRY I LABORATORY

Organic laboratory experiments and preparations to accompany CHM2210. Special fee charged. Placement by Testing Department or
Prerequisite: CHM1046 CHM1046L
Pre or Corequisite: CHM2210
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=45.00

CHM2211 ORGANIC CHEMISTRY II

Second of the two-part organic chemistry course. A continuation of the study of the remaining classes of organic compounds including use of spectroscopic methods and an introduction to bio-organic molecules. Three hours weekly. Placement by Testing Department or
Prerequisite: CHM2210 CHM2210L
Pre or Corequisite: CHM2211L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CHM2211L ORGANIC CHEMISTRY II LABORATORY

Appropriate experiments and preparation to compliment CHM2211. Special fee charged. Placement by Testing Department or
Prerequisite: CHM2210 CHM2210L
Pre or Corequisite: CHM2211
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=50.00

CIS232I SYSTEMS DEVELOPMENT AND DESIGN

This course surveys systems and procedures of internal control. Students learn through lectures and practical case studies how to apply equipment and programming techniques to actual business data processing applications.
Prerequisite: COP1334C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CIS2342 DESIGNING DATA SERVICES AND DATA MANAGEMENT

This course teaches students to analyze business requirements to determine data storage and data access requirements.
Students will learn to build data models and design data services.
Prerequisite: COP1334C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CIS2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD0773 INTERPERSONAL SKILLS 1
Lec Hrs=22 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD0771 CRIMINAL JUSTICE LEGAL 2 CORRECTIONS
(3)
This course presents the characteristics and behaviors of people a Correctional Probation Officer must supervise and strategies for dealing with individuals of that population.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD0794 CORRECTIONAL PROBATION SUPERVISION
(1)
This course presents the characteristics and behaviors of a Correctional Probation Officer must supervise and strategies for dealing with individuals of that population.
Lec Hrs=58 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD0795 CORRECTIONAL PROBATION FIREARMS
(0)
This course introduces firearm, presents the nomenclature and safety rules, and familiarizes the student with good shooting habits.
Lec Hrs=2 Lab Hrs=14 Oth Hrs=0 Fees=31.60

CJD0796 LEGAL CROSS-OVER CPO TO LEO
(1)
This course presents material on legal topics which enables a Florida Correctional Probation officer to cross over to a law Enforcement Officer without having to complete the entire basic training courses.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00
CJD0797 CROSS-OVER CORRECTIONAL PROBATION T (1)
This course presents material on Communications and Interpersonal Skills topics which enable a Florida Correctional Probation Officer to cross over to a Law Enforcement Officer without having to complete the entire basic Law Enforcement training courses.
Lec Hrs=46 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD1420 CORRECTIONAL LAW (3)
A course in practical law for correctional personnel. Study includes law regulating use of force, civil rights of prisoners, constitutional law, legal service, disciplinary procedures, parole and current case law.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD1762 CRIMINAL JUSTICE COMMUNICATIONS (3)
This course is designed to teach the student those communication skills which are essential for the law enforcement officer, such as taking statements, report writing and procedures, use of radio, and interviewing and interrogation techniques. Acceptance into the A.S. Criminal Justice Academy-track degree program is a prerequisite for this course.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJD1763 INTERPERSONAL SKILLS IN CRIMINAL JU (3)
A study of skills needed by police officers to deal with citizens in general and special needs citizens, such as the elderly, juveniles, mentally handicapped, and those in crisis. Special emphasis is also placed on stress recognition and reduction among police officers. Acceptance into the A.S. Criminal Justice Academy-track degree program is a prerequisite for this course.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJK0070 INTRODUCTION AND LAW (2)
This course is part of the criminal justice standards and training commission CMS Law Enforcement Basic Recruit Certification Program. This course is designed to introduce the student to the academy, graduation requirements, and recruit expectations during their academy attendance, to enable students to understand the components of the criminal justice system and the proper use of the chain of command in an organization, to enable the student to learn constitutional law and Florida statutes, and to enable the students to understand the police code of ethics. This is a limited access course. It requires admission to the Criminal Justice Training Academy Law Enforcement Program.
Lec Hrs=67 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJK0010 HUMAN ISSUES (1)
In this foundation course, the student will explore the human issues encountered by the law enforcement officer. The issues are categorized into human diversity, mental illness and the physically challenged.
Lec Hrs=50 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJK0015 COMMUNICATIONS (2)
This presents topics of street gangs, the elderly, interviewing, officer survival and crisis intervention. Emphasis is on communications: sources, procedures and documentation.
Lec Hrs=77 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJK0020 VEHICLE OPERATIONS (1)
This course presents the dynamics of emergency vehicle operations and develops skills in operating a motor vehicle in the law enforcement environment. A demonstration of proficiency is required.
Lec Hrs=24 Lab Hrs=24 Oth Hrs=0 Fees=62.00

CJK0031 FIRST AID FOR CRIMINAL JUSTICE OFFI (1)
This course provides life-saving skills development in emergency medical situations appropriate for the law enforcement officer, including CPR and communicable diseases.
Lec Hrs=24 Lab Hrs=16 Oth Hrs=0 Fees=33.00

CJK0040 FIREARMS (2)
This course develops proficiency with the semi-auto pistol used by a law enforcement officer. Qualification is required at various lighting levels.
Lec Hrs=4 Lab Hrs=78 Oth Hrs=0 Fees=111.00

CJK0050 DEFENSIVE TACTICS (2)
This course provides skills development for the officer, appropriate for the threat level, within Florida law, Demonstration of proficiency is required.
Lec Hrs=4 Lab Hrs=76 Oth Hrs=0 Fees=53.00

CJK0060 PATROL (1)
This course explores the law enforcement officer’s various activities while on patrol; the process of arrest, responding to alarms and documentation of each activity.
Lec Hrs=57 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJK0070 INVESTIGATIONS (1)
This course presents the general process and procedure for conducting and investigating responding to the scene, preliminary investigation, processing the crime scene and follow-up investigations.
Lec Hrs=53 Lab Hrs=0 Oth Hrs=0 Fees=0.00
This course is designed to provide transitioning officers the tactical applications training required for the new discipline not previously completed by the officer. This course explores the knowledge and procedures necessary for an officer engaging in various activities, to include: court process, incident command system, bombs and explosives, and crowd control. In addition, this course is mandated by the Florida Criminal Justice Standards and Training Commission for inclusion in the Crossover from Correctional Officer to Law Enforcement Officer training program effective May 11, 2005. This is a limited access course. It requires active certification and employment as a State of Florida correctional officer.

Lec Hrs=40 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**CJL1062 CONSTITUTIONAL LAW**

An examination of the U.S. Constitution, its amendments and its impact on present day criminal justice practitioners. 3 hrs. Lec.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**CJL1100 CRIMINAL LAW**

Course will be concerned with the sources and elements of criminal law. Emphasis will be placed on criminal law as related to law enforcement officers with particular attention...
given to the rights and responsibilities of officers in enforcing various criminal laws. 3 hrs. lec.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJJL1130 CRIMINAL EVIDENCE AND COURT PROCEDU (3)
An examination of the rules governing the admissibility of evidence, specifically as they affect the law enforcement officer in the processes of arrest, force, search, seizure, preservation, custody, testimony and courtroom procedures. 3 hrs. lec.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJJ2060 CIVIL RIGHTS (3)
A survey course of the Federal Rights legislation to include the 13th through 15th Amendments of the Reconstruction Era and the Civil Rights legislation of the 60’s. Special topics include consideration of the American Disabilities Act, Age Discrimination in Employment Act, Equal Employment Opportunities Act, Equal Pay Act, Affirmative Action, and Sexual Harassment.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2100 CRIMINAL INVESTIGATION (3)
The investigation activity of a police department is studied to evaluate its organization, function and relationship with other divisions and agencies. Emphasis is placed on the procedural aspects and methodology employed in the investigative process. The student will know the elements of preliminary and follow-up investigations, to include methods of crime scene search, collection and preservation of evidence, and chain of custody concepts.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2110 INTRODUCTION TO CRIMINALISTIICS (3)
An introduction to the scientific aspects of investigation known as criminalistics, with emphasis on crime scene techniques, the collection and preservation of evidence and the examination of evidence. Students will be familiarized with the capabilities and limitations of a police laboratory. Special fee charged. 1 hr. Lec. 2 hrs. Lab.
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=15.00

CJT2115 ADVANCED FORENSIC INVESTIGATION (3)
This course explores the scientific and investigative methods used to solve serious crimes against persons. Topics include distinguishing between causes of death, such as accidental, suicide or homicide; the use of autopsies; child and elderly abuse investigation. (NOTE: this course utilizes graphic material that may make some students uncomfortable.) Instructor's approval or
Prerequisite: CJT2100 CJT2110
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2120 FORENSIC PHOTOGRAPHY AND VISUAL DOC (3)
The student is taught specific skills necessary to visually document and photographically preserve crime scenes and evidence, from both technical and legal standpoints.
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=30.00

CJT2130 CRIMINALISTICS PRACTICUM (3)
The knowledge and skills developed in the prerequisites are coordinated in practical exercises which will develop expertise in the complete processing of crime scenes. Special fee charged. 1 hr. lec. 2 hrs. lab.
Prerequisite: CJT2100 CJT2110 CJT2120

CJT2250 POLYGRAPH THEORY AND OPERATIONS (3)
Includes the history and development of the polygraph with further emphasis on mechanics of instrument operation, maintenance and calibration. Course offered through Deception Control, Inc. Ft. Lauderdale.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2251 TEST QUSTN CONSTR & SEMANTICS/PERSO (3)
The construction of test questions appropriate to the personnel aspect of the polygraph is emphasized. Course offered through Deception Control, Inc., Ft. Lauderdale.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2252 TEST QUSTN CONSTR & SEMANTICS/CRIMI (3)
The construction of test questions appropriate to the criminal case aspect of the polygraph is emphasized. Course offered through Deception Control, Inc., Ft. Lauderdale.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2254 POLYGRAPH OPERATIONS PRACTICUM (3)
Types of polygraph techniques and examinations are considered with emphasis on conducting examinations in role playing situations in the laboratory. Course offered through Deception Control, Inc., Fort Lauderdale.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2362 FIRST RESPONDER (3)
This course is designed to teach the student proper first responder techniques used by law enforcement officers in emergency medical situations and also to make the student aware of important health issues, such as communicable diseases, that may impact an officer's duties. Acceptance into the A.S. Criminal Justice Academy-track degree program is a prerequisite for this course.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2820 PRIVATE SECURITY ADMINISTRATION (3)
An overview of security systems and their organizations, as found in retail, industrial and governmental agencies.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CJT2840 LEGAL ASPECTS OF PRIVATE SECURITY (3)
An overview of the legal aspects and proscriptions involved in retail, industrial, governmental agency and personnel security.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CLP2001 PSYCHOLOGY OF ADJUSTMENT (3)
A basic study of personality, psychological remediation and maintenance. Focus is given to topics related to motivation, frustration, aggression, stress, conflict, affection development and personal adjustment. Recommended for students who do not intend to take PSY2012.
include classes, polymorphism, inheritance, streams, and the C++ language begun in COP1334C. Topics will be covered. Instructors' approval or other programming languages.

**COP1000C INTRODUCTION TO COMPUTER PROGRAMMING** (3)
This course provides the beginning programming student with the techniques necessary to write well-documented, structured computer programs. The course is intended to emphasize the planning process using examples involving sequence, selection, and iteration. The course is designed to promote good programming practices for further study of other programming languages. Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

**COP1120 COBOL I** (3)
The COBOL programming language is taught in a structured format. Through lectures and laboratory practices, students develop programming ability in the COBOL language. Emphasis is placed on sequential file processing and the creation of different reports. Creation of disk files is also covered. Instructor's approval or Pre or Corequisite: CGS1000
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=24.00

**COP1170 PROGRAMMING IN BASIC** (3)
This course provides a study of programming utilizing the BASIC language. Emphasis is placed on the development of computer problem-solving skills and structured programming techniques in business, engineering, mathematics, science, and other related fields. Lectures and discussions are supplemented by assigned laboratory work in which microcomputers or mainframes are utilized. Prerequisite: MAT0024
Pre or Corequisite: CGS1000
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=24.00

**COP1334C INTRODUCTION TO C++** (3)
This course provides an introduction to computer program design and development using the C++ language. A structured, multi-phase, program development process featuring a series of steps involving problem definition, top-down design, and formal program specification is stressed. The course is intended to provide the novice programming student with the techniques needed to develop well-documented, structured computer programs. Students who do not possess computer programming experience are strongly encouraged to complete COP1000C (Introduction to Computer Programming) before attempting this course. Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

**COP1337C INTERMEDIATE C++ PROGRAMMING** (3)
This course continues the study of structured programming and the C++ language begun in COP1334C. Topics will include classes, polymorphism, inheritance, streams, templates, exception handling dynamic memory allocation, and memory management. An introduction to data abstraction and data structures is also included. Prerequisite: COP1334C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

**COP1341 UNIX** (3)
Through the use of shell scripts, text processing, electronic mail, utilities and editors, students study the UNIX operating system to fulfill user needs in the business/scientific programming environments. Prerequisite: COP1334C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=24.00

**COP2171C VISUAL BASIC PROGRAMMING** (3)
This course teaches how to create Visual Basic based programs. Students write programs that access databases, use OLE to integrate applications, and act as an OLE Server and as an add-in. This class assumes a working knowledge of Basic Programming (COP1170). Prerequisite: COP1334C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=24.00

**COP2227C SOLUTION ARCHITECTURES** (3)
This course provides students with the knowledge and skills necessary to analyze business requirements in a given scenario and then define technical solution architectures that will optimize business results by using Microsoft development tools. Prerequisite: CGS1100
Pre or Corequisite: CIS2321
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

**COP2331C OBJECT-ORIENTED DESIGN AND PROGRAMMING** (3)
This course focuses on objects as the basis for system development. Students will learn to use object-oriented analysis and design techniques to document system requirements and design object-oriented solutions. C/C++ will then be used to implement those solutions. Prerequisite: COP1337C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=50.00

**COP2700C DATABASE PROGRAMMING USING SQL** (3)
This course provides the student with a solid foundation in Relational Database Management Systems and RDBMS technology. It emphasizes an end-to-end solution, beginning with requirements and progressing through conceptual design, logical database design, physical database design, and implementation, using a RDBMS and the SQL language. It involves extensive database manipulation and querying using SQL. It also stresses transaction management concepts, data integrity constraints, and performance issues. Prerequisite: CGS1540C COP2171C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

**COP2701C ACCESS VBA PROGRAMMING** (3)
This course provides students with the comprehensive knowledge and skills necessary to implement application programming concepts and procedures, and to apply these skills to design, develop, and implement solutions based on Access for Windows. Prerequisite: CGS1540C COP2171C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00
COP2706C BUSINESS DEVELOPMENT USING VISUAL B (3)
This course will teach visual basic programmers, who currently build desktop applications and access corporate databases, the basics of how to build three-tier client/server solutions.
Prerequisite: COP2821C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

COP2707C CLIENT SERVER DEVELOPMENT USING DEL (3)
This course covers the concepts of a database engine that allows the user to create and manipulate tables for the purpose of client and server relationships. Programming and data controls are utilized.
Prerequisite: CGS1540C COP1334C COP2171C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

COP2740C INTRODUCTION TO ORACLE: SQL AND PL/ (4)
This course offers students an extensive introduction to data server technology. This class covers the concepts of relational databases and the powerful SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. In addition, students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Demonstrations and hand-on practice reinforce the fundamental concepts.
This class is designed to prepare students to successfully complete the Oracle Application Developer and Database Administrator certification exams.
Prerequisite: CIS2342 COP1334C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2741C ORACLE DBA: DATABASE ADMINISTRATION (4)
This course is designed to give the Oracle Database Administrator (DBA) a firm foundation in basic administrative tasks. Through instructor-led learning, structured hands-on practices, and challenge-level exercise labs, the DBA will gain the necessary knowledge and skills to set up, maintain, and troubleshoot an Oracle database. This course is designed to prepare students to successfully complete the Oracle Database Administrator certification exams.
Prerequisite: COP1341 COP2740C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2742C ORACLE DBA: DATABASE ADMINISTRATION (4)
In this course, students will develop skills for basic network administration, and learn several methods to backup and to recover an Oracle database. Hands-on exercises will give students experience in a realistic technical environment. The skills developed in this class will help prepare students for one of the Oracle DBA certification exams.
Prerequisite: COP2741C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2744C ORACLE DBA: PERFORMANCE TUNING (4)
This course will introduce students to the importance of good initial database design, and the methods used to tune a production Oracle database. The focus is on Database and Instance tuning, rather than specific operating system performance issues. Using available Oracle tools, students will learn how to recognize, troubleshoot, and resolve common performance related problems in administering an Oracle database. The skills developed in this class will help prepare students for one of the Oracle DBA certification exams.
Prerequisite: COP2742C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2745C ORACLE DEVELOPER: DEVELOP PL/SQL PR (4)
This course enables students to learn how to write PL/SQL procedures, functions and packages. Working in both the Procedure Builder and the SQL*Plus environments, students will learn how to create and manage PL/SQL program units and database triggers. Students will also learn how to use some of the Oracle-supplied packages. This course is designed to prepare students to successfully complete one of the Oracle Application Developer certification exams.
Prerequisite: COP2740C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2746C ORACLE DEVELOPER: BUILD INTERNET AP (4)
In this course students will build and test inter-active internet applications. Working in a graphical user interface (GUI) environment, students will learn how to customize forms with user input items such as check boxes, list items, and radio groups. They will also learn how to modify data access by creating event-related triggers. This class is designed to prepare students for one of the Oracle Application Developer certification exams.
Prerequisite: COP2745C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

COP2800C PROGRAMMING IN JAVA (3)
This course introduces students to the JAVA Programming Language. Projects will focus on object-oriented programming techniques to create JAVA applications for performing Internet transactions.
Prerequisite: COP1337C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

COP2801C JAVASCRIPTING (3)
This course will teach students to write JavaScript that can be executed on any computer running compatible software. These programs will be created using this object-based scripting language and designed to interact over the Internet or any other similar network with an appropriate Web Browser. Students will learn JavaScript structure and syntax, how to interact with environment variables, use event handlers, perform form validation, create rollover effects and receive an overview of working with cookies. Students will conceptualize and develop interactive web sites using the full features of JavaScript.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

COP2805C SUN: ADVANCED JAVA PROGRAMMING (3)
This course teaches students advanced Java programming, object-oriented programming with Java, graphical interfaces (GUIs) creation, exceptions, file input/output (I/O), threads, and networking. The skills developed in this class will help prepare students for the Sun Java Programmer certification exam and the Sun Java Developer certification.
Prerequisite: COP1341 COP2331C COP2800C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=125.00

COP2821C VISUAL BASIC DEVELOPMENT (3)
This course focuses on how to create an active X control, how to create a component object model (COM), how to
incorporate active X and COM components within a visual basic program, how to write visual programs that access a database, and how to incorporate Internet technologies into a visual application.
Prerequisite: COP2171C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=50.00

CPO2002 INTRODUCTION TO COMPARATIVE GOVERNMENT (3)
This course is a survey of political systems in the developed and the underdeveloped world. Democratic, non-Democratic, unitary and Federal systems will be analyzed and contrasted. Also the European community will be examined as an example of multinational cooperation.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW1001 CREATIVE WRITING I (3)
Student writing as the basis for critical discussion with emphasis on fundamental aspects of poetry, fiction, and/or drama.
Prerequisite: ENC0021
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW1000 FICTION WRITING (3)
Student writing as the basis for critical discussion with emphasis on analysis of the elements of fiction. Instructor's Approval or
Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW1200 MAGAZINE WRITING (3)
Student writing as the basis for critical discussions with emphasis on analysis of the elements or article writing. Instructor's Approval or
Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW1300 POETRY WRITING (3)
Student writing as the basis for critical discussion with emphasis on analysis for the elements of poetry. Instructor's approval or
Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW2002 CREATIVE WRITING WORKSHOP II (3)
A continuing development of creative writing ability. Prerequisite: Instrucor approval or
Prerequisite: CRW1001
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW2003 ADVANCED CREATIVE WRITING WORKSHOP (3)
A continuing development of creative writing ability. Students may work on independent writing projects. Directed independent study. Instructor's Approval or
Prerequisite: CRW2002
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CRW2005 ADVANCED CREATIVE WRITING WORKSHOP (1)
A continuing development of creative writing ability. Students may work on independent writing projects. Directed independent study. Instructor's Approval or
Prerequisite: CRW2002
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0000 CLAST
conflicts and communicating with greater impact.
Prerequisite: ENC1101 MAT1033
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0001 CLAST RETAKE MATH
conflicts and communicating with greater impact.
Prerequisite: CST0000 MAC1105
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0002 CLAST RETAKE ESSAY
conflicts and communicating with greater impact.
Prerequisite: CST0000 ENC1102
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0003 CLAST RETAKE ENGLISH
conflicts and communicating with greater impact.
Prerequisite: CST0000 ENC1102
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0004 CLAST RETAKE READING
conflicts and communicating with greater impact.
Prerequisite: CST0000
Corequisite: REA0991
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CST0010 CLAST MATH ONLY
conflicts and communicating with greater impact.
Prerequisite: MAC1105
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CTS111C LINUX +
This course is designed to teach students the skills they need to effectively administer Linux workstations and servers. Students will plan, install, maintain, and troubleshoot Linux operating system services. The skills developed by students completing this course will help prepare them for the CompTIA Linux+ certification exam.
Prerequisite: CDA1202C CDA1403C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=125.00

CTS112C SUN: SOLARIS SYSTEM ADMINISTRATION (4)
This course provides students with the necessary knowledge and skills to perform essential system administration tasks in the current Solaris OE, such as installing software, managing file systems, performing system boot procedures, performing user and security administration, managing network printers and system processes, and performing system backups and restores. The skills developed in this course will help prepare students for the Sun Certified System Administrator for the Solaris Operating Environment, part I exam.
Prerequisite: COP1341
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=125.00
This course provides students with the necessary knowledge and skills to perform network basics, manage virtual file systems and core dumps, manage storage volumes, control access and configure system messaging, set up naming services, and perform installation procedures. The skills developed in this course will help prepare students for the Sun Certified System Administrator for the Solaris Operating Environment, part II exam.
Prerequisite: CTS1112C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=125.00

CTS1240C MICROSOFT SPECIALIST: ADVANCED WOR
This course will provide specialized training on advanced word processing concepts and techniques. The major emphasis of this course will be the use of styles, workgroup editing, graphics, advanced table features, and macros. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Word certification exam.
Prerequisite: CGS1060C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=50.00

CTS1280C MICROSOFT SPECIALIST: ADVANCED EXC
This course will teach students advanced skills and design concepts necessary for employing Microsoft Excel to provide solutions to complex business problems. This course covers advanced topics in spreadsheet and workbook design, complex formulas, functions, database management, and macro programming. The course includes hands-on experiences with exercises and projects to provide students with a thorough working knowledge of Microsoft Excel. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Excel certification exam.
Prerequisite: CGS1060C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=50.00

CTS1301C LINUX NETWORKING
This course covers common networking services, while providing an in-depth understanding of Linux and GNU network-related packages. It covers common services such as Apache, ssh, telnet, ftp, and sendmail; and provides a detailed walk-through of network configuration using console tools such as ifconfig, inssd, and route, as well as common GUI tools. This course also reviews network architectures and topologies, including the standard protocols. The skills developed by students completing this course (in combination with CEN1881C, CEN1882C, and CEN1884C) will help prepare them for the LPI Level 1 certification exams.
Prerequisite: CTS1321C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS1311C LINUX SECURITY
This course covers the fundamentals of security. It examines common security problems, and provides a detailed walkthrough of several security-related tools. The course also discusses the proper use of administrative privileges and privacy. The skills developed by students completing this course (in combination with CEN1881C, CEN1882C, and CEN1883C) will help prepare them for the LPI Level 1 certification exams
Prerequisite: CTS1301C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS1321C RED HAT LINUX SYSTEM ADMIN II
Students will learn to be effective administrators of Linux systems, mastering tasks such as hardware and device configuration, file system management, user administration, network configurations, kernel services, attaching new linux systems to a corporate network, configuring the new systems for end-users, and troubleshooting. This is the first course in the series of two for the Red Hat Linux Core System Administration curriculum.
Prerequisite: CTS1113C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS1344C SUN: ADVANCED SHELL SCRIPTING
This course provides students with the skills to read, write and debug UNIX shell scripts. The course begins by describing simple scripts to automate frequently executed commands and continues by describing conditional logic, user interaction, loops, menus, traps, and functions. This course is intended for system administrators who have mastered the basic Solaris tm Operating Environment (OE) and who would like to read and understand the various boot scripts and write their own scripts to automate their day-to-day tasks. This course explores, in detail, the Bourne and Korn shell scripting languages.
Prerequisite: CTS1112C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=125.00

CTS1433C QUERYING MICROSOFT SQL SERVER
This course teaches students advanced skills and design concepts for employing Microsoft Access to quickly retrieve and manipulate enterprise data. The course includes hands-on experiences with exercises and projects to provide students with a thorough working knowledge of Microsoft Access programming. This course is valuable for anyone wanting to design and implement powerful database applications, including software developers, analysts, webmasters, programmers, and power users. The skills developed by students completing this course will help prepare them for the Microsoft Office Powerpoint certification exam.
Prerequisite: CGS1060C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=50.00

CTS1433C QUERYING MICROSOFT SQL SERVER WITH
The goal of this course is to provide students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server.
Prerequisite: CGS1540C CIS2342
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS1520C ADOBE PHOTOSHOP
This Adobe course teaches students how to fully utilize the latest Adobe Photoshop image editing tool. Students learn to paint and retouch images, use layers, support video, work with vector tools, manage digital assets, work with RAW
CTS1526C MACROMEDIA DREAMWEAVER (3)
This course teaches students how to use the Macromedia Dreamweaver Development Environment. Students learn Project requirements, website usability, using rich media content, content control tools, website building techniques, collaboration and Site testing, and how to manage and maintain websites.
Prerequisite: CTS1860C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CTS1530C CASCADING STYLE SHEETS (3)
This course will help students to understand and apply Cascading Style Sheets to separate the content from the style of the web pages. Topics covered will include text styling, working with images, navigating, replacing tables with CSS, form interfaces, positioning, layout, and future techniques.
Prerequisite: CTS1526C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CTS1570C MICROSOFT SPECIALIST: ADVANCED POW (3)
This course is designed to develop the advanced Microsoft PowerPoint skills to generate a variety of business presentations. Students will prepare complete presentations for screen, printer, slide presentations, and other multimedia environments. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist PowerPoint certification exam.
Prerequisite: CGS1060C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=50.00

CTS1730C CIW: JAVASCRIPT FUNDAMENTALS (2)
This CIW certification course teaches developers how to use the features of the JavaScript language and design client-side, platform-independent solutions. Students learn how to write JavaScript programs, script for the JavaScript object model, control program flow, validate forms, animate images, target frames, and create cookies. Students will also understand and use the most popular applications of JavaScript. This course, in combination with COP1806C, prepares students for the CIW Web Languages certification exams.
Prerequisite: CTS1860C
Lec Hrs=24 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CTS1731C CIW: PERL FUNDAMENTALS (3)
This CIW certification course teaches students how to fully utilize the Perl programming language. Students learn the Perl syntax, the basics of using regular expression, how to use Perl data types, and how to access and manipulate files. Students are also introduced to database connectivity and debugging techniques. This course, in combination with COP1802C, prepares student for the CIW Web Languages certification exams.
Prerequisite: CTS1860C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CTS1760C MICROSOFT SPECIALIST: ADVANCED OUT (1)
This course will develop advanced skills in a powerful desktop information management (DIM) program that assists in organizing work schedules, tracking files, and communicating with others. The student will use his/her high level skills on all the Microsoft Office software suite (Word, Excel, Access, PowerPoint) to create integrated planners, various integrated application files, and multi-user information sharing through this DIM. The skills developed by students completing this course will help prepare them for the Microsoft Office Specialist Outlook certification exam.
Prerequisite: CTS1860C
Lec Hrs=12 Lab Hrs=4 Oth Hrs=0 Fees=40.00

CTS1826C CIW: ADVANCED INTERNET SYSTEM MANA (3)
This CIW certification course teaches students how to implement mission-critical services on the Windows and Linux platforms. Students install and configure Web, Newsgroup, e-mail and proxy servers; receive in-depth understanding of how to connect e-commerce databases to Web servers; and learn how to enable CGI on Windows and Linux. Students also learn about back-up and load balancing issues, and receive foundational knowledge concerning Internet security. This course is designed for personnel responsible for implementing real-world solutions for company intranets or ISPs that provide Internet Web services. This course prepares students for the CIW Server Administrator certification exam.
Prerequisite: CEN1301C CTS1111C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=110.00

CTS1860C I-NET + (4)
This course is a vendor-neutral, entry-level course that provides students with baseline technical knowledge and skills of Internet, intranet, and extranet technologies, independent of specific Internet-related career roles. Students will gain a basic knowledge and/or competency of Internet skills and tasks in 5 core content areas: Internet Basics and Clients, Development, Networking, Internet Security, and Business Concepts. The skills developed by students completing this course will help prepare them for the CompTIA I-Net+ certification exam.
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=90.00

CTS2312C SECURITY+ (4)
This course provides the student with an understanding of the computer, network, infrastructure, and information security issues faced by industry worldwide. Expertise necessary to combat and protect intellectual property from theft and destruction are also developed. The skills developed by students who complete this course will prepare them for the Security+ certification exam.
Prerequisite: CET2489C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=150.00

CTS2326C IMPLEMENT & ADMIN SEC.A MICROSOFT W (4)
This course is part of the Security Portfolio and will act as the primary entry point for IT Professionals at the implementation level and is for system administrators or system engineers who have the foundation implementation skills and knowledge for the deployment of secure Microsoft Windows Server based solutions. This course is not intended to provide design skills, but will cover planning skills at a level sufficient to enable decision making for the implementation process.
Prerequisite: CEN1321C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00
CTS2434C PROGRAMMING A MICROSOFT SQL SERVER (4)
This course provides students with the technical skills required to program a database solution using Microsoft SQL Server. The skills developed by students completing this course will help prepare them for the Microsoft Programming a SQL Server Database certification exam.
Prerequisite: CTS1433C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS2523C MACROMEDIA FLASH (3)
This course teaches students how to produce vector-based animated and interactive Web sites using Macromedia's Flash toolset. The course will cover everything from the basic interface to advanced button design and form interaction. Students will learn about the multimedia features in Flash, and how to learn how to take advantage of them.
Prerequisite: CTS1526C
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=100.00

CTS2750C SUPPORTING MICROSOFT OFFICE (2)
This course is designed to teach students the skills they need to effectively provide technical support for Microsoft Office end users. The course covers topics such as macro viruses, file security, printing, and application configuration. Students will learn installation procedures and troubleshooting techniques, and strengthen their problem-solving skills.
Prerequisite: CTS1240C CTS1280C CTS1431C CTS1570C
Lec Hrs=24 Lab Hrs=8 Oth Hrs=0 Fees=40.00

CTS2811C ADMINISTERING A MICROSOFT SQL SERVER (4)
This course provides students with the knowledge and skills necessary to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. The skills developed by students completing this course will help prepare them for the Microsoft Administering a SQL Server certification exam.
Prerequisite: CEN1301C CTS1433C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CTS2814C IMPLEMENTING MICROSOFT EXCHANGE SER (4)
This course will give students the knowledge and skills necessary to install, configure, and administer Microsoft Exchange. The skills developed by students completing this course will help prepare them for the Microsoft Exchange certification exam.
Prerequisite: CEN1321C
Lec Hrs=56 Lab Hrs=8 Oth Hrs=0 Fees=150.00

CVT1200 CARDIOPULMONARY PHARMACOLOGY (3)
This course provides an overview of drugs related to the cardiopulmonary system with special emphasis on the drugs used to treat cardiac and pulmonary patients.
Prerequisite: RET1485
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CVT1501 BASIC ELECTROCARDIOGRAPHY (2)
This course will discuss a brief history of electrocardiography, the role of the technician, the care and use of the electrocardiographic (EKG) machine, positioning the patient, electrical hazards, normal EKG pattern, identifying and reporting abnormal EKG patterns and mounting the EKG.
Prerequisite: CSTE0062 CSTE0216
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=48.60

CVT2240 INVASIVE CARDIOLOGY I (3)
Introduces the student to diagnostic procedures performed in the cardiac catheterization Laboratory. Emphasis is made on left and right heart catheterization techniques and hemodynamics, operation of x-ray equipment and film processing, sterile techniques and application of resulting data for patient diagnosis.
Prerequisite: CVT2620 CVT2620L
Pre or Corequisite: CVT1200 CVT2420L CVT2842L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CVT2240L INVASIVE CARDIOLOGY I LAB (2)
This laboratory course provides an orientation to the cardiac catheterization laboratory with practical application, including x-ray equipment and film processing, sterile technique, physiologic monitoring, intra-aortic balloon pump and emergency protocols.
Prerequisite: CVT2620 CVT2620L
Pre or Corequisite: CVT1200 CVT2420 CVT2842L
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=35.00

CVT2421 INVASIVE CARDIOLOGY II (3)
This course introduces the student to the intervention procedures performed in the cardiac catheterization laboratory, including, percutaneous transluminal coronary angioplasties, special valvuloplasties, peripheral angioplasties, post procedural care and electrophysiology studies.
Prerequisite: CVT2420 CVT2420L CVT2842L
Pre or Corequisite: CVT2421L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CVT2421L INVASIVE CARDIOLOGY II LAB (2)
This laboratory course introduces the student to the intervention procedures performed in the cardiac catheterization laboratory, including, percutaneous transluminal coronary angioplasties, special valvuloplasties, peripheral angioplasties, post procedural care and electrophysiology studies.
Prerequisite: CVT2420 CVT2420L
Pre or Corequisite: CVT2421
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=35.00

CVT2620 NON INVASIVE CARDIOLOGY (3)
This course provides an introduction to cardiovascular testing using vector cardioiology, electrocardiology, graded exercise testing, nuclear cardiiology and basic echocardiography. Performance competency and patient safety will be emphasized. Prerequisite: Admission to the Cardiovascular Technology Program.
Prerequisite: BSC1085 ENC1101 MAT1033
Pre or Corequisite: CVT2620L RET1485
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

CVT2620L NON INVASIVE CARDIOLOGY LAB (1)
This laboratory course provides the student an opportunity to develop skills in non-invasive cardiovascular testing using EKG, Holter monitors, stress tests and echocardiography. Performance competency and patient safety will be emphasized.
Prerequisites: Admission to the Cardiovascular Technology Program.
Prerequisite: BSC1085 CHM1032 MAT1033
Pre or Corequisite: CVT2620 RET1485
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

CVT2840L CARDIOPULMONARY CLINIC I (4)
This course provides an orientation to clinic experience with diagnostic procedures in the cardiac catheterization laboratories. This includes observing and participating in procedures and gaining practical experience. Coeducational. Participation in semester dance concert required.

**Prerequisite:** Instructor permission or
**Prerequisite:** DAA1204

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00**

**DAA1504 JAZZ DANCE I**

This is a course in Jazz technique. Included are warm-up, stretch and strengthening, centre exercises, and basic jazz combinations. Coeducational.

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00**

**DAA1505 JAZZ DANCE II**

A course in Jazz technique with emphasis on various jazz styles and performance. Includes warm-up, stretch and strengthening, centre exercises, and intermediate level jazz dance combinations. Coeducational. Permission of Instructor.

**Prerequisite:** DAA1504

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=2.00**

**DAA1520 BASIC TAP**

Course will include beginning level tap steps including basic barre, centre floor exercises, step combinations and choreography. Coeducational. Students must furnish their own tap shoes.

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00**

**DAA1680 DANCE REPERTORY (1)**

Participation as a dancer/performer in dance works of ballet, jazz, and modern vocabularies. Works include those of dance faculty, guest artists, as well as student choreography. Coeducational. May be repeated for credit.

**Corequisite:** Student must be enrolled in at least one BCC dance technique class.

**Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00**

**DAA2106 MODERN DANCE III**

A continuation of DAA1105 with an emphasis on advanced movement phrases and combinations necessary to perform modern dance repertory. Further emphasis will be placed on the development of the students' style and performance quality. Coeducational. May be repeated for credit.

**Prerequisite:** Permission of instructor or

**Prerequisite:** DAA1105

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00**

**DAA2206 BALLET III**

Continuation of DAA1205. Emphasis on developing strength and coordination in more complex phrasing and movement. This course will explore and develop an understanding of the vocabulary, technique, and theoretical concepts of ballet on an intermediate level. Students are required to audition for BCC student dance ensemble.

Coeducational. May be repeated for credit.

**Permission of Instructor or**

**Prerequisite:** DAA1205

**Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00**

**DAN2600 MUSIC FOR DANCE**

Designed to provide both the dancer and choreographer with the musical knowledge and tools to enhance how they use music in their discipline and how they communicate their musical needs to musicians.

**Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00**
DEA0000 INTRODUCTION TO DENTISTRY (1)
An overview of dentistry and the dental assisting profession including its history, ethical and legal aspects, duties and responsibilities of the dental health team, professional organizations, and proper conduct and grooming of the dental assistant. 2 hrs. Lec. Term I. Instructor approval or Corequisite: DEA0025
Lec Hrs=30 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEA0025 PRE CLINICAL (2)
Designed to orient the student to the dental office and the use and sterilization of all instruments and equipment used in the practice of dentistry. Special fee charged. 4 hrs. Lec. Term I Instructor's Approval or Pre or Corequisite: DEA0025L DES0100 DES0840
Lec Hrs=60 Lab Hrs=0 Oth Hrs=120 Fees=70.00

DEA0025L PRECLINICAL LABORATORY (4)
Laboratory/clinical portion of DEA0025. Provides hands-on instruction of use and sterilization of all instruments and equipment used in the practice of dentistry. Special fee charged. 8 hrs. Lab./Clinical. Term I. Instructor approval or Pre or Corequisite: DEA0025 DES0100 DES0840
Lec Hrs=0 Lab Hrs=0 Oth Hrs=120 Fees=70.00

DEA0084 PREVENTIVE DENTISTRY (1)
Preventive dentistry
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEA0130 ALLIED DENTAL THEORY (1)
Designed to acquaint the student with basic body structures, functions and diseases which affect dental treatment. Basic concepts of microbiology and their relevance to sterilization. General aspects of oral pathology, including common pathological conditions of the mouth, teeth, and their supporting structures will be covered. Additional consideration will be given to the pharmacological properties, therapeutic applications and any toxicities or contraindications of drugs and medicaments commonly used in dentistry. Essential material on the symptoms, treatment, and equipment required to render adequate care for the common office emergencies will be included. 4 hrs Lec. Term II. Instructor's approval or Pre or Corequisite: DEA0025 DES0200
Lec Hrs=30 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH1003 PRECLINICAL DENTAL HYGIENE I (2)
A course designed to provide knowledge in the application of dental hygiene procedures with a detailed study of instrumentation. The course includes data collection, mastery of beginning techniques in dental patient care, and emergency procedures.
Pre or Corequisite: DEH1003L DEH2400
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH1003L PRECLINICAL DENTAL HYGIENE I LAB (3)
The laboratory portion of this course is designed to provide hands on instruction in the application of dental hygiene procedures with a detailed study of instrumentation. The course includes data collection, mastery of beginning techniques in dental patient care, and emergency procedures.
Pre or Corequisite: DEH1003 DEH2400
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=90.05

DEH1130 ORAL HISTOLOGY AND EMBRYOLOGY (2)
This course studies the embryonic development and the histology of the components of the oral cavity. This includes a comprehensive study of the cells and tissues of the oral cavity.
Prerequisite: DEH1602
Pre or Corequisite: DEH1802 DEH1802L DES1051
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH1602 PERIODONTOLOGY (3)
This course presents the etiology and classification of periodontal disease and principles of periodontia pertinent to dental hygiene practice. Principles of occlusion and periodontal surgery techniques are discussed through the use of case presentations.
Prerequisite: DEH1800 DEH1800L DES2050
Pre or Corequisite: DEH1802 DEH1802L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH1602L PERIODONTOLOGY LAB (1)
DEH1602L encompasses a continuation of learning current periodontal trends in the dental office. This laboratory provides the student with hands on activities to insure effective patient treatment including phase microscopy, ultrasonic instrumentation, desensitizing agents, Soft Tissue Management, chemotherapeutic agents, advanced periodontal assessment, therapy and treatment procedures.
Prerequisite: DEH1800 DES2050
Pre or Corequisite: DEH1130 DEH1602 DEH1800L DEH1802 DEH1802L
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=40.05

DEH1800 DENTAL HYGIENE I (2)
This course provides instruction on removal of hard and soft deposits, treatment planning, preventive procedures, care of instruments, pre and post operative procedures, and dental hygiene diagnosis.
Prerequisite: DEH1003 DEH1003L DEH2400
Pre or Corequisite: DEH1800L DES2050
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH1800L DENTAL HYGIENE I CLINIC (2)
This course will provide clinical experience in comprehensive patient care. Emphasis is placed on treatment planning and dental hygiene assessment techniques.
Prerequisite: DEH1003 DEH1003L DEH2400
Pre or Corequisite: DEH1800 DES2050
DEH1802 DENTAL HYGIENE II (4)
A course designed to provide further knowledge in the application of dental hygiene procedures. This includes information on treatment planning, periodontal charting, ultrasonic scaling and comprehensive dental hygiene care. Prerequisite: DEH1800 DEH1800L DES2050
Pre or Corequisite: DEH1802L
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=90.05

DEH1802L DENTAL HYGIENE II CLINIC (3)
The laboratory portion of this course requires hands on experience with specified numbers of patients and procedures. An emphasis on the development of basic patient care and education techniques is included.
Prerequisite: DEH1800 DEH1800L DES2050
Pre or Corequisite: DEH1802
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=90.05

DEH2400 GENERAL AND ORAL PATHOLOGY (2)
This course provides principles of general and oral and pathology as it relates to diseases of the oral cavity. There will be emphasis on the importance of the dental hygienist's recognition of normal and abnormal conditions.
Pre or Corequisite: DEH1003 DEH1003L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH2701 COMMUNITY DENTAL HEALTH (2)
This course will teach the student the concepts of community dental health. Topics covered include the measurement of dental disease, prevention programs, community outreach programs, and simple statistical analysis.
Prerequisite: DEH1130 DES1051
Pre or Corequisite: DEH2701L DEH2804L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH2701L COMMUNITY DENTAL HEALTH LAB (1)
This course is the follow through for DEH2701. The student will apply community health principles by designing and presenting dental health education principles to various community audiences.
Prerequisite: DEH1130 DES1051
Pre or Corequisite: DEH2701 DEH2804L DEH2806 DEH2806L
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=50.00

DEH2804L DENTAL HYGIENE III CLINIC (4)
The laboratory portion of this course provides advanced application of the principles of preventive dental hygiene and oral prophylaxis techniques on patients in the clinic under supervision.
Prerequisite: DEH2806 DEH2806L
Pre or Corequisite: DEH2804
Lec Hrs=0 Lab Hrs=0 Oth Hrs=192 Fees=90.05

DEH2806 DENTAL HYGIENE IV (2)
This course provides continuation of theoretical material related to clinic dental hygiene practice. It includes discussion on case information, dental hygiene treatment of advanced periodontal patients, patients with special needs and dental hygiene practice rules and regulations for the state of Florida.
Prerequisite: DEH1802 DEH1802L
Pre or Corequisite: DEH2806L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEH2806L DENTAL HYGIENE IV CLINIC (4)
This course provides continuation of clinical experience with patients, developing previously learned skills and knowledge. The emphasis is placed on advanced instrumentation and patient management skills necessary to treat the more advanced patients.
Prerequisite: DEH2701 DEH2804L
Pre or Corequisite: DEH2701L DEH2806
Lec Hrs=0 Lab Hrs=0 Oth Hrs=192 Fees=90.05

DEH2944L ADVANCED DENTAL HYGIENE CLINIC (1)
This course is designed for students who have successfully graduated from Broward Community College's Dental Hygiene Program to maintain and/ or update clinical skills prior to taking the Florida Stateboard Clinical Examination.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=76 Fees=80.91

DEP2002 DEVELOPMENTAL PSY I: CHILD PSYCHOLO (3)
Study of the concepts and principles of growth and development in infancy and childhood.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEP2004 DEVELOPMENTAL PSYCHOLOGY (3)
This is a general life span developmental psychology offering that considers human growth from conception to death. It is designed to give a general overview of the developmental processes.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEP2302 DEVELOPMENTAL PSYCH II: ADOLESCENT (3)
The personal, social and developmental aspects of adolescence and early adulthood are reviewed in this course. A focus is placed upon the research dealing with the characteristic problems and adjustments of this life stage.
Prerequisite: PSY2012
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEP2481 THE PSYCHOLOGY OF DYING (3)
An examination of the historical and present perspectives of death and dying in an intensive assessment of the psychological and cultural factors that serve as the etiological basis of this phenomena. Topics include grief, euthanasia, eschatology, the dying person, the Hospice systems bereavement, and widowhood.
Prerequisite: PSY2012
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.

DEH2012 DEVELOPMENTAL PSYCH II: ADOLESCENT (3)
The personal, social and developmental aspects of adolescence and early adulthood are reviewed in this course. A focus is placed upon the research dealing with the characteristic problems and adjustments of this life stage.
Prerequisite: PSY2012
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.

DES0021 DENTAL ANATOMY AND PHYSIOLOGY (1)
The study of head and neck anatomy with emphasis placed on the structure, morphology, and function of the primary and permanent human dentitions. 3 hrs. lec. Term I.
Instructor's approval.
COREQUISITE: DES0801

II. Instructor's approval or of chairside assisting. Special fee charged. 12 hrs. Lab. Term receive closely supervised individual instruction in all phases Practicum phase provides the opportunity for each student to

Pre or Corequisite: DES0801L

Lecture series acquaints the student with the necessary background material and assisting procedures involved in each dental specialty. Special fee charged. 1 hr Lec Term II Instructor's approval or Prerequisite: DEA0025 DEA0025L

DESI000L CLINICAL PROCEDURES I LAB (1) Practicum phase provides the opportunity for each student to receive closely supervised individual instruction in all phases of chairside assisting. Special fee charged. 12 hrs. Lab. Term II. Instructor's approval or Prerequisite: DEA0025 DEA0025L Corequisite: DES08081

DESI001L CLINICAL PROCEDURES II LAB (5) Practicum phase is a continuation of DES0801 with the addition of a supervised externship program utilizing dental offices and public health facilities in the community. Lecture demonstration series focuses on selected dental topics pertaining to effective dental assisting and the additional duties permitted by rules and regulations of the Florida State Board of Dentistry. 30 hrs. minimum per week. Term III, Session II. Prerequisite: DEA0025 DEA0025L DES0801 DES08081 Corequisite: DES08082

Lec Hrs=30 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DESI082L CLINICAL PROCEDURES II LABORATORY (4) Practicum phase is a continuation of DES0801L with the addition of a supervised externship utilizing dental offices and public health facilities in the community. Special fee charged. Field experience. 30 hrs. minimum per week. Term III, Session II. Prerequisite: DEA0025 DEA0025L DES0801 DES08081 Corequisite: DES08082

Lec Hrs=0 Lab Hrs=0 Oth Hrs=135 Fees=23.95

DESI0830 EXPANDED FUNCTIONS I (2) The course is designed to provide the basic knowledge and clinical practice necessary for the dental assisting student to perform the expanded functions permitted by the rules and regulations of the Florida State Board of Dentistry. 3 hrs. lec. Instructor's approval or Pre or Corequisite: DEA0025 DEA0025L

Lec Hrs=60 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DESI0831 EXPANDED FUNCTIONS II (1) The course is designed to be a continuation of dental auxiliary expanded functions I. It will provide the basic knowledge necessary to perform the more complex expanded functions permitted by the rules and regulations of the Florida State Board of Dentistry. 1 hr. lec. Term II. Instructor approval or Prerequisite: DEA0025 DEA0025L DES08083

Pre or Corequisite: DES0801 DES08081 DES0831L Lec Hrs=30 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DESI0831L EXPANDED FUNCTION II LAB (2) This course is designed to be a continuation of dental auxiliary expanded functions I. It will provide the clinical practice necessary to perform the more complex expanded functions permitted by the rules and regulations of Florida State Board of Dentistry. Special fee charged. 3 hrs. lab. Term II. Instructor's approval or Prerequisite: DEA0025 DEA0025L DES08083

Pre or Corequisite: DES0801 DES08081 DES0831L Lec Hrs=0 Lab Hrs=60 Oth Hrs=0 Fees=70.00

DESI0840 PREVENTIVE DENTISTRY (1) Emphasis is placed on the development of a plaque control program to meet individual patient needs. Materials on methods of toothbrushing, supplementary aids for oral physiotherapy and the use of fluorides, and nutritional counseling in preventive dentistry will be presented. Instructor approval or Pre or Corequisite: DEA0025

Lec Hrs=40 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DESI0851 PAIN CONTROL AND DENTAL ANESTHESIA (1)
This course provides a study of agents used in dentistry for local anesthesia and pain control. Prerequisite: DEH1003 DEH1003L DEH1800 DEH1800L DEH2400 DEH2400L Pre or Corequisite: DEH1130 DEH1802 DEH1802L Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DEP0205C DENTAL PHARMACOLOGY (2) This course provides an understanding of the drugs commonly encountered in the dental office. The student will gain knowledge in the origin, physical and chemical properties, modes of administration and effects upon the body system. Prerequisite: DEH1003 DEH1003L DEH2400 Pre or Corequisite: DEH1800 DEH1800L Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DIM1001 DIESEL ENGINE FUNDAMENTALS (3) A course designed to teach the principles, operations, and maintenance of automotive and light truck diesel engines, electrical systems, emission control systems, lubrication and exhaust systems. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

DIM1010 ADVANCED DIESEL ENGINE AND REPAIR (6) A course designed to teach the principles, operations, maintenance diagnosis, and repair of medium and heavy vehicle diesel engines. Topics include diagnosis, and repair of cylinder head and valve train, engine block, lubrication, system, cooling system, air induction and exhaust systems, fuel system and engine brakes. Prerequisite: DIM1001 Lec Hrs=48 Lab Hrs=96 Oth Hrs=0 Fees=0.00

DSC1011 TERRORISM AND DOMESTIC SECURITY (3) A study of domestic and international terrorism as it relates to domestic security. Topics include terrorist organizations and motivations, investigating terrorism threats, conducting vulnerability assessments of potential terrorist targets, and the role of government agencies in response to a terrorist incident and recovery afterwards. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EAP0100C LISTENING/SPEAKING I (3) A high beginning level listening and speaking course. Students continue to develop the ability to understand frequently used words in oral contexts and understand and respond appropriately to simple phrases and questions. PREREQUISITE: Through placement testing and/or department recommendation. Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0185C GRAMMAR/Writing I (6) A low-beginning level combined skills course for speakers of other languages designed principally to guide the students to the development of basic grammar and basic writing structures as applied to academic English. Students will develop writing skills in the context of guided discourse on personal topics with an emphasis on logical thought and mechanics. The requirement to move to the next level (EAP0285C) is a C or higher. With a D or F, a student must repeat EAP0185C. PREREQUISITE: Through placement testing and/or department recommendation. Lec Hrs=96 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0200C LISTENING/SPEAKING II (3) A high beginning level listening and speaking course. Students continue to develop the ability to understand frequently used words in oral contexts and understand and appropriately respond to simple phrases and questions. PREREQUISITE: Through placement and/or department recommendation. Prerequisite: EAP0100C Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0220C READING I (3) This is a level 100 beginning ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on a basic level. Placement in EAP0220C is determined by assessment tests and/or referral. Students must earn a C or higher to proceed to EAP0220C. Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0285C GRAMMAR/Writing II (6) A high-beginning level combined skills course for speakers of other languages designed principally to guide the students to the development of basic grammar and writing structures as applied to academic English. Students will develop writing skills in the context of guided discourse on personal topics...
EAP0385C GRAMMAR/Writing III (6)
An intermediate level combined skills course for speakers of other languages designed principally to guide the students to the mastery of grammar and writing structure applied to academic English. The requirement to move to the next level (EAP0485C) is a C or higher. With a D or an F, a student must repeat EAP0385C.
Prerequisite: EAP0285C
Lec Hrs=96 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0400C COMMUNICATION SKILLS IV (3)
Designed to guide the students toward applying pronunciation, phrasing, and intonation of oral American English to communication situations in commercial, academic, and social settings. Involves interview presentation and emphasis on developing listening skills. With a D or an F, a student must repeat EAP0400C. Special fee charged.
Prerequisite: EAP0300C
Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0420C READING IV (3)
This is a level 400 high intermediate ESL reading course designed for students in English for Academic Purposes (EAP) programs. It emphasizes vocabulary and comprehension on an intermediate level. Placement in EAP0420C is determined by successful completion of EAP0320C (a grade of C or higher) or assessment tests and/or referral. Students must earn a C or higher to pass the course end take the reading section of the CPT for further reading placement.
Prerequisite: EAP0320C
Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP0485C GRAMMAR/Writing IV (6)
This course is a continuation of EAP0385C. An intermediate course for speakers of other languages designed principally to guide the students to the mastery of complex grammar and sentence structures, and basic paragraph writing. The requirement to move to the next level (EAP1540C) is a C or higher. With a D or an F, a student must repeat EAP0485C.
Prerequisite: EAP0385C
Lec Hrs=96 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP1540C ADVANCED COMPOSITION I (3)
A composition course in English for speakers of other languages. Designed principally to guide the students to the mastery of paragraph structure using various paragraph modes and the multi-paragraph essay. The grammar focuses on elements which closely tie in with composition, e.g. connectors and sentence combining. With a D or an F, a student must repeat EAP1540C. Special fee charged.
Prerequisite: EAP0400C EAP0420C EAP0485C
Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

EAP1640C ADVANCED COMPOSITION II (3)
This is an advanced composition course in English for speakers of other languages. Students are given intensive practice in the writing of the multiparagraph essay for the various modes. Emphasis is given to clear and logical development of ideas. Students apply advanced grammar skills and precise vocabulary usage to essay writing. With a D or an F, a student must repeat EAP1640C. Special fee charged.
Prerequisite: EAP1540C
Lec Hrs=48 Lab Hrs=13 Oth Hrs=0 Fees=20.00

ECO2013 PRINCIPLES OF MACROECONOMICS (3)
An introductory course in macroeconomic principles covering basic economic problems and concepts. Topics discussed and analyzed include the role of government in various economic systems, aggregate measures of economic performance, aspects of economic instability, macroequilibrium, fiscal and monetary policies, and the impact of the public debt and international trade. This is a writing credit course. Prerequisite: Completion of prep reading obligation.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ECO2023 PRINCIPLES OF MICROECONOMICS (3)
An introductory course stressing microeconomic theories. Topics studied include the theory and application of supply and demand elasticity; theory of consumer demand, utility; production and cost theory including law of diminishing returns; the firm’s profit-maximizing behaviors under market models ranging from pure competition to pure monopoly; the theory of income distribution; comparative advantage, trade policies, exchange rates, balance of payments, and other international issues. This is a writing credit course. Prerequisite: Completion of prep reading obligation.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ECO2220 MONEY AND BANKING (3)
A general survey of the economics of money and banking covering the nature and functions of money; monetary standards; structure and functions of the Federal Reserve System; monetary policy, monetary theory and the price level; interrelational of monetary and fiscal policy, recent monetary problems, and international finance. Prerequisite: ECO2013
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ECS200I COMPARATIVE ECONOMICS SYSTEMS (3)
This course surveys and analyzes the economic systems of Marxist-Leninist, Social Democrat, Third World Socialist, Mixed and pure Capitalistic models. The course considers individual decision-making structures, the functioning of these economies as a whole, and current topics affecting these systems.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ECS239O THE ECONOMY OF SPAIN (3)
An analysis of the Spanish economic system covering the historical development in the public and private sectors; agriculture and industry; and foreign trade relations. Only offered in conjunction with the Semester-In-Spain program. Meets Area 8 A.A. degree general education requirements.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EDF1005 INTRODUCTION TO EDUCATION (3)
This course satisfies one of the lower level prerequisite requirements for education majors. Its focus is teacher preparation for the 21st century by emphasizing social problems, student diversity, legal issues and curriculum themes. It provides an overview of the American education system and an introduction to the teaching profession. The field experience component of 16 hours in a local school, gives students opportunities to understand more about teaching. Students must obtain School Board of Broward County security clearance (cost-$60) and must be available for the term preferably from 8:00-2 pm on a weekday for field experience. Limited access section for TEA program instruction will require 60 hours of early field experience.
EDF1050 INTRODUCTION TO TESTS AND MEASUREMENT (3)
This course provides basic information on the use of measurement and evaluation in the educational process. It explores the theoretical foundation of test and measurement development and its practical application in the construction and evaluation of tests.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EDF2010 EDUCATIONAL PSYCHOLOGY (3)
This course reviews psychological principles relevant to effective teaching and learning. Stage theories will be used to address issues of pupil variability. The course will enable students to design and use objectives. Units on instruction will include behavioral, information processing, humanistic and cognitive theories. Finally, measurement and evaluation, as well as classroom management, will be addressed.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EDF2021 TEA: PROF SEM: SRVY OF HUM DEVELOP P (3)
This course is part of a series of four professional seminars for students enrolled in TEA seeking an A.A. degree from BCC. It emphasizes basic concepts and perspectives regarding the impact of human growth and development theory on the teacher, students, education, and society as a whole.
Prerequisite: EDF1005 EDF1034C SVG1931C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EDF2070 PERSPECTIVES IN EDUCATION (3)
A study of the principles of American education. Emphasis is placed on the historical, philosophical, sociological, and legal foundations of education in America and their impact on curriculum development, learning, and the teaching profession.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EDG2701 TEACHING DIVERSE POPULATIONS (3)
This course satisfies one of the lower level prerequisite requirements for education majors. Upon successful completion of this course, the students should be able to demonstrate an understanding of the basic concepts, perspectives and impact of current social and multicultural diversity issues on the teacher, student, and educational system as a whole. Students should also understand and appreciate the local, State and National implications of these issues. 16 hrs. of field experience in a local school is a requirement of this course. Students must have a current (within 2 years) School Board of Broward County security clearance (cost $60) and must have 3 hours free 1 day per week between 8:00-2pm for field experience. Limited access sections for TEA program instruction will require 60 hrs of early field experience. Prerequisites: Instructor approval or Prerequisite: EDF1005
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=0.00

EDG2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a students field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EEC1200 EARLY CHILDHOOD EDUCATION (3)
This course reviews the history and present day aspects of early childhood programs for infants, toddlers, preschool, and school children. Basic principles and foundations of early childhood education are covered.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EEC1603 CHILD GUIDANCE (3)
This course provides child guidance and group management techniques to foster the development of self-esteem, self-control, and social skills in young children.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EET1015C DC CIRCUITS (5)
Upon completion of this course the student should demonstrate an understanding of the definitions and interrelationships of voltage, current and power in circuits containing passive circuit elements and multiple sources. Extensive laboratory experience is included. Pre or Corequisite: MTB1325
Lec Hrs=64 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EET1025C AC CIRCUITS (5)
Upon completion of this course the student shall demonstrate a knowledge of circuit analysis using alternating voltage sources, including the behavior of resistive and reactive passive circuit elements, and frequency and transient response. Magnetic circuits, resonance and ideal transformers are also included. Extensive laboratory experience is included. Prerequisite: EET1015C MTB1325
Lec Hrs=64 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EET1141C LINEAR TECHNIQUES I (5)
Semiconductor principles, rectifier diodes, zener diodes, BJT amplifiers, negative feedback amplifiers. Field effect transistors and FET amplifiers. Extensive laboratory experience.
Prerequisite: EET1015C
Lec Hrs=64 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EET2037C CIRCUIT ANALYSIS (4)
Analysis of multisource networks, both AC and DC, the application of various network reduction theorems, frequency response analysis, high pass, low pass and frequency selective filters, oscillator circuits, computer aided analysis of active and passive circuits. Extensive laboratory experience.
Prerequisite: EET1025C EET1141C
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=0.00

EET2142C LINEAR TECHNIQUES II (4)
Power amplifiers, field effect transistors and amplifiers, thermal effects in semiconductors, thyristors, rectifier power supplies, voltage and current regulation, operational amplifier applications, differential amplifiers, and special devices. Extensive laboratory experience.
Prerequisite: EET1141C
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EET2326C ELECTRONIC COMMUNICATIONS (4)
Basic electronic communications systems, RF amplifiers and oscillators, amplitude modulation, single side band modulation, frequency and phase modulation, pulse...
modulation, demodulation, and digital communication methods. Extensive laboratory experience.
Prerequisite: EET1141C
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EET2355C DATA COMMUNICATIONS (3)
The student will study data communications systems including pulse amplitude, pulse width modulation and RS-232, RS-422, IEEE-488. Descriptions of BISync, HDLC and local area networks will be include UART and MODEM implementation.
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=0.00

EET2358C ADVANCED COMMUNICATION TECHNOLOGY (3)
This is an advanced course in telecommunication technology, with topics covering analog and digital communication, switching systems, Digital Prerequisite: EET2142C
Pre or Corequisite: EET2326C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EGS1001 INTRODUCTION TO ENGINEERING (3)
This course is a basic introduction to engineering. It will explore the various engineering fields, engineering problem solving, and basic math and physics used by engineers. Other topics such as safety, ethics, and engineering communications will also be addressed.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EGS110C ENGINEERING GRAPHICS (3)
Graphics as a means of communication for engineers. This is accomplished through sketching, use of instruments, computers (AutoCAD) and knowledge of orthographic projection. Areas of proficiency include drawing to scale, plan reading, construction of auxiliary and sectional views, construction of pictorials, knowledge of accepted practices, and an introduction to computer graphics.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=48 Oth Hrs=0 Fees=0.00

EGS2310 STATICS (3)
Forces on particles; equilibrium of a particle; moments of a force; couples; equilibrium of rigid bodies; centroids and centers of gravity; analysis of trusses, shear and moment diagram, friction, moment of inertia, Mohr's circle.
Prerequisite: PHY2048
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EGS2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0003 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 3 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0004 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 4 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0005 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 5 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0006 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 5 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0007 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 5 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0008 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 5 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ELT0009 EXPERIENTIAL LEARNING TEST (0)
EXPERIENTIAL LEARNING ASSESSMENT FOR 5 CREDIT CRS.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EME2040 INTRODUCTION TO EDUCATIONAL TECHNOL (3)
This course satisfies one of the lower level prerequisite requirements for education majors. Students will develop skills and competencies which are essential to integrate technology into the delivery of classroom instruction. Students will survey a variety of traditional and emerging technologies in education. Students will learn the use of technological tools and systems in a classroom environment.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMSI119 EMERGENCY MEDICAL TECHNICIAN BASIC (6)
This course is designed to prepare the basic emergency medical technician in accord with U.S. Dept. of Transportation curriculum and Florida State EMS guidelines includes an introductory survey of emergency medical services including medical legal/ethical aspects, role of the EMT, patient assessment, care of wounds and fractures, airway maintenance, medical and environmental emergencies, patient transportation, emergency, childbirth, basic extrication. Successful completion of EMS1119, EMS1119L, EMS1411 and EMS1421 provide eligibility for Florida State EMT Certification Examination. Admission to this course requires departmental approval. 96 hrs. Lec. Terms I, II, and III.
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMSI119L EMERGENCY MEDICAL TECHNICIAN SKILLS (1)
Lab practice and testing of basic emergency medical technician skills included in the Department of Transportation EMT ambulance curriculum and Florida State
EMS guidelines. Skills include CPR at AHA basic rescuer level, patient assessment, triage, airway maintenance, bandaging, splinting, mast suit application, emergency childbirth, and basic extrication. Successful completion of corequisites EMS1119, EMS1411, and EMS1421 leads to eligibility to take Florida State EMT Certification Examination. Health and accident insurance is recommended. 32 hrs. lab/ Terms I, II, and III.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=50.00

EMS1381 EMT RECERTIFICATION (1)
This course is designed to review the basic knowledge and skills of emergency care, and to introduce the student to current methods use of new equipment and changes in medicolegal aspects of emergency medical care. Successful completion of this course with a grade "C" or higher leads to Florida State Recertification as an EMT. This course may also be used by those who wish to prepare for the Florida State EMT Certification Examination. 24 hr. lec 8 hr. lab Term I, II, and III.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS1381L EMT RECERTIFICATION LAB (1)
Application of skills and procedures involved in the U.S. Department of Transportation's Emergency Medical Technician Refresher Course.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

EMS1411 EMERGENCY MEDICAL TECHNICIAN (EMT) (2)
Practical application of (EMT), emergency medical technician clinical knowledge and skills under professional supervision in the Hospital setting. Course emphasizes the development of student skill in recognition of signs and symptoms of illness and injuries and in the proper procedures of emergency care. Successful completion of EMS1119, 1119L, 1411 and 1421 provide eligibility for Florida State EMT Certification Examination. Health and accident insurance recommended. Liability insurance required.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=48 Fees=49.21

EMS1421 EMERGENCY MEDICAL TECHNICIAN (EMT) (2)
Practical application of (EMT) emergency medical technician clinical knowledge and skills under the professional supervision in the prehospital or field setting. Provides for observation and patient care experiences in EMS rescue vehicles. Course emphasizes the development of student skill in recognition of signs & symptoms of illness and injuries and in the proper procedures of emergency care. Successful completion of EMS1119, 1119L, 1411 and 1421 provides eligibility for Florida State EMT Certification Examination. Health and accident insurance recommended. Liability insurance required.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=48 Fees=49.21

EMS2010 BODY SYSTEMS FOR THE PARAMEDIC (3)
This course presents basic information of the structure and function of the human body. The general concepts of anatomy and physiology for the assessment and management of emergency patients by the paramedic in the prehospital field area will be emphasized.
United States Department of Transportation (USDOT) National Standard Paramedic Curriculum anatomy and physiology objectives will be included.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2311 EMT LEADERSHIP (2)
Introduces the student to professional issues in EMS through special projects. Prerequisite: EMT and paramedic certificate courses. 32 hrs. Lec. Term I. (Term I only)
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2391 PARAMEDIC REVIEW RECERTIFICATION (2)
This course is based on the department of transportation's (DOT), paramedic refresher training course and is designed to review and update the graduate in the delivery of emergency medical services. Successful completion of the course with a grade of "C" or higher provides eligibility for State of Florida Paramedic Recertification.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2391L PARAMEDIC REVIEW RECERTIFICATION LAB (1)
Application of skills and procedures involved in the Department of Transportation's Paramedic Refresher Course.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

EMS2395 TOPICS IN EMERGENCY MEDICAL SERVICE (1)
This course is designed as a seminar in emergency medical care topics for the graduate paramedic and others interested in the delivery of prehospital emergency medical services. Topics will review the U.S. Department of Transportation five divisions paramedic curriculum and cover current developments, updates and changes in the EMS field. Course content may be submitted to the State of Florida EMS Office as continuing education contact hours for paramedic and EMT Recertification. 16 hrs. lec./on demand.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2513 CRISIS INTERVENTION (3)
Deals with the emotional responses of persons in emergency situations, as well as, the emergency care of the mentally ill person. Includes the legal aspects of caring for the emotionally ill person. 48 hr. lec. Term II
Prerequisite: Certification courses on demand.
Pre or Corequisite: PSY2012
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2631 PARAMEDIC SCIENCE I (3)
Topics deal with EMS systems, Paramedic role and responsibilities, Paramedic well-being, injury, and disease prevention. Legal aspects, ethics, therapeutic communications, life span development, medical terminology, patient documentation including web based computer recording is covered. Systems as they maintain homeostasis with Didactic aspects of EMS/ambulance operations, Multiple Incident Command (MIC), rescue awareness and operations, hazardous materials incidents and crime scene awareness is presented. Basic math computation for medication administration is introduced. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic curriculum objectives for Module 1, Units 1-5, 9, 10, Module 3, Unit 6, and Module 8.
Pre or Corequisite: EMS2010 EMS2631L EMS2650
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2631L PARAMEDIC SCIENCE I LAB. (1)
Review of basic life support skills required for advanced level life support skills practiced by the Paramedic. Additional skills include those contained in the latest Department of Transportation (DOT) National Paramedic Curriculum and include prep topics related to Paramedic well-being, injury prevention, ambulance operations, Medical Incident Command (MIC), Haz-Mat and crime scene awareness. The student is expected to demonstrate basic level skill proficiency in patient care scenarios appropriate for beginning Paramedic practice.

Corequisite: EMS2010 EMS2631 EMS2650
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=50.00

EMS2632 PARAMEDIC SCIENCE II (3)
Topics include general principles of pathophysiology, pharmacology, venous access and medication administration. Patient Assessment including history taking, techniques of physical examination, assessment procedures, clinical decision making, and radio communications are included. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 6,7,8 and Module 3, Units 1-5.
Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2632L PARAMEDIC SCIENCE II LAB. (1)
Skills Lab related to pharmacology, venous access and medication administration. Patient Assessment skills including history taking, techniques of physical examination, assessment procedures, clinical decision making, and radio communications are included. Other topics include Airway Management/Ventilation and cardiology. Material includes skills in the U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 6,7,8 and Module 3, Units 1-5.
Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=75.00

EMS2633 PARAMEDIC SCIENCE II - CARDIO-RESPI (3)
Topics deal with Airway Management and ventilation. Selected units from Medical Emergencies are Pulmonary conditions, and Cardiology to include an introduction to 12 Lead Interpretation and the prehospital management of acute myocardial infarction. Material covers 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 2, and Module 5, Units 1-2.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2634 PARAMEDIC SCIENCE III - TRAUMA (3)
Topics deal with Trauma patient care including trauma systems/mechanisms of injury, hemorrhage and shock, of soft tissue trauma, and burns. Trauma of the head and facial area, spinal, thoracic, abdominal and musculoskeletal system is also covered. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 4.
Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2634L PARAMEDIC SCIENCE III - TRAUMA LAB. (1)
Skills lab dealing with topics of trauma care, medical emergencies, and special care considerations related to obstetrics, neonatology, pediatrics, geriatrics, abuse and assault, patients, with special challenges and acute interventions for the chronic care patient. Material includes

U.S. Department of Transportation (DOT), National Paramedic Curriculum objectives for Module 4, and Module 5, Units 3-14 and Module 6, Units 1-6.
Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=75.00

EMS2635 PARAMEDIC SCIENCE III - MEDICAL EME (3)
Topics include Medical Emergencies related to neurology, endocrinology, allergies and anaphylaxis, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, infectious and communicable diseases, behavioral and psychiatric disorders, gynecology, and obstetrics. Special Considerations related to neonatology, pediatrics, geriatrics, abuse and assault, patients with special challenges and acute interventions for the chronic care patient are also included. Material includes U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 5, Units 3-14 and Module 6, Units 1-6.
Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641 EMS2651
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2636 PARAMEDIC SCIENCE IV (3)
Prerequisite: EMS2634 EMS2634L EMS2635 EMS2641 EMS2652
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EMS2636L PARAMEDIC SCIENCE IV LAB. (1)
Final skills lab dealing with scenarios covering all aspect of the curriculum. Demonstration of skill competencies for Certification in ACLS, PEPP, 12 Lead ECG, Support, Emergency Management of Acute Stroke, and Traumatic Brain Injury required.
Prerequisite: EMS2634 EMS2634L EMS2635 EMS2641 EMS2652
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=75.00

EMS2641 PARAMEDIC SCIENCE - HOSPITAL CLINIC (2)
First of three hospital courses stressing Advanced Life Support (ALS) skills for the paramedic student. Provides for directed supervised experiences in local hospitals including patient assessment, documentation and recording of patient care. Clinical experiences with patients having Cardio-Respiratory problems is stressed. Invasive procedures for IV therapy and medication administration are emphasized. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required.
Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650
Lec Hrs=0 Lab Hrs=72 Oth Hrs=0 Fees=49.21

EMS2642 PARAMEDIC SCIENCE - HOSPITAL CLINIC (2)
Second of three hospital courses continuing Advanced Life Support (ALS) skills for the paramedic student. Provides for directed supervised experiences in local hospitals. Clinical experiences with patients having Medical and Trauma...
Provides for directed, supervised experiences on Advanced EMS calls under supervision of EMS agency preceptor. Final field course where student serves as team leader on EMS2653 PARAMEDIC SCIENCE IV FIELD

Lec Hrs=0 Lab Hrs=0 Oth Hrs=84 Fees=49.21

 EMS2643 PARAMEDIC SCIENCE - HOSPITAL CLINIC (2)
Last hospital courses involving patient care in a variety of emergency and health care agency sites. Clinical experiences with patients of all age groups and medical/traumatic conditions is continued. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required.

Prerequisite: EMS2634 EMS2634L EMS2635 EMS2642 EMS2652
Lec Hrs=0 Lab Hrs=0 Oth Hrs=72 Fees=49.21

 EMS2650 PARAMEDIC SCIENCE I FIELD (1)
First of four field courses dealing with the application of didactic material in the rescue field. Provides for directed, supervised experiences on EMS Advanced Life Support (ALS) vehicles. Emphasis on clinical activities and observations related to the US Department of Transportation (DOT), National Paramedic Curriculum, Module 1 and 8. Activities limited to practice of basic life support skills, assisting as a member of the EMS team and observation of paramedic level skills and activities. Documentation of patient care observations and patient care experiences using web based data collection system is required. Student health, accident and liability insurance is required.

Corequisite: EMS2010 EMS2631 EMS2631L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=58 Fees=49.21

 EMS2651 PARAMEDIC SCIENCE II FIELD (3)
Second of four field courses that provides for directed, supervised experiences on EMS Advanced Life Support (ALS) vehicles. Emphasis on clinical activities related to physical assessment with emphasis on patients with Cardio-Respiratory problems. Invasive procedures for IV therapy and medication administration are introduced. Data recording of skill competencies on web based computer system is required. Health and Liability insurance required.

Prerequisite: EMS2010 EMS2631 EMS2631L EMS2650
Lec Hrs=0 Lab Hrs=0 Oth Hrs=84 Fees=49.21

 EMS2652 PARAMEDIC SCIENCE III FIELD (3)
Third of four field courses stressing continuation of Advanced Life Support Skills for the Paramedic student. Provides for directed, supervised experiences on Advanced Life Support (ALS) vehicles. Emphasis on clinical activities related to trauma care, medical emergencies, obstetrics, pediatrics, geriatrics and specialty areas. Health and Liability insurance required.

Lec Hrs=0 Lab Hrs=0 Oth Hrs=84 Fees=49.21

 EMS2653 PARAMEDIC SCIENCE IV FIELD INTERNSH (4)
Final field course where student serves as team leader on EMS calls under supervision of EMS agency preceptor. Provides for directed, supervised experiences on Advanced Life Support (ALS) vehicles with increasing responsibility for the management of the EMS response. Health and Liability insurance required.

Prerequisite: EMS2632 EMS2632L EMS2633 EMS2641
Lec Hrs=0 Lab Hrs=0 Oth Hrs=96 Fees=0.00

 EMS2850 PARAMEDIC CURRICULUM BRIDGE (4)
This course provides a bridge for the 1998 DOT Paramedic Curriculum. Topics include emergency care coverage for heart attack and stroke victims, enhanced 12 lead interpretation, use of thrombolytics, and inclusion/exclusion criteria for thrombolytic therapy. In addition, this course includes a number of sections not covered or briefly covered in 1985 DOT National Paramedic Curriculum. These specific topics include the well being of the paramedic, injury prevention, therapeutic communications, life-span development, general principles of pathophysiology, clinical decision making, hematology, abuse and neglect, patients with special challenges, acute interventions for the home healthcare, assessment based management, and crime scene awareness. Material includes 1998 U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 1, Units 2,3,6,9, and 10, Module 3, Unit 4, Module 5, Units 2 and 9.

Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

 ENCC010 COLLEGE PREPARATORY WRITING SKILLS (4)
An overview of the fundamentals of grammar, mechanics, usage, sentence structure, and paragraph development. With a "D" or an "F", a student must repeat the course. Credit for this course may not be used to meet degree requirements. Students must complete the 16-hour lab requirement to receive credit for ENCC010.

Corequisite: ENCC010L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

 ENCC010L COLLEGE PREPARATORY WRITING SKILLS (0)
A laboratory component that will supplement classroom instruction in ENCC010. Instruction focuses on the individual needs of the student. Students will have individualized prescriptions depending on the results of the diagnostic test and must complete the 16-hour lab requirement to receive credit in ENCC010.

Pre or Corequisite: ENCC010
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=25.00

 ENCC021 COLLEGE PREPARATORY WRITING SKILLS (4)
A refinement of grammatical, mechanical, and usage principles including an overview of the strategies of paragraph and essay development. With a "D" or an "F", a student must repeat the course. Credit for this course may not be used to meet degree requirements. Students must complete the 16-hour lab requirement to receive credit for ENCC021.

Corequisite: ENCC021L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

 ENCC021L COLLEGE PREPARATORY WRITING SKILLS (0)
A laboratory component that will supplements classroom instruction in ENCC021. Instruction focuses on the individual needs of the student. Students will have an individualized prescription depending on the results of the
diagnostic test and must complete the 16-hour lab requirement to receive credit in ENC0021.
Pre or Corequisite: ENC0021
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=25.00

ENC0085 INTEGRATED GRAMMAR & WRITING SKILLS
(8)
An integrated grammar and writing skills course for students wishing to complete both two-track college preparatory courses in one semester. Course provides an overview of grammar, mechanics, usage, and paragraph development as well as the refinement of those skills and the writing of multi-paragraph essays. Students who earn a "D" may enroll in ENC0021. Students who receive an "F" must enroll in ENC0010. Students must complete the lab requirement to receive credit in ENC0085. Credit for this course may not be used to meet degree requirements.
Corequisite: ENC0085L
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ENC0085L INTEGRATED GRAMMAR & WRITING SKILLS
(0)
A laboratory course that supplements classroom instruction in ENC0085. This course must be taken concurrently with ENC0085. The writing lab hours must be completed in order to receive credit for the class.
Pre or Corequisite: ENC0085
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=50.00

ENC1101 COMPOSITION I
(3)
A university parallel course in which the student writes expository themes in various modes. Research methods and library skills are introduced and a documented paper is required. Placement in ENC1101 is determined by both standard and departmental assessment tests. A student must earn a grade of "C" or higher to meet the requirements of the Gordon Rule. Special fee charged. Meets Area 1 general education requirements for the A.A. degree. Meets Area 1A general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

ENC1102 COMPOSITION II
(3)
A composition course focusing on writing for business, science, and technology. Assignments include letters, memos, resumes, reports, proposals, an oral presentation, and the use of graphics. Students use a variety of research and investigative techniques to produce documented papers on science, business or technological subjects. Students must pass either ENC1102 or ENC2210 to fulfill Area 1B general education requirements and Area 7 for the writing requirements for the A.A. degree. Meets Area 5 general education requirement for the A.S. degree. Students must pass with a minimum of "C" or higher to meet the requirements of the Gordon Rule.
Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ENG2101 THE FILM AS LITERATURE
(3)
An examination of the elements of film contrasted to those of literature. The elements of film, visual and otherwise, are presented with representative examples from genre and general films. The course provides an opportunity for viewing significant films and sharing in the evaluation. Meets Areas 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. or A.A.S. degree.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ENL2022 BRITISH LITERATURE
(3)
A study of man's relationship to the natural environment, the increasing sense of social responsibility, the liberated woman, the continuing intellectual revolution, and the origins of current social and economic problems in British literature of the nineteenth and twentieth centuries. Includes such writers as the romantic poets and Tennyson, Browning, Hardy, Yeats, Shaw, Eliot, and Thomas. Critical analysis required. Meets Areas 2A and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. and A.A.S. degree.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ENL2330 INTRODUCTION TO SHAKESPEARE
(3)
A study of the background and texts of Shakespeare's sonnets and plays, Shakespeare's life and the period of time in which he lived, and the structure and content of various Shakespearean plays. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S./A.S. degree.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ESC1000 EARTH SCIENCE
(3)
An integration of the three classic disciplines of the earth sciences, geology, meteorology, and oceanography, and man's place in the universe. Course will focus on the basic
principles governing these disciplines, and the effect of each on man. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Terms I, II, and III. Placement by Testing Department.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ESTC1250C MATERIALS AND PROCESS *(3)*
Introduces the materials and process commonly used in building construction. Provides background relating to physical properties, sources and costs. Includes a study of standard manufacturing processes and recent methods of application; and ASTM procedures for testing concrete and steel, soils, and other building materials.

Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

ETC2450 STRUCTURAL DESIGN *(3)*
Simplified design of reinforced concrete structures including beams, columns, footings, retaining walls and pile foundations. Classification of soils and interpretation of borings from the standard penetration test.

Prerequisite: ETC2530 or equivalent.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ETD1320 BASIC CAD *(3)*
First course in computer aided design (CAD), lab work using AutoCAD software. Topics include fundamentals of DOS, AutoCAD command structure, setting units and limits, drafting primitives, layering, use of editing tools; grid, snap, and axis commands. Assignments requiring extensive use of the CAD lab. Extra lab hours are available.

Lec Hrs=16 Lab Hrs=48 Oth Hrs=0 Fees=50.00

ETD2331C AUTOLISP PROGRAMMING *(3)*
This course will teach students to use AutoCAD's embedded programming language, AutoLISP. Emphasis will be placed on production of small time saving programs to enhance AutoCAD's drafting capabilities. Students will learn proper programming and debugging techniques.

Prerequisite: ETD1320 ETD2350C.

Lec Hrs=16 Lab Hrs=48 Oth Hrs=0 Fees=0.00

ETD2350C ADVANCED CAD *(3)*
Additional topics in AutoCAD. These include blocks, move and copy, array, mirror, text, text styles, 3D and isometric modes. The development of macro operations. As in basic CAD, extra lab hours are available.

Prerequisite: ETD1320

Lec Hrs=16 Lab Hrs=48 Oth Hrs=0 Fees=0.00

ETG2530 STRENGTH OF MATERIALS LAB *(1)*
Laboratory sessions emphasize typical solution of problems applied to structural engineering with the help of computers. This course should be taken concurrently with ETG2530L. Prerequisites: MTB1321, MTB1322, PHY1001 or instructor's approval.

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=0.00

EUH1000 WESTERN CIVILIZATION *(3)*
A historical survey of Western culture from its roots in the ancient Near East to the beginning of the modern period in the 17th century. The approach is that of social history which examines the socio-economic, intellectual, political and other cultural forces which have shaped Western civilization. May also be taken for honors credit. Meets Areas 3A and 8 general
EUH1001 WESTERN CIVILIZATION (3)
This course surveys the major political, social, economic, cultural and international developments that shaped Western Civilization from the early 17th century to the 21st century. Major topics include the evolution of the European state, the emergence and consequences of modern political ideologies, and the roles of revolution, war, industrialization and technological innovations in an era that saw Europe achieve and then lose world hegemony. May also be taken for honors credit.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EUH2032 HISTORY OF THE HOLOCAUST (3)
An examination of the historical origins, execution, and consequences of the Holocaust. Meets Area 3A or 6 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EUH2052 HISTORY OF SPAIN (3)
This course will examine Spain's historical development from prehistoric times to the present. Special attention will be paid to the impact of important historical events such as the Enlightenment, the Napoleonic Wars, the fall of absolute monarchy, the several military uprisings during the nineteenth and twentieth centuries, and industrialization on Spanish society. The last part of the course will analyze the Spanish Civil War, the Franco Regime, and the present constitutional monarchy.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR1009 ENVIRONMENTAL SCIENCE (3)
Study of the physical environment, its relationship with the biosphere, and man's impact upon natural systems. Meets Area A4 or 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR1858 ENVIRONMENTAL REGULATION (3)
This course deals with the purpose of federal, state, and local environmental law and its impact on South Florida and the larger world community. Reason for protection of the environment, compliance with legislation, and the concept of due diligence are emphasized. Extensive use of the case studies approach will be used to illustrate the application of law. Placement by Testing Department.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR1868 ENVIRONMENTAL REGULATIONS II (3)
This course will provide environmental technologists in the hazardous materials area with an actual or simulated experience in applying the regulations and compliance methods specific to their area. Topic to be covered will include OSHA, DOT, RCRA, CERCLA, TSCA, FIFRA, EPA, superfund, and clean air, land and water issues. Placement by Testing Department or Prerequisite: EVR1858
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR1868L ENVIRONMENTAL REGULATIONS II LABORA (1)
This course will provide environmental technologists in the hazardous materials area with an actual or simulated experience in applying the regulations and compliance methods specific to their area. Topic to be covered will include OSHA, DOT, RCRA, CERCLA, TSCA, FIFRA, EPA, superfund, and clean air, land and other issues. Special fee charged. Placement by Testing Department or Prerequisite: EVR1858
Pre or Corequisite: EVR1868
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=10.00

EVR2805 HAZARDOUS MATERIALS TOXICOLOGY (3)
This course will provide hazardous materials technicians with an understanding of potential health effects which may result from exposure to hazardous materials. Topics to be covered will include biological interactions with toxic substances, metabolism of toxic substances, genetic toxicology, systemic toxicology, toxic agents, environmental toxicology, radiation health effects and common chemical hazards. Placement by Testing Department or Prerequisite: BSC1005 CHM1025
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR2930 ENVIRONMENTAL SCIENCE SEMINAR (1)
Selected current topics in environmental science and related subjects. Placement by Testing Department.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVR2949 CO OP WORK EXPERIENCE (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Pre-requisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. Placement by Testing Department.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVS1671 HAZARDOUS MATERIALS RECOVERY AND DI (3)
This course is designed to explain the methods of recovery, incineration and/or disposal of hazardous waste. Topics include contracting with qualified disposal organizations, obtaining permits and ensuring regulatory compliance of hazardous waste. Field trips required. Prerequisite: CHM1025 EVR1858
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

EVS1802 INDUSTRIAL WASTE STREAMS (4)
This course will familiarize the student with common categories of industrial process facilities. Using the techniques developed in this course, the student will become familiar with a variety of industrial processes. The student should gain an appreciation for how to reduce the hazardous material waste stream. Field trips required. Instructor permission or Prerequisite: CHM1025 CHM1025L
Lec Hrs=64 Lab Hrs=8 Oth Hrs=0 Fees=0.00

EVS2005 WATER SUPPLY AND WASTE WATER DISPOS (3)
A single course covering the sources, treatment and distribution of potable water and the collection, treatment and disposal of wastewater. Field trips include inspection of local facilities.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**EV52893C ENVIRONMENTAL SAMPLING AND ANALYSIS** (5)
This course provides an introduction to EPA and DEP-approved methods for the collection and analysis of environmental samples. The laboratory is integrated with class theory. Topics include: sampling of water, soils, sediments and hazardous waste; application of field and laboratory-based analytical methods; documentation procedures; method validation including generation of precision, accuracy, and detection limits; writing comprehensive and project-specific quality assurance plans.
Prerequisite: CHM1025 CHM1025L.
Lec Hrs=48 Lab Hrs=64 Oth Hrs=0 Fees=20.00

**FFP1540 FIRE PROTECTION AND DETECTION SYSTEMS** (3)
This course examines requirements for and testing of fire sprinkler and standpipe systems, chemical systems, detection and alarm systems.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP1780 FIRE ADMINISTRATION I** (3)
An introduction into managing fire services and community fire protection programs. Relationships between the insurance industry, the professional community, contemporary management and planning concepts are analyzed.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP1810 FIREFIGHTING TACTICS & STRATEGY** (3)
A study of tactical considerations and strategic options employed in the extinguishment of fires; pre-planning and company level field operations will be analyzed with application of course concepts. 3 hrs. lec.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP1830 INTRODUCTION TO HAZARDS** (3)
An indepth study of the details and dynamics of natural and man-made hazards. Includes methods and means to measure, monitor and predict the physical impact of hazards on society. Special emphasis on hazards that impact Florida.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2111 FIRE CHEMISTRY** (3)
Study of the physical and chemical properties of matter, with a particular emphasis on hazardous materials, hydrocarbons, oxidation-reduction chemistry, and residuals of pyrolysis. Topics covered include atomic structure, the periodic table, chemical bonding, chemical measurement, stoichiometry, and the study of chemical properties according to group, class, and reactivity. Sample collection and analysis is included as a practical component of the course. Prerequisite: Municipal Fire Inspector Certification.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2301 FIRE HYDRAULICS** (3)
Study of the physical properties of water used in fire protection. Basic hydraulic measuring units, facts, theories and formulas for problem solving.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2302 FIRE APPARATUS AND PROCEDURES** (3)
Course offers study in evolution of fire apparatus; apparatus construction; pumps and pump accessories; pumping procedures; pump tests; trouble shooting; aerial ladders; aerial platforms; maintenance; driving fire apparatus.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2401 HAZARDOUS MATERIALS I** (3)
Study of hazardous chemicals and processes including storage and transportation, mitigation, fire fighting, and review of Federal, state and local laws pertaining to hazardous materials.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2501 HAZARDOUS MATERIALS II** (3)
A continuation and expansion of FFP2500 to include radioactive materials, corrosives, pesticides, rocket propellants, and other related materials.
Prerequisite: FFP2401
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
Course Descriptions

**FFP2521 CONSTRUCTION AND PLANS EXAMINATION** (3)
Students will review actual building plans and apply codes, standards and inspection techniques, to find errors and omissions, students shall make appropriate corrections according to the code, and with preferences identified.
Lec Hrs=45 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2604 ORIGIN & CAUSE** (3)
A study of the arson and investigation problems examining facts and figures, motives and the role of fire department in arson suppression. Reviewing chemistry of explosives. Analyzing the juvenile arson problem. Analysis of urban fires, automobile fires, and reports, interrogation and presenting the arson case in the courtroom.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2630 LATENT INVESTIGATION** (3)
Study of proper crime scene/fire scene investigation including conduct of appropriate documentation, collection and preservation of evidence, and the qualitative analysis of data to determine whether or not prosecution for the crime of arson is indicated. Special situations/problems will be examined including the use of explosives, and hazardous materials. Arson for profit will be discussed with a distinction made between civil and criminal situations.
Pre-requisite: must be Fire Inspector or Police Officer certified.
Prerequisite: FFP1120 FFP1505 FFP1510 FFP1540 FFP2521
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=0.00

**FFP2670 LEGAL ISSUES IN FIRE INVESTIGATIONS** (3)
Study of the applicable laws and attending legal considerations associated with the successful prosecution of arson cases. Specific areas of concentration include witness statements, interviews, interrogations, depositions, and written reports. Expert qualification and effective courtroom testimony will be examined and evaluated. Distinctions will be discussed between civil and criminal situations. Students will be required to prepare a case for prosecution from evidence gathered and/or provided in class, and present their testimony in a mock trial activity.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2690 FIRE SERVICE PHOTOGRAPHY** (3)
Fundamentals of good photography, processing both black and white and color negatives and prints, fire science photography, arson photography, evidence photography, fire safety inspection photography. On demand.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2710 FIRE DEPARTMENT SUPERVISION** (3)
Study of superior subordinate relationships, motivation, leadership, morale, discipline, work planning and other supervisory responsibilities related to fire dept. operations.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2740 TECHNIQUES OF INSTRUCTION IN THE FI** (3)
Study of the instructor's role and responsibility in the teaching/learning process, introduction of teaching/learning styles, job task analysis, learning objectives, lesson planning and development, testing and evaluation, and administration of programs. 3 hrs. Lec.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2741 FIRE SCIENCE COURSE DESIGN** (3)
Course covers the principles of effective curriculum design in the Fire Service field. It stresses the principles of adult and student-centered learning. Students learn to design courses and units that address learning, performance, and behavioral objectives as related to Fire Science.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2781 FIRE ADMINISTRATION II** (3)
Provides a comprehensive overview of management aspects of fire prevention and inspection services, emergency operations, budgets, personnel, and labor relations. Explores measurements and evaluation of fire department productivity. Prerequisite: FFP1780
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2800 EMERGENCY MANAGEMENT PUBLIC EDUCATION** (3)
The design, development and delivery of emergency disaster safety and informational programs to the public, including targeting program audiences and evaluating the effectiveness of the programs.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2811 APPLICATION OF FIREGROUND TACTICS** (3)
This course applies the basic principles learned in FFP1400 to specific fire problems, e.g., churches, flammable gases and liquids, lumberyards, department stores, residential, supermarkets, and warehouses. Included are additional pointers on solving these problems and those of a miscellaneous nature; also command responsibilities on the fireground.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2831 HAZARD PLANNING & MITIGATION** (3)
An examination of how to develop programs that will reduce losses from future disasters, emergencies and other extreme events caused by natural and man-made hazards.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2840 DISASTER RESPONSE & RECOVERY** (3)
A study of how to develop programs designed to plan for and assist in disaster response efforts and disaster recovery efforts.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2841 EMERGENCY PLANNING FOR BUSINESS & I** (3)
A study of the contingency planning process of emergency/disaster preparedness in the corporate world, including a step-by-step approach to emergency planning, response and recovery for companies of all sizes.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2939 INTRODUCTION TO COMMAND** (3)
A study of principles associated with the Incident Command System (ICS). Discusses how personnel can effectively protect themselves from a variety of potential dangers, perform responder tasks in a situation which combines the elements of a hazardous materials incident and a crime scene, notify and respond to appropriate authorities from local, state, and federal jurisdictions.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FFP2949 CO OP WORK EXPERIENCE** (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the
basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FIL2000 INTRODUCTION TO FILM STUDIES** (3)
This course is designed to provide an introduction to film as an art form, cultural product and social artifact. It will include understanding of basic analytical and technical forms, concepts, issues and development of critical skills. It will also include the history, development, theory and criticism of film art, as well as the basic principles of film making and film production.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FIN1100 PERSONAL FINANCE** (3)
This course provides a survey of the areas of personal economic problems with which all individuals must contend. Course content guides each person towards receiving favorable results in the following areas: buying on credit, borrowing money, using bank services, and investing savings; selecting from various types of insurance coverage; home ownership vs. renting; obtaining investment information, investing in stocks and bonds; income taxes; Social Security; Medicare, retirement planning and annuities; and estate planning, wills, and trusts.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FIN2050 FINANCE OF INTERNATIONAL TRADE** (3)
This course provides a general survey of international trade. Topics studied include transportation modes, cargo insurance and the various special terms of sale used in overseas transactions. Also covered are import/export, foreign exchange, pricing and quotations; import/export documentation and procedures; documentary credits, international payments and collections; bank financing sources for international trade and alternative financing techniques.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FOS2201 FOOD SERVICE SANITATION & SAFETY** (3)
This course provides the student with the basic concepts of food microbiology and food borne diseases. Standards enforced by food regulatory agencies will be identified. All information will lead to the application of measures to prevent food borne illness. This course includes a comprehensive exam leading to national certification.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FRE1000 ELEMENTARY FRENCH CONVERSATION** (3)
A custom made course for those residents in the community who require a cursory knowledge of French to help them communicate with French speaking people. One hour language laboratory weekly. Meets Area 8 general education requirement for the A.A. degree. Special fee charged.
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=15.00

**FRE1120 BEGINNING FRENCH I** (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with FRE1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**FRE1121 BEGINNING FRENCH II** (4)
Continuation of FRE1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: FRE1120
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**FRE1170 FRENCH STUDY TRAVEL** (3)
A course designed for students who wish to combine the study of French with subsequent travel to a French speaking region. Prerequisite: FRE1120 or FRE1000 or instructor's approval. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: FRE1120
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FRE2201 INTERMEDIATE FRENCH II** (3)
Emphasis on composition, comprehension and conversation. Interesting tour through French history, geography and literature. Aim of course to give student a necessary background in the culture of France and to achieve fluency in oral and written expression. This course completes intermediate year. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meet Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: FRE2220
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**FRE2220 INTERMEDIATE FRENCH I** (4)
Review of most salient grammatical principles plus introduction of grammatical and idiomatic material. Composition and readings in new French prose. Conversation at an easy and enjoyable pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: FRE1121
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**FSS1221C VOLUME FOODS** (3)
Upon successful completion of this course, students should be able to demonstrate ability in preparing a full dinner and lunch menu, setting a dining room, and exhibiting proper clean-up and sanitation procedures. In addition, the students determine food costs and set prices for a given food cost.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=25.00

**FSS1240C CLASSICAL CUISINE** (3)
This course provides the professional culinary student with new menu items and terminology. It sets and applies standards to hot/cold hors d'oeuvres, appetizers, large and small dinner parties, and pastry products. The students observe preparation skills, write recipes, practice correct serving techniques, and taste the prepared food. Instructor's approval orPrerequisite: FSS1221C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=25.00

**FSS1284 CATERING** (3)
This course provides a survey of catering operations. Topics covered include the preparation of a menu, estimating cost and food quantities, planning the room arrangement, the
set up of buffet and service tables, and the performance of services. In addition, the allocation of time to prepare, transport, and set up the equipment and food for a catered affair are studied.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEB2112 ENTREPRENEURSHIP**  (3)
This course presents a modern treatment of business. It explores start-up/buy-out, franchising, business plans, marketing plans, human resources, financial planning, legal forms, products/services, selling, advertising, management policies, accounting systems, tax issues, capital management, computers, risk management, and ethical issues.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEB2430 BUSINESS ETHICS**  (1)
A brief practical approach to recognizing, understanding and solving ethical problems confronting today's business people and organizations. Review the historical development of ethics, examine a variety of ethical dilemmas, and practice resolving them through ethical reasoning. Address reference to statutory and professional codes. Stress logical, responsible decision-making; address individual, organizational and societal needs. 1 hour weekly; or 5-week sessions, 3 hours weekly, 1 hour elective.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEB2949 CO OP WORK EXPERIENCE**  (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEB2955 INTERNATIONAL CURRENT BUSINESS PRAC**  (3)
Upon successful completion of this course, students should have a broad conceptual viewpoint of international business activity in areas such as finance, marketing, production and manufacturing. This course covers the nature and purpose of business between nations as well as the concepts of the multinational corporation and its importance in the world marketplace. Business concepts of other nations are studied through actual visits to foreign business enterprises. Emphasis is given to the differences in business policies between countries and their relationship to business activity.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEO1000 INTRODUCTION TO GEOGRAPHY**  (3)
This course is a study of the relationship between human and their environment. Analysis will specifically target the earth's physical systems including land forms and climates and human impact on the world's natural resources involving a study of cultures, populations, urban land use and conservation projects. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEO2040 GEOPHYSICS OF THE WESTERN WORLD**  (3)
A regional survey of the human/cultural and physical/environmental aspects of the western world including the following regions: Europe, Russia and the C.I.S., Anglo America, Middle America, South America, and Australia. The characteristics and special problems of each region will be analyzed from a geographical perspective in order to understand global diversity and the forces and issues that help shape the world.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**GEO2080 PHYSICAL GEOGRAPHY**  (3)
This course serves as an introduction to the manner in which natural systems function at global and regional scales. The course uses a geographical perspective to analyze landforms, climate, the water cycle, and the biosphere, examining spatial relationships and regional variations and addressing spatial
patterns of human activity as related to environmental phenomenon.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

GEO2370 CONSERVATION OF NATURAL RESOURCES (3)
A survey of the use and mismanagement of natural resources within the environment, including problems of development, pollution, biotic system, population, resource depletion, and technology. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

GER2201 INTERMEDIATE GERMAN II (3)
Emphasis on composition and comprehension and conversation. Interesting tour through German history, geography and literature. Aim of course to give student a necessary background in the culture of Germany and to achieve fluency in oral and written expression. This course completes intermediate year. Prerequisite: GER2220 or equivalent. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
relations are discussed. Students registering in GLY1010 are strongly urged to register in the companion lab GLY1010L:

Some senior institutions require a 4 credit geology course. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department.

GLY1010L PHYSICAL GEOLOGY LABORATORY (1)
Study of common rocks and minerals including their classification and origin and the interpretation of landforms through the study of geologic maps. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. One two hour laboratory weekly. Special fee is charged. Placement by Testing Department.

GLY1100 HISTORICAL GEOLOGY (3)
An earth systems study of the origin and evolution of the earth and the history of life on our planet. The course encompasses the causes and effects of mass extinction on the history of life, and the role of plate tectonics on the geologic and biologic evolution of earth. Field trips are optional. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department.

GLY1100L HISTORICAL GEOLOGY LABORATORY (1)
One two-hour session per week. Experimental topics include fossils, paleogeography, rock correlation, and interpretation of geologic maps as related to the lectures. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: GLY1010

GRA1120C PUBLICATION DESIGN (3)
This course introduces the student to principles governing page layout and the design of publications. The industry standard software will be used for the production of professional looking publications which may include magazines, news-letters, catalogs, newspapers, books, or annual reports. Topics covered include the basic principles of effective typography; the use of grids; integration of graphics and photos into publications; basic information design principles, working with spot, process color and separations, principles of page assembly and other methodologies to design and produce a variety of single- and multi-page publications.

GRA113IC APPLIED GRAPHIC DESIGN FOR MULTIMED (3)
This course will give the student an introduction to graphic design for computer screens. Students will use digital image editing software to create effective computer screen design elements. Color theory and visual communication is introduced emphasizing color as it relates to non-print display, calibration, pixel properties, light mixing, additive vs. subtractive color theory. Digital image editing activities include selecting and creating shapes, and using painting techniques.

GRA115IC DIGITAL ILLUSTRATION (3)
This course addresses the concepts and techniques necessary to create computer-generated illustrations for use in print, web and multimedia applications. Students will work with software packages utilized by professional designers. Assignments include the creation of technical illustrations, business graphics (charts, maps, tables, and diagrams) and art for other applications. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.

GRA1201C DIGITAL TYPOGRAPHY (3)
This course is an introduction to computerized typography. The emphasis is on the visual effects of type as a design and communication element. Students will form an understanding of the fundamental rules related to type design, such as kerning and leading. The primary focus of the instruction will be on how type is used in contemporary graphic design applications, but some practice in hand lettering will be included as well as a study of the how various type styles are designed. Also included is a study of font management, postscript, and handling of digital files. Students will solve a variety of problems commonly encountered in the production of a body of type for both print and electronic output.

GRA1721C WEB PROGRAMMING (3)
The student will learn the basics of creating a web site and will progress through the processes of analysis, design, development and implementation of complete web sites using HTML language with the text editors and WYSIWYG web editors. This course includes: introduction to the WWW, Web Programming with HTML, layout and structure of web sites, hyperlinks, multimedia, forms, frames, testing, maintenance and uploading web sites to servers.

GRA2134C ADVANCED MULTIMEDIA ANIMATION (3)
Continuation of Multimedia Animation to create advanced 2-dimensional animations with Lingo scripting (or other language) to be included in multimedia applications. Students learn advanced techniques which include the following: programming concepts in Lingo (or other language), improved hypertext and buttons, using lists and properties, file input and output, debugging, creating object-oriented movies in window programming, creating scrolling graphic and text, menu bars, and custom cursors, controlling digital video and MIDI, creating games, and understanding Xtras and NetLingo and Shocking files for Internet use. Students will create advanced animations using scripts for output to kiosks, games, CDs, and the Internet.

GRA2142C WEB DESIGN (3)
Intended for Art/Graphic Design majors who will apply design principles toward delivering images for the world wide web. The student will develop an understanding of how the internet is used by commerce, how it functions in the marketplace, and how Graphic Designers apply their skills to a digital media. The student will create web pages/sites,
coordinate web structures, and learn basic web-site management techniques.  
Prerequisite: ART1201C ART1300C GRA2190C  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=50.00

GRA2143C WEB PUBLISHING II (3)  
This is an advanced graphics design course in designing web pages. Students will learn to create web pages using HTML focusing on interactivity and usability. Students will work with text, links, color, and images for Internet delivery. Students will also learn and use related technology: JavaScript and Cascading Style Sheets. The class is portfolio driven.  
Prerequisite: GRA2841C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

GRA2152C ADVANCED DIGITAL IMAGE DESIGN (3)  
This is an advanced level course where students will solve complex digital imaging, illustration and compositing problems that require both 2D and 3D special affects. Students will be introduced to the fundamentals of creating and animating 3D images using 3D animation and modeling software packages, including creating objects, building models, animating, creating a scene, applying textures and paint, setting lights and cameras and rendering the final animation. Projects will satisfy the current industry client base which demands that a graphic artist conceive a given graphic idea which can be produced in a variety of print outputs, as well as output for the Web, TV and multimedia.  
The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.  
Prerequisite: GRA1151C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

GRA2160C MULTIMEDIA ANIMATION (3)  
Create 2-dimensional animations to be included in multimedia titles. Students learn the windows in the software; how objects can create the illusion of movement; how to auto-animate text; how to coordinate movement, placement, and timing of objects; how to add sound to animation; how to create an animation of a live object, backgrounds, and basic interactions. Students are introduced to a scripting language to coordinate flow of information.  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

GRA2161C ADVANCED IMAGE EDITING (3)  
The student will learn the advanced image processing techniques to prepare images for various output venues for web and multimedia. Multimedia and web developers use sophisticated graphic software (Fireworks and Photoshop with ImageReady or other similar software) to create interactive and stunning visuals that are easily integrated into dynamic multimedia and web pages. Students will learn how to create graphics with vector and bitmap images, apply special effects, build buttons, rollovers, animated gifs, image maps, compare graphic formats, optimize web graphics & palettes. Projects focus on resolution, color management including palettes and bit depth, optimization, image and texture creation, alpha channels for compositing, and special effects. Industry standard software will be used including Photoshop and Fireworks.  
Prerequisite: GRA1131C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

GRA2162C INTRODUCTION TO 3D ANIMATION (3)  
This course is an introductory level course in 3D animation. Students create complex animations which are carefully planned through storyboarding and cinematic techniques.  
Students will complete 3D animation projects and follow the 3D animation process, practicing and applying various features of the 3D animation software package.  
Prerequisite: GRA2171C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

GRA2171C ADVERTISING AND PROMOTIONAL DESIGN (3)  
This course will introduce advertising and marketing principles. Students will apply design and technical skills introduced in foundation level classes. The focus will be on solving real-world advertising and promotional problems, carrying projects from initial concept to final presentation of the product. Projects will satisfy the current industry client base which demands that a graphic artist conceive a given graphic idea for production in a variety of print outputs, as well as output for the Web, TV and multimedia.  
The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.  
Prerequisite: GRA1151C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

GRA2181C GRAPHIC DESIGN PORTFOLIO (2)  
This course is designed to develop students’ strategies for portfolio presentations to employers and clients, demonstrating their critical analysis skills, technical ability and visual expertise. Students will assemble and evaluate their work in order to develop professional graphic design portfolios. Students will also learn to develop alternate visual strategies as they apply to portfolio requirements set by industry standards. Industry will be consulted on a periodic basis to assist in the identification of portfolio requirements.  
Prerequisite: GRA2152C  
Lec Hrs=24 Lab Hrs=24 Oth Hrs=0 Fees=25.00

GRA2185C ART DIRECTION AND FINAL PRODUCTION (3)  
This course is an advanced level course that forms an integral part of the final skills needed to complete the Graphic Design Technology A.S. Degree requirements. It is intended to support the portfolio and internship courses by providing practice in advanced concept formulation and art direction strategies and practical experience in production of their portfolio at a service bureau.  
Prerequisite: GRA1120C GRA1151C PGY1801C  
Corequisite: GRA2181C  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=25.00

GRA2190C INTRODUCTION TO GRAPHIC DESIGN (4)  
This course is an introduction to the materials, techniques and production methods used in the Graphic Arts, pointing out how various layout techniques lead to a printed piece. Intended for Art majors who wish to pursue a BFA degree in Graphic Design.  
Prerequisite: ART1201C ART1300C  
Lec Hrs=32 Lab Hrs=64 Oth Hrs=0 Fees=20.00

GRA2191C GRAPHIC DESIGN II (4)  
Production studio techniques for graphic design, featuring preparation of art for reproduction using the computer as a graphic problem-solving tool, combining test, image, and digital design. Intended for art majors who wish to pursue a BFA degree in Graphic Design or want to seek entry employment.
GRA2403 PRINCIPLES OF PROJECT MANAGEMENT (3)
Students in this course will gain a comprehensive understanding of the skills required of project managers. This includes software presentation training, instruction in monitoring and controlling projects, procurement planning techniques, and an introduction to using project management software.
Lec Hrs=32 Lab Hrs=64 Oth Hrs=0 Fees=20.00
Prerequisite: GRA2190C

GRA2404C PRINCIPLES OF PROJECT MANAGEMENT II (3)
Students in this course will gain a comprehensive understanding of the use of project management software to: organize a project, schedule milestones, schedule tasks in the appropriate sequences, assign resources and costs to tasks, prepare professional reports, and track/analyze a project's progress.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00
Prerequisite: GRA2403

GRA2723C ADVANCED WEB SITE DESIGN (3)
This course allows developers, programmers, and designers to visually create and edit data-driven Web sites for multiple server platforms. Developers will use industry standard software (and/or other data-driven applications) to conceptualize and develop dynamic Web sites. Students should have complete knowledge of graphics, HTML and database management before taking this course.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

GRA2724C ADVANCED WEB ANIMATION (3)
This course will teach students to write ActionScript that can be executed on any computer running compatible software. These programs will be created using Object-Based Scripting Language and designed to interact over the internet or any other similar network with an appropriate Web Browser. Students will learn ActionScript structure and syntax, how to interact with environment variables, use event handlers, functions, and methods and receive an overview of working with Object-Oriented methodologies. Students will conceptualize and develop interactive websites and games using the full features of ActionScript.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

GRA2841C WEB PUBLISHING (3)
This course is a basic course in designing web pages, web site architecture and navigation. Students will be instructed in the most current applications used for production of web pages. Proper coding of the pages using current web tools, with consideration of various platforms, will be provided. A special emphasis will be placed on interactivity design and page layout, and proper use of typography and images for delivery on the Internet. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00
Prerequisite: PGY1801C

GRA2940C GRAPHIC DESIGN INTERNSHIP (3)
This course is a culmination of the Graphic Design Technology two year A.S. Program. Students will learn the necessary business protocol and job interviewing skills that will place them in an internship situation. The intern will work in a studio setting, e.g., advertising agency, graphic design department of a small or large company, commercial printing business, etc. The experience will involve all duties usually associated with the current graphic design profession. Interns are expected to complete project assignments from start to finish with minimal guidance from the sponsoring entity/establishment.
Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=45.00
Prerequisite: GRA2152C GRA2181C

HBR1120 BEGINNING HEBREW I (4)
Fundamental of speaking and understanding reading and writing. Classroom practice and exercises supplemented by language and laboratory sessions designed to develop confidence and a basic proficiency in Modern Hebrew. Student is expected to continue with HBR1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

HBR1121 BEGINNING HEBREW II (4)
Continuation of Hebrew 1120. Further development of the basic skills. Selected readings in the textbook. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

HBR2201 INTERMEDIATE HEBREW II (3)
Review of all basic grammar principles. Emphasis on relative fluency in speaking. Comprehensive reading and writing skills sharpened. Limited cultural and historical information studied in the target language. This course completes the intermediate college level course in modern Hebrew. Meets Areas 2B and 8 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
Prerequisite: HBR2220

HBR2220 INTERMEDIATE HEBREW I (4)
Continuation in the instruction of the most salient grammatical principles plus introduction of new idiomatic material. Writings and selected readings in Modern Hebrew prose. Conversation at a more advanced level and pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: HBR1121
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

HCP0110 BASIC NURSING I NURSING ASSISTANT (4)
BASIC NURSING I NURSING ASSISTANT (PRE-CONVERSION)
Lec Hrs=40 Lab Hrs=80 Oth Hrs=0 Fees=0.00
Prerequisite: HCP0130

HCP0110C BASIC NURSING I NURSING ASSISTANT (4)
This course is designed to prepare the student for employment as a nursing assistant. The student will perform basic nursing skills in both the college lab and clinical area. Didactic instruction will be taught concurrently. Instructor's approval or
Prerequisite: HCP0130
Lec Hrs=40 Lab Hrs=0 Oth Hrs=80 Fees=72.05

HCP0130 HEALTH CAREERS CORE CURRICULUM
The Health Careers Core Curriculum course presents basic knowledge & skills for students majoring in a health science degree program. The course introduces students to a health care delivery system, the health occupations, and teaches basic medical and employability skills.

Lec Hrs=45 Lab Hrs=30 Oth Hrs=0 Fees=100.00

HFT2210 SUPERVISORY DEVELOPMENT (3)
This course provides training on the art of supervising employees and the development of sound relations with other departments. It covers methods of controlling costs, development of cost consciousness, cost improvements, techniques in the supervision of employees, and developing sound relations with other departments.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=2.00

HFT1700 INTRODUCTION TO TOURISM INDUSTRIES (3)
This course provides a survey of the history, organization, problems, opportunities and future trends in the areas which comprise the travel and tourism industries. Emphasis is placed on the economic benefits and social implications of tourism. This course is beneficial to the purchaser of tourism services as well as the marketer.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT941 OPERATIONS AND SERVICE PRACTICUM (3)
This course requires practical work experience or participation in formalized internship program in related disciplines in a approved segment of the hospitality/restaurant/travel industries and is coordinated with a weekly seminar. Faculty makes regular appraisals of the learning progress through on-site visitations and consultation with supervisors. Emphasis is placed on how the job relates to the satisfaction of customer needs. In addition, the essence of the service transaction offered by the organization is analyzed, including both the tangible and intangible components.

Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2220 ORGANIZATION AND PERSONNEL MANAGEMENT (3)
This course covers the organization, supervision and direction of operations in the hospitality/restaurant/travel industries. It analyzes the internal organizational structure and its administrative roles and functions. The course considers techniques of employee training, promotions, job specifications, discipline and morale. The course borrows from the behavioral sciences by emphasizing the human dimensions of management.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2250 HOTEL MANAGEMENT (3)
This course provides a study of the growth and progress of the hotel industry and how hotels are developed, organized, financed and operated.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2410 FRONT OFFICE SYSTEMS AND PROCEDURES (3)
This course provides basic training in front office procedures, and focuses on the rooms division of a hotel: front office, housekeeping, guest service, engineering, and security/loss prevention.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2460 FINANCIAL MANAGEMENT (3)
A study of accounting systems for the hospitality/restaurant/travel industries with emphasis on operating statistics and financial reports. The utilization of financial statements by management is studied.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2500 MARKETING (3)
This course emphasizes how to sell and promote the services the hospitality/restaurant/travel industries offer guests. It covers the development of business through personal selling, media advertising and publicity. In addition, the operations of a sales and convention department are studied.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2511 CONVENTION AND GROUP BUSINESS MARKETING (3)
This course covers the functions of the convention organizer and tour wholesaler in relation to the suppliers of travel and hospitality services. The responsibilities of each organization in the marketing of facilities and activities to organizers, retailers, and/or consumers are emphasized.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2600 HOSPITALITY LAW (3)
This course provides a study of the nature and function of our legal system as applied to hospitality, restaurant and travel operations. Operator/guest relationships, contracts, torts, civil rights and insurable risks are emphasized.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2721 TRAVEL AGENCY MANAGEMENT & OPERATIO (3)
This course provides familiarization with travel agency operations including the selling, transporting, storing, advertising, planning, and management of travel services. The course also provides hands-on training in computerized reservations (SABRE) and keyboarding, and incorporates key aspects of managing corporate travel.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2730 TOUR PACKAGING (3)
This course provides a study of how to create, develop and sell package tours. Methods of customizing tours through the proper matching of destinations with market segments are covered.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HFT2942 MANAGEMENT AND CONTROL PRACTICUM (3)
This course requires practical work experience or participation in a formalized internship program in related disciplines in an approved segment of the...
HIM1253 CODING: BEGINNING (4)
This beginning course is designed to provide an introduction into basic coding and coding guidelines. The course will focus on defining basic coding definitions, review of coding guidelines, introduction to billing methodology and application of codes to specific basic coding assignments using ICD, CPT, and HCPCS.
Prerequisite: BSC1086 BSC1086L HIM1435
Corequisite: HIM1260
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM1260 HEALTH INSURANCE BILLING (2)
This course covers federal, state, and private health insurance plans including managed care. Topics include: the processing cycle of health insurance claims, completion of the 1500 billing form, reimbursement methodologies, introduction to diagnosis and procedure coding systems, and legal and ethical issues. Upon completion, students should be able to apply billing principles to accurately and ethically receive appropriate reimbursement for services.
Prerequisite: HIM1300 HSC1531
Corequisite: HIM1253
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM1300 HEALTHCARE DELIVERY SYSTEMS (3)
This course is an introduction to the historical development, current structure, operation, financing, and future directions of the major components of the U.S. health care delivery system. A population perspective is used. Upon completion, students should be able to identify the major components, issues and trends in the U.S. health care delivery system.
Prerequisite: BSC1085 BSC1085L
Corequisite: HIM1000 HIM1435
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM1435 PATHOPHYSIOLOGY (3)
This course covers the nature, cause, and treatment of human diseases including the diagnostic and therapeutic modalities used for each. Typical health record data is interpreted. Basic Pharmacological management of various diseases are presented. Upon completion, students should be able to demonstrate an understanding of the diagnosis, management and documentation of human diseases.
Prerequisite: BSC1085 BSC1085L HSC1531
Corequisite: HIM1300
Pre or Corequisite: BSC1086 BSC1086L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=35.00

HIM2214 HEALTH STATISTICS (2)
This course will review the history of the electronic health record and current trends in healthcare information applications such as clinical information systems, administrative information systems, and management support systems. Students will explore the transition from a paper-based health record to an electronic health record and associated issues.
Prerequisite: HIM1800
Corequisite: HIM2012 HIM2652
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM2012 LAW AND ETHICS (2)
This course focuses on the impact of legal and ethical issues in health information management. Topics include an overview of the branches of government, tort law; confidentiality and release of information, subpoenaed information; record retention and security; information consent; liability; patient rights; negligence and malpractice; and ethics. Upon completion, students should be able to comply with legal requirements and be aware of legislative and regulatory trends.
Prerequisite: HIM1110 HIM1300
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=50.45

HIM2112 ELECTRONIC MEDICAL RECORD AND TECHN (2)
This course covers the collection, compilation, analysis, verification, and display of health care statistics. Topics include: the use of statistics, basic statistical principles, commonly computed rates, vital statistics, uniform reporting...
HIM2232 CODING: INTERMEDIATE (3)
This intermediate coding course is designed to build onto the HIM2153 Beginning Coding course by enhancing the student’s quality of coding and understanding of sequencing for ICD-9-CM and CPT codes. DRG logic, APCs, RBRVs, PPS and other reimbursement strategies will be researched and discussed. Coding and billing compliance will be discussed.
Prerequisite: BSC1086 BSC1086L HIM2153
Corequisite: HIM2214
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM2234 CODING: ADVANCED (3)
This is an advanced coding course giving the student extensive 'hands-on' experience in coding complex and sophisticated cases from inpatient, outpatient and physician office settings typically handled by the coding specialist on the job. Emphasis will be placed on quality of specific coding, sequencing, coding compliance and billing methodology. Students will be expected to code assigned cases utilizing the ICD-9-CM and CPT coding manuals and automated coder/groupers. All coding exercises will be timed, conducted and verified in the classroom.
Prerequisite: BSC1086 BSC1086L HIM2232
Corequisite: HIM2810
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=35.00

HIM2500 PERFORMANCE IMPROVEMENT (2)
This course is an introduction to the principles of performance improvement and quality management in healthcare. Topics include: clinical quality improvement; utilization management; risk management; medical staff credentialing and peer review; accreditation standards; laws and regulations; tools for data collection, analysis, and display; and the role of the HIM department. Upon completion, students should be able to apply performance improvement techniques; collect, analyze, and display data; and support a range of quality management activities.
Prerequisite: HIM2012
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM2512 SUPERVISION & ORGANIZATIONAL LIFE (2)
This course covers management and supervision principles as they are applied to healthcare settings. A study of the aspects and techniques of planning, organizing, motivating, and controlling is presented with emphasis on communication, collaboration, and decision making.
Prerequisite: HIM2012
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM2652 HEALTH INFORMATION SYSTEMS (3)
This course is an introduction to information technology related to healthcare and the automated tools and techniques for collecting, storing, and retrieving data. Topics include: system analysis, design, and security; file structure, networking, telecommunications, document imaging, medical informatics, the electronic health record, and implementation issues. Activities include HIM computer applications. Upon completion, students should be able to assist in the design, implementation, evaluation, and maintenance of automated information systems in healthcare.
Prerequisite: CGS1100 HIM1800
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIM2810 PROFESSIONAL PRACTICE 2 (2)
This class is a continuation of the supervised professional practice experience in a health information management department. Emphasis is on health information systems, coding, and law and ethics. Upon completion, students should be able to apply health information theory to practice. Each student will be responsible for completion of a Professional Practice II Workbook.
Prerequisite: HIM1800 HIM2012 HIM2232
Corequisite: HIM2234
Lec Hrs=0 Lab Hrs=0 Oth Hrs=64 Fees=20.05

HIM2930 TRANSITION SEMINAR (1)
This course will focus on assisting the student to begin integration into the health information management field by exploring career options, developing a professional development plan, creating a resume, exploring credentialing requirements, and preparing the student to leave the classroom and enter the workplace. Activities conducted in the classroom will assist the student to enter the workplace as a team player with a positive attitude and team communication skills. The course will introduce the student to the preparation needed to sit for the RHIA National Examination by AHIMA.
Prerequisite: HIM2234 HIM2810
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIS2939 SPECIAL TOPICS IN HISTORY (3)
The content of this course will vary, to be determined by the instructor of record. The course is intended to offer students the opportunity for in-depth study of specialized areas and topics in history.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIS2950 HISTORY TRAVEL STUDY (1)
A combination of classroom preparation plus foreign travel. Variable content depending on countries to be visited. Historical background and travel preparation will be included. Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIS2955 HISTORY STUDY ABROAD (3)
A combination of classroom preparation plus foreign travel. Variable content depending on countries visited. Historical background and travel preparation will be included. Prerequisite: instructor’s approval.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HIS2956 HISTORY TRAVEL STUDY (6)
The same general description applies to this course as is given to the History Study Abroad offered for three semester hours. However, a longer itinerary to be visited will necessitate more extensive course requirements. Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HLP1081 TOTAL WELLNESS (2)
A course primarily designed and organized for students of all ages to optimize their wellness in each of the following six interrelated dimensions: Physical Wellness, Intellectual Wellness, Emotional Wellness, Spiritual Wellness, Interpersonal/Social Wellness, and Environmental/Planetary Wellness. From the information obtained in the course, students will identify how to apply this information to lead
HSC1949 HEALTH SERVICE WORK EXPERIENCE
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
This course is an advanced extension of the wellness track classes. It reviews exercise principles and offers an opportunity for pre-testing to aid in Personal Program Development and post-testing for improvement evaluation. An individualized approach is used in helping class members to develop and implement a personal program. Prerequisites: (any of the following): HLP1081, PEM1116, PEM1131, PEM1141, PEM1181, PEN1171, HSC1101C or instructor's approval.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

HSC1101C INTRODUCTION TO HEALTHFUL LIVING
Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=2.00
This course provides a personalized introduction to wellness; wellness components of flexibility, muscular strength/endurance, cardiovascular wellness, and body composition; nutrition, weight management, stress management, and how students can apply this information to ensure healthful living. Opportunities are provided to learn updated information on coronary heart disease, cancer, and HIV/AIDS to assess one's personal wellness status through health related fitness and nutrition assessments.
Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=5.00

HSC1130 CONTEMPORARY HEALTH ISSUES
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
Students will investigate, discuss and make decisions regarding contemporary health issues such as sexuality, HIV/AIDS, STDs, drugs and alcohol, self esteem/depression/suicide, consumerism, lack of wellness, and specific current health issues.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HSC1531 MEDICAL TERMINOLOGY
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
Provides a broad survey of the language of medicine in the health science professions. Emphasis is placed on the building of medical terms from word parts. Pronunciation is practiced utilizing a CD provided with the textbook.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HSC1949 HEALTH SERVICE WORK EXPERIENCE
Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=2.00
Students with a postsecondary adult vocational certificate program may receive credit for classroom and work experience based upon departmental review. Credits may apply only to students seeking an A.S. degree in Health Service Management.
Lec Hrs=0 Lab Hrs=384 Oth Hrs=0 Fees=0.00

HSC2100 PERSONAL AND COMMUNITY HEALTH
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
This study of health problems relating to the individual community including mental health, physical fitness, nutrition, the use of tobacco, alcohol and drugs, marriage and family living, safety, and the study of diseases. Elective credit only.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HSC2400 FIRST AID AND SAFETY
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
Accepted practices and training in first aid care of the injured and medical self help for survival in emergencies. Course includes suggested procedures effective until adequate medical assistance can be obtained. Principles of safety problems and accident prevention are included. Elective credit only.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HSC2660 COMMUNICATION FOR INTERDISCIPLINARY
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00
An introductory course for healthcare professionals working with interdisciplinary teams. Students will study the dynamics of interdisciplinary teams, quality customer relations, ethical and legal considerations and therapeutic communication skills. Note: Registration limited to students currently enrolled in the second year of an allied health program.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HUM2700 HUMANITIES TRAVEL STUDY
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
An examination of the styles and influences of Music, Art, Theatre, Religion, Literature, and Philosophy in selected geographical areas. Course combines classroom preparation and foreign travel.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HUM2701 HUMANITIES TRAVEL STUDY
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00
The same general description applies to this course as is given to the Humanities Travel Study offered for three semester hours. However, a longer itinerary of the location(s) to be visited will necessitate more extensive course requirements.
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

HUNI202 ESSENTIALS OF NUTRITION & DIET THER
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=12.00
A study of nutritional science the nutrient, interrelationships and the nutritional needs of persons at various stages of life cycle. Particular emphasis will be placed on diet therapy in the modification of disease process. This course is open to all allied health students only or with permission of the instructor. 3 hrs. lec. Term I, II, and III.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=12.00

IDH2121 HONORS INTERDISCIPLINARY STUDIES IN
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
The Honors Interdisciplinary Studies Seminar is the capstone course in the Honors Program. In this course Honors students have the opportunity to integrate critical and analytical skills that will enable them to evaluate diverse ideas, information and research from an interdisciplinary perspective. The study topic will vary and will be structured around a specific theme; such as time period, an event or series of
events, or a broad cultural concept. Course content will emphasize the relationships of knowledge in any combination of the following discipline groups: Mathematics/Science, Social Science and Behavioral Science and Liberal Arts. Emphasis will be placed on interdisciplinary activities in composition, communication, technology and research. Activities may include written projects, group projects, presentations, community service, research and/or field trips. Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

IDS2931 INTERDISCIPLINARY LEADERSHIP STUDIES  (3)
This seminar focuses on the refinement of leadership skills, provides an enhanced leadership and group dynamics theory and will assist the student in developing a personal philosophy of leadership and awareness of the moral and ethical responsibilities of leadership. Topics include decision making, goal setting, building trust, empowering others, conflict resolution, managing change, team building, and servant leadership. Writing and reading from classic works in literature, contemporary and multi-cultural writing, and experiential learning exercises with current leadership theories and practices. Includes a service learning component, a shadowing experience, and a journal that highlights the students' entire leadership experience, both in and out of class, consisting of written responses to each of the classic works and contemporary reading assignments, specific critical analyses of films and other assignments as given in the class. Prerequisite: ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

IND1022 PRINCIPLES OF INTERIOR DESIGN  (3)
This introductory studio course examines the role of the interior designer, the psychology of space, color and client interactions. Emphasis is placed on exploration of the elements and principles of basic design and their application in the process of shaping and defining interior space and development of a basis for critical design analysis. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

IND1229C INTERIOR DESIGN CONSTRUCTION DOCUMENTATION  (3)
In this course students learn to read and develop drawings necessary for the construction of interior projects. Emphasis is placed on the proper use of line weights, graphic symbols, specification, notation, dimensioning and cross referencing of documentation to complement architectural construction documentation. Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=40.00

IND1429 INTERIOR MATERIALS  (3)
In this course students will survey the properties and uses of interior finish materials, both textile and non-textile, and their application in residential and commercial installations. Focus is placed on industry practice is selection and fabrication of interior surfaces and furniture elements. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

IND1607C ERGONOMIC ENVIRONMENTS  (3)
This course provides an in-depth analysis of ergonomic planning principles in special purpose spaces and for people with special needs. Pre or Corequisite: IND1022
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=40.00

IND2210C INTERIOR DESIGN STUDIO  (3)
In this course students will apply design and communication skills to create and present a complete design for a specific client. Selection of furnishings and cabinetry as well as fabrics/finishes are developed and applied to the overall design scheme. Prerequisite: IND1020 IND1607C IND1229C
Pre or Corequisite: IND1429
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=40.00

IND2230C DESIGN DEVELOPMENT  (3)
In this course the student will develop a comprehensive set of working drawings for interior design project and become familiar with building codes as they relate to construction drawings using the computer as a drafting tool. Emphasis will be placed on development of complete documentation of the design solution as appropriate to communicate specification and fabrication information to the construction industry. Prerequisite: IND1022 IND1607C IND1229C IND1429
Pre or Corequisite: IND2210C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=40.00

IND2501 INTERIOR DESIGN INDUSTRY PRACTICES  (2)
This course familiarizes students with the everyday business, legal and financial considerations of the design industry. Course covers operations, designer/client/vendor/professional consultant/contractor relationships; government and statutory rules and regulations, contract analysis, insurance, fees, and public relations. Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

IND2945 INTERNSHIPS IN DESIGN INDUSTRY  (1)
The course is a culmination of the Interior Design Technology Advanced Technical Certificate. Students will work in two separate positions in the interior design industry, e.g. professional designer's office, kitchen or bath design firm, retail sales of interior design elements, general contractor's interior design services division, and/or design element fabricator, etc. Pre or Corequisite: IND2501
Lec Hrs=16 Lab Hrs=256 Oth Hrs=0 Fees=0.00

INP1390 HUMAN RELATIONS IN BUSINESS AND IND  (3)
Introductory course to the study of human behavior emphasizing its practical applications in business and industry. It introduces the student to personal and social adjustment mechanisms as a means of understanding the behavior of one's self and of other. Also introduces the student to current psychological applications in the fields of testing, advertising, selling, market research, morale, personnel work, employee selection and training, and supervisory practices. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

INR2002 INTRODUCTION TO INTERNATIONAL RELATIONS  (3)
A consideration of the concepts of sovereignty, power, security; national interest in the determination of foreign policy; the United Nations and its functions and limitations; study of the employment of these concepts in analysis of foreign policy developments of leading nations and the emerging nations. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ISS2949 CO OP WORK EXPERIENCE  (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**ITA1120 ELEMENTARY ITALIAN I**

Fundamentals of speaking, understanding, reading, and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with ITA1121. Meets Area 8 general education requirements for the A.A. degree. Special fee charged. 

Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**ITA1121 ELEMENTARY ITALIAN II**

Continuation of ITA1120. Further development of the basic skills. Selected readings. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Prerequisite: ITA1120. 

Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**JOU1100 BASIC REPORTING**

Pre-professional course providing fundamental instruction and practice in writing as a basis for all upper division courses in journalism. Includes writing in the news style, leads, defining news, types of stories, organization of stories, policy and libel. Prerequisite: Permission of instructor or Prerequisite: ENC1101. 

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**JOU1207L MAGAZINE PRODUCTION**

Course provides instruction and practical experience in the philosophical and technical aspects of magazine production, including printing processes, copy setting, picture editing, graphic design, and camera ready layout techniques. 

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU1400L NEWSPAPER PRACTICUM I**

Practical application of news writing and editing principles through work with college media. Instructor's approval or Pre or Prerequisite: JOU1100. 

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU1400L NEWSPAPER PRACTICUM II**

Continuation of JOU1400L. Students may take JOU1400L and JOU1401L during the same term. Instructor's approval or Pre or Corequisite: JOU1400L. 

Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00

**JOU1402L NEWSPAPER PRACTICUM III**

Continuation of JOU1421L. Practical application of newspaper principles: copy editing, page layout, rypsetting, headline writing, picture cropping, rewriting, copy preparation through work with the college newspaper. Instructor's approval or Prerequisite: JOU1400L, JOU2200. 

Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00

**JOU1440L MAGAZINE PRACTICUM I**

Practical application of magazine production, magazine writing, or magazine editing principles through work with college magazine media or internship with community media 

Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

under academic supervision. Prerequisite: Instructor approval or Prerequisite: JOU1207L. 

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU1441L MAGAZINE PRACTICUM II**

Continuation of JOU1440L. Instructor's approval or Prerequisite: JOU1440L. 

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU2200 NEWSPAPER EDITING AND MAKEUP**

Course provides instruction and practical experience in copy editing, rewriting, headline writing, page design for both makeup copy and advertising, picture cropping and scaling, cutlines, and an introduction to desktop publishing. Instructor's approval or Prerequisite: JOU1100. 

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU2203 MAGAZINE EDITING**

Course provides instruction and practical experience in editing a magazine including human relations, expertise in article writing, copy and picture editing, audience analysis, and legal and economic aspects of editing. Prerequisite: JOU1100. 

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=0.00

**JOU2949 CO OP WORK EXP**

A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval. 

Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**JST1500 SURVEY OF JEWISH CULTURE**

A survey of the development of Jewish culture through a study of the concepts, values, traditions and rituals of Judaism. 

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**JST1700 THE HOLOCAUST**

The historical, political, literary, religious, and philosophical dimensions of the Holocaust. 

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**JST2400 SURVEY OF JEWISH CIVILIZATION**

A survey of the history of Jewish civilization beginning with the origins of the Hebrews, through early Christianity and the Renaissance, to the State of Israel. 

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**JST2815 HISTORY OF MODERN ISRAEL**

This course will begin with the period of the Enlightenment for the Jewish people and will follow the historical development which led to the development of the State of Israel. 

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**LAH1004 THE HISTORY OF THE TWO AMERICAS**

The North and South America story, from the day of the Indians through the conquest and colonization of the whites to the beginning of today's revolutions. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets
Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LAH1005 THE HISTORY OF THE TWO AMERICAS (3)
The problems of today in the Western hemisphere, how they
developed, why they changed and what will become of them
with emphasis on inter-American relations in the areas of
politics, economy and social structure. Meets Areas 3A and 8
general education requirements for the A.A. degree. Meets
Areas 3 or 5 general education requirements for the A.S.
degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LEI1000 INTRODUCTION TO RECREATION (3)
This course acquaints the individual with the recreation
organization and opportunities for leaders in the field.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LEI1260 INTRODUCTION TO OUTDOOR RECREATION (3)
This course will introduce students to the career
opportunities available in the field of outdoor recreation/adventure education.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LEI1700 RECREATION FOR SPECIAL GROUPS (3)
An overview of the characteristics and needs of members of
special groups and how to plan and implement recreational
activities appropriate for each group.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LEI2401 RECREATION MANAGEMENT (3)
A course primarily designed for the student to learn about the
different aspects of managing recreational programs and
events. The student will be exposed to the many and varied
needs of developing a quality program or event.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LEI273IC RECREATION THERAPY (2)
An overview of various therapies that can be useful in a
recreational setting.
Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=10.00

LEI2861 RECREATION TECHNOLOGY AND EQUIPMENT (3)
The rapid growth of technology and sophistication of
equipment, necessitate the recreation specialist to keep
abreast of developments in the market place. This course is
designed to expose students to hardware, software, and
equipment that are commonly used in centers across the
nation to attract participants in recreational activities.
Opportunities are provided for a hands-on learning experience
in this technology and equipment.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIN1670 ENGLISH GRAMMAR (3)
A course designed for those desiring more intensive work in
grammar and syntax than composition courses provide.
Includes the study of grammatical principles and theory and
application of those principles in student writing. May be
taken by public school teachers for recertification. Special fee
charged.
Prerequisite: ENC0021
Lec Hrs=48 Lab Hrs=8 Oth Hrs=0 Fees=5.00

LIT1171 JEWISH LITERATURE I: 1800 TO THE H (3)
A study of selected works from the Jewish Enlightenment to
1933. Analyzes the major characteristics of worldwide Jewish
literary works. Includes such authors as Sholom Aleichem,
Agnon, Bialik, Cahan, and H. Roth. May be used for study
abroad.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT1172 JEWISH LITERATURE II: HOLOCAUST TO (3)
A study of selected works from the Holocaust to the present.
Analyzes the major characteristics of worldwide modern
Jewish and Israeli literature. Includes such authors as Weisel,
Malamud, Bellow, P. Roth, Ozick, Singer, Oz, Yehoshua and
Appelfeld. May be used for study abroad.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT1370 THE BIBLE AS LITERATURE (3)
A study of literary forms found in the Bible, such as history,
biography, short story, parable and lyric poetry. Basic literary
analysis of selected portions of the Bible.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2020 INTRODUCTION TO THE SHORT STORY (3)
A discussion of the themes in short stories from many
countries of the world. May include such authors as Poe,
Borges, Camus, Chekhov, Fuentes, Mishima, O'Connor,
Bambara, Walker, Kafka, and De Maupassant. Meets Areas
2A and 8 general education requirements for the A.A. degree.
Meets Areas 2 or 5 general education requirements for the
A.S. and A.A.S. degrees.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2030 GREAT IDEAS IN POETRY (3)
A view of poetry as an exploration into the depth of human
experience. Audio-visual materials, guest speakers, and field
trips may be utilized. Students read and discuss the aesthetics
of poetry. Meets Area 2A general education requirements for
the A.A. degree. Meets Areas 2 or 5 general education
requirements for the A.S. degree.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2110 WORLD LIT THROUGH RENAISSANCE (3)
A survey of selected masterpieces of world literature before
1610. Includes excerpts from the Old and New Testaments
and authors such as Sappho, Sophocles, Ovid, Confucius,
Lao Tzu, Dante, Boccaccio, Aesop, Homer and Shakespeare.
Meets Areas 2A and 8 general education requirements for the
A.A. degree. Meets Areas 2 or 5 general education
requirements for the A.S. and A.A.S. degrees.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2120 WORLD LIT RENAISSANCE TO PRESENT (3)
A survey of selected masterpieces of world literature since
1610. Includes such authors as Rousseau, Franklin,
Wollstonecraft, Tolstoy, Lessing, Camus, Achebe, Yeats,
Neruda, Voltaire and Marquez. Meets Areas 2A and 8 general
education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. and A.A.S.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2310 LITERATURE OF THE SUPERNATURAL & SC (3)
An introduction to the literature of science fiction, fantasy, and the supernatural. Includes authors such as Stoker, Lovecraft, Asimov, Bradbury and Tolkien. Meets Area 2A general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2341 MYSTERY FICTION (3)
A discussion of mystery fiction by investigation of the plot, characters, settings, styles, motifs, and development of the most representative authors of detective, police, procedural, spy, and mystery thriller fiction. Includes authors such as Poe, Christie, Doyle, and Hammett.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2510 MALE FEMALE IMAGES IN LITERATURE (3)
An exploration of the ways literature represents and perpetuates sex roles and stereotypes. Readings include drama, short stories, novels, and poetry from classical to contemporary.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2935 SEMINAR IN LITERATURE (3)
Literary topics of special interest to students. Course offerings may be in such areas as western literature, the study of the greater novels, or ethnic literature. Class discussions may also include films.
Prerequisite: Eligibility for ENC1101
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

LIT2953 TRAVEL SEMINAR IN LITERATURE (3)
A combination of classroom preparation plus travel. Variable content depending on area to be visited. Prerequisite: Eligibility for ENC1101 and instructor's approval
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC1105 COLLEGE ALGEBRA (3)
A college algebra course containing topics such as solving, graphing and applying linear and quadratic equations and inequalities; exponential and logarithmic properties; linear, quadratic, rational, absolute value, and square root functions; operations, compositions, and inverses of functions; and systems of equations and inequalities, all with applications throughout the course. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

MAC114 TRIGONOMETRY (3)
This course, in conjunction with MAC1140, is designed to prepare the student for the study of calculus. Topics include a functional approach to trigonometry; trigonometric identities; solving triangles; DeMoivre's Theorem; vectors; polar coordinates; and parametric equations. A graphing calculator may be required.

Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAC1105
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC1140 PRE CALCULUS ALGEBRA (3)
This course, in conjunction with MAC1114, is designed to prepare the student for the study of calculus. Topics include sequences; series; mathematical induction; matrices; determinants; and systems of equations. Also included are polynomial, rational, exponential, and logarithmic functions and equations; and polynomial and rational inequalities. Functions and graphs are emphasized. A graphing calculator may be required. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAC1105
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC1147 PRECALCULUS ALGEBRA AND TRIGONOMETRY (5)
This course is designed to satisfy the dual requirements of MAC1114 and MAC1140, thus preparing the student for the study of calculus. In this course the student will study various function families (e.g. polynomial, exponential, logarithmic, trigonometric) from both analytic and graphical viewpoints, and will use them to model real-life situations. The student will be exposed to additional topics that will deepen their mathematical understanding, including systems, augmented, matrices, sequences and series, and parametric functions. A graphing calculator may be required. Recommendation of the Mathematics Department or at least a grade of 'B' in the prerequisite course is required.
Prerequisite: MAC1105
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC2233 CALCULUS FOR BUSINESS, SOCIAL AND LIFE (3)
This is a general education course which includes the college-level skills of calculus such as: functions, graphs, limits, differentiation, integration, average and instantaneous rates of change, and other applications. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAC1105
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC2311 CALCULUS AND ANALYTICAL GEOMETRY I (5)
This is the first of a three-course sequence in calculus. Students may need to a graphing calculator throughout the sequence of courses. Topics include: analytic geometry, functions, limits, continuity, derivatives and their applications, transcendental functions, antiderivatives, and definite integrals. Certain sections of this course may require the use of a graphing calculator. Meets 5 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in each of the prerequisite courses is required.
Prerequisite: MAC1114 MAC1140
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC2312 CALCULUS AND ANALYTICAL GEOMETRY II (5)
This is the second of a three-course sequence in calculus. Topics include techniques of integration, conics, polar coordinates, indeterminate forms, L'Hôpital's Rule, proper integrals, infinite series, parametric equations, improper integrals, vectors, volume, arc length, surface area, work, and other applications of integration. A graphing calculator may be required in certain sections of this course. Meets 5 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAC2311
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAC2313 CALCULUS AND ANALYTICAL GEOMETRY III (4)
This is the third of a three-course sequence in calculus. Topics include vectors in 3 space, 3 dimensional surfaces, multivariate functions, cylindrical and spherical coordinates, multiple integrals, partial derivatives, vector fields, Green's Theorem, and Stokes' Theorem. A graphing calculator may be required in certain sections of this course. Meets 4 credits of Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAC2312
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAD2104 DISCRETE MATHEMATICS (3)
This course will emphasize mathematical theory, formal methods of proof, and applied problem-solving techniques. Topics include formal proof, sets, logic, functions, probability, relations, graphs, trees, and Boolean algebra.
Prerequisite: MAC1140
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAN2021 INTRODUCTION TO MANAGEMENT (3)
This course covers fundamental management principles and concepts. Emphasis is placed on the management functions of planning, organizing, staffing, directing and controlling. Principles of scientific management, motivation, and economic analysis are studied relative to their use in business decisions.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAN2604 INTERNATIONAL BUSINESS ENVIRONMENT (3)
A basic course in international business theory and practice focusing on the challenges of managing the operations of an international business in diverse legal, political, economic, and cultural environments. Emphasis is placed on strategic planning and decision-making for the international operations of domestic, foreign and multinational corporations.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAN2949 CO OP WORK EXP (3)
A course designed to provide training in a student field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisites: Co-Op department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAP2302 DIFFERENTIAL EQUATIONS (3)
Topics include the classification, solution and application of differential equations, including numerical methods, Laplace transforms, linear systems, and series solutions. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required. This course may be taken for honors credit with the permission of the instructor.
Prerequisite: MAC2312
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAR101 PRINCIPLES OF MARKETING (3)
An introductory course covering the marketing management process. Special topics include the marketing manager's role in a market-directed economy, marketing objectives, strategic planning, and developing marketing mixes for target markets. Material is presented as it relates to the four "Ps" of marketing: product, place, promotion, and price. As a learning activity, students analyze and prepare case studies of businesses engaged in manufacturing, wholesaling, retailing and service.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAR241 INTERNATIONAL MARKETING (3)
This course examines basic marketing principles related to business in an international setting. Emphasis is placed on the role of the international marketing manager in the development of marketing strategies for a variety of markets in diverse cultural and economic situations. Topics covered include the decision-making process in the area of foreign market analysis, target market identification, product planning, promotion, and channels of distribution.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAS2103 LINEAR ALGEBRA (3)
A first course in linear algebra, emphasizing the algebra of matrices and vector spaces. Recommended for students majoring in mathematics or related areas. Meets Area 5A of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in each of the prerequisite courses is required. This course may be taken for honors credit with the permission of the instructor.
Prerequisite: MAC2314 MAC1140
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAT0012 PRE ALGEBRA (4)
A course to improve the abilities of the student who has had difficulties in arithmetic. This course will help the student learn how to read the language of mathematics, to develop problem solving skills, and improve basic arithmetic, geometric and algebraic skills. This course includes college-level academic skills in arithmetic and geometry and is nontransferable. Credit for this course may not be used to meet degree requirements.
Corequisite: MAT0012L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAT0012L PRE ALGEBRA LABORATORY (0)
MAT0020 INTEGRATED ARITHMETIC AND ALGEBRA (8)
A course which combines the arithmetic and algebra skills of MAT0012 and MAT0024. This course includes all mathematics skills necessary for entry into college-level mathematics. Arithmetic topics include operations with real numbers, fractions, decimals, exponents, geometry, measurement systems, percents, and ratios. Algebra topics include sets, polynomial operations, factoring, solving and graphing linear equations and inequalities, operations with quadratic equations, and applications of all concepts. Credit for this course may not be used to meet degree requirements. Corequisite: MAT0020L.
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAT0024 ELEMENTARY ALGEBRA (4)
A course to help students learn the basic algebra skills needed for college-level mathematics courses. The student will utilize his/her knowledge of arithmetic and algebra for applications problems. Topics include sets; linear and quadratic equations and linear inequalities; exponents; factoring; rational expressions; radical expressions; graphing of linear equations; and systems of equations. Certain sections of this course will use teaching software; such sections will occur in an automated and interactive environment. Credit for this course may not be used to meet degree requirements. Suitable placement test score or at least a grade of "C" in the prerequisite course (MAT0012) is required. Corequisite: MAT0024L.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MAT0024L ELEMENTARY ALGEBRA LAB (0)
A laboratory course that will supplement classroom instruction in MAT0024. Instruction will focus on the individual needs of the student. Pre or Corequisite: MAT0024.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=20.00

MAT0103 INTERMEDIATE ALGEBRA (3)
A continuation of algebra containing topics such as factoring; operations with rational expressions; absolute value; exponents, radicals, and roots; complex numbers; linear and quadratic equations and linear inequalities; graphs; systems of equations; and functions, all with applications throughout the course. Certain sections of this course will use teaching software; such sections will occur in an automated and interactive environment. Meets 3 hours of elective credit for the A.A. degree. Suitable placement score or at least a grade of "C" in MAT0024 (or MAT0020) is required. Prerequisite: MAT0024.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

MCB2010 MICROBIOLOGY (3)
An introduction to microbiology emphasizing principles of basic morphology, physiology modes of transmission, biochemistry and genetic mechanisms. It will include a survey of representative types of microorganisms and the role of pathogenic organisms in causing diseases and infections. Prerequisites: Four hours of coursework in the biological sciences, including laboratory, and three hours of chemistry, with a minimum grade of "C". Meets Area 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Prerequisite: BSC1085 BSC1085L CHM1032.
Pre or Corequisite: MCB2010L.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEA0005 INTRODUCTION TO MEDICAL ASSISTING (1)
An overview of medical assisting and related health professions including duties and responsibilities. Public relations and interpersonal relationships of the health team members are emphasized. Study of the various medical specialties and the history of medicine are included. Front office procedures include telephone techniques, medical records management, and mail processing. Prerequisite: program admission.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEA0204 CLINICAL PROCEDURES (2)
Designed to orient the medical assistant to all phases of patient care in the physician's examining room. Discussion of basic principles involved relating to: vital signs, physical examination, minor surgery, instrumentation, sterilization, preparation of medications, physical therapy modalities and electrocardiography will be included. Approved uniform required.
Pre or Corequisite: HSC1531 MEA0204L.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00
MEAO255 MEDICAL OFFICE PROCEDURES I (1)  
Lecture portion of MEAO255L includes discussions in a classroom setting regarding urinalysis, microscopy, specimen collection and preparation, and basic office microbiology/bacteriology. Consists of 4 hours of lecture on a mini-semester. 
Prerequisite: MEAO0005 MEAO204 MEAO204L  
Pre or Corequisite: MEAO255L MEAO271  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=15.00

MEAO255L MEDICAL OFFICE LAB PROCEDURES I (1)  
Laboratory portion of MEAO255. Includes practice regarding urinalysis, and basic office microbiology/bacteriology. Consists of 4 hours of laboratory on a mini-semester.  
Professional uniform required.  
Prerequisite: MEAO204 MEAO204L MEAO255 MEAO255L  
Pre or Corequisite: MEAO256L  
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=15.00

MEAO256 MEDICAL OFFICE PROCEDURES II (1)  
Lecture portion of MEAO256L. Includes instruction in basic office hematology, immunology and chemistry. Professional uniform and shoes required.  
Prerequisite: MEAO204 MEAO204L MEAO255 MEAO255L  
Pre or Corequisite: MEAO256L  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=15.00

MEAO256L MEDICAL OFFICE LABORATORY PROCEDURE (1)  
Lab portion of MEAO256. Includes laboratory practice of basic office hematology, immunology and chemistry. Professional uniform and shoes required.  
Prerequisite: MEAO204 MEAO204L MEAO255 MEAO255L  
Corequisite: MEAO256  
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=20.00

MEAO258 RADIOLOGY FOR THE MEDICAL ASSISTANT (2)  
Provides instruction in the basic principles of X-ray, film handling, processing, radiographic technique, radiation biology and radiation protection. Prerequisite: Program Admission or department permission.  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEAO259 RADIOLOGY FOR MEDICAL ASSISTING PAR (2)  
A continuation of MEAO258 with emphasis on radiographic procedures and positioning, patient care and management with emphasis on terminology, anatomy, positioning and procedures, aseptic and sterile technique. Will also include a brief review of subjects taught in MEAO258.  
Prerequisite: MEAO258  
Pre or Corequisite: MEAO259L  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

MEAO259L RADIOLOGY FOR MEDICAL ASSISTING PAR (1)  
Practical application of the principles of radiation protection, radiographic technique, film handling and processing, darkroom operation, radiographic positioning and procedures related to the upper extremities, lower extremities, and chest.  
Prerequisite: MEAO258  
Corequisite: MEAO259  
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=20.00

MEAO271 ADMINISTRATIVE OFFICE PROCEDURES (2)  
Deals with financial management of the medical office. Basic accounting procedures consisting of pegboard, billing, collections, coding, payroll processing, banking and medical transcription application are included. Students will be provided with the opportunity to learn fundamentals of health insurance practice in filing insurance claims, diagnostic and procedural coding, setting appointments, managing the medical record, processing mail and other financial responsibilities associated with the medical office. Discussion regarding the different types of insurance and manage care plans and general clerical functions will be included. Medico legal and ethical responsibilities regarding financial aspects of the medical office will be studied.  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEAO271L ADMINISTRATIVE OFFICE PROCEDURES LA (1)  
Laboratory portion of MEAO271. Deals with financial management of the medical office. Basic accounting procedures consisting of pegboard, billing, collections, coding, payroll processing, banking and medical transcription application are included. Students will be provided with the opportunity to learn fundamentals of health insurance practice in filing insurance claims, diagnostic and procedural coding, setting appointments, managing the medical record, processing mail and other financial responsibilities associated with the medical office. Discussion regarding the different types of insurance and manage care plans and general clerical functions will be included. Medico legal and ethical responsibilities regarding financial aspects of the medical office will be studied.  
Corequisite: MEAO271  
Pre or Corequisite: HSC1531  
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=10.00

MEAO382 MEDICAL LAW AND ETHICS (1)  
The ethics of medicine and medical practice are studied. Legal requirements and implications to the medical professional are stressed.  
Prerequisite: Program Admissions.  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEAO540 BASIC ELECTROCARDIOGRAPHY FOR MEDIC (1)  
This course will discuss a brief history of electrocardiography, a brief discussion of the cardiovascular system, the role of the Medical Assistant, the care and use of the electrographic (EKG) machine, positioning the patient, electrical hazards, normal EKG pattern, identifying and reporting abnormal EKG patterns and mounting the EKG. Ambulatory cardiac monitors will be studied.  
Corequisite: MEAO540L  
Pre or Corequisite: HSC1531  
Lec Hrs=37 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEAO540L BASIC ELECTROCARDIOGRAPHY FOR MED A (1)  
Laboratory portion of MEAO540. This course will emphasize the role of the Medical Assistant, the care and use of the electrographic (EKG) machine, positioning the patient, electrical hazards, normal EKG pattern, identifying and reporting abnormal EKG patterns and mounting the EKG.  
Corequisite: MEAO540  
Pre or Corequisite: HSC1531
MEAS000 EXTERNSHIP IN MEDICAL ASSISTING
(7)
Student assigned to physician's office, clinic, or laboratory for a total of two hundred hours. Conference meetings will be arranged on an individual or group basis at a time and place to be arranged by the student and the coordinator. Attendance at group orientation prior to assignment is mandatory. Prerequisite: all courses suggested in Term I. Corequisite: all courses suggested in Term II.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=224 Fees=30.00

MEAS0952 SEMINAR IN MEDICAL ASSISTING
(0)
Lecture course designed to serve as a review for medical assisting students in preparation for their national certification examination. Selected areas of the curriculum will be emphasized as needed.
Corequisite: MEA0800
Lec Hrs=26 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MEAS1233 ANATOMY AND PHYSIOLOGY FOR M.A.
(3)
A basic anatomy and physiology course designed to meet the needs of medical assisting students. Emphasis will be placed on the human body structure, the functions of its many different systems and their associated diseases.
Corequisite: HSC1531
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MGF1106 MATHEMATICS FOR LIBERAL ARTS I
(3)
This is a general education course which includes the college-level skills not included in the courses MAT0012 Pre-Algebra, MAT0024 Elementary Algebra, and MAT1033 Intermediate Algebra. This course will include topics in logic; geometry; set theory; probability; and statistics. This course will also emphasize applications to real-world situations and the integration of other disciplines, including (but not limited to) business and the physical sciences. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

MGF1107 MATHEMATICS FOR LIBERAL ARTS II
(3)
This is a general education course which includes college-level skills not included in the courses MAT0012 Pre-Algebra, MAT0024 Elementary Algebra, and MAT1033 Intermediate Algebra. The course will include selected topics from mathematics of finance; linear and exponential functions; number systems; history of mathematics; theory of numbers; graph theory; numerical methods and algorithms; game theory; and student project(s) (strongly recommended). This course will also emphasize applications to real-world situations and the integration of other disciplines, including (but not limited to) business and physical sciences. (Note: Liberal Arts Math I is not a prerequisite for this course). Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAT1033.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA0047C CUSTOMER SERVICE REPRESENTATIVE
(2)
The purpose of this course is to provide the knowledge and skills necessary to prepare students for employment in positions in the customer care service field. Emphasis is placed on developing proficiency in the following skill-based groups: computer, telephone, interpersonal communication, conflict resolution, problem solving, stress management, and employability.
Lec Hrs=50 Lab Hrs=25 Oth Hrs=0 Fees=0.00

MKA0102 SALESMANSHIP
(3)
Through a combination of principles and techniques, this course identifies the why, what, how and when of selling. Students develop skills in prospecting, opening the sale, presenting customer benefits, overcoming objections, and closing the sale.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA1511 ADVERTISING
(3)
This course introduces the use of promotional strategy and marketing communications in achieving marketing objectives. It focuses on how product features/benefits can be translated into promotional appeals that will influence customer purchasing behavior. Topics include promotional objectives, product positioning, selecting media, creative analyses, budgeting and measuring promotional effectiveness. As a learning activity, students prepare a promotional program for a product, business, or not-for-profit organization.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA1930 SEMINAR I: MARKETING IN PERSPECTIVE
(3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA2102 RETAILING
(3)
This course provides an introduction to the management functions unique to retail store operations. Special topics include department store organization, shrinkage prevention, store location and layout, shopping centers, and merchandising.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA2931 SEMINAR II: RESEARCH IN MARKETING
(3)
This course includes marketing management related activities such as individual projects in promotion and entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Prerequisite: MKA1930
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA2932 SEMINAR III: MARKETING MANAGEMENT
(3)
This course includes marketing management related activities such as individual projects in promotion and
entrepreneurship, marketing research and career planning. The students have the opportunity to develop leadership skills through participation in Delta Epsilon Chi related activities.
Prerequisite: MKA1930 MKA2931
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MKA2949 CO OP WORK EXP (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MLT1525C MEDICAL LABORATORY TECHNOLOGY III (5)
Immunohematology to include basic genetics; quality control; principles, techniques and factors affecting testing for identification of immunoglobulins (natural and acquired); donor selection, phlebotomy and processing including legal aspects; blood components; compatibility testing and exchange transfusion; Course includes experiences in the classroom and in a clinical facility.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=88 Fees=70.05

MLT2624 CLINICAL CHEMISTRY (1)
A study of enzymes, steroids, hormones, lipids and toxicology. Advanced instrumentation. Prerequisite: Satisfactory completion of an approved MLT C Program or permission of the MLT Coordinator. 1 hr. per week. Term II only.
Pre or Corequisite: MLT2624L
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MMC1000 INTRO TO MASS COMMUNICATION (3)
Overview of contemporary mass media and its historical background. Includes processes and effects of media messages on the individual and society. Deals with the media industry, its responsibilities, legalities, and careers. Media discussed may include newspapers, magazines, books, radio, television, advertising, public relations, and the movie and recording industries.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MNAI134 CONTACT CENTER OPERATIONS (3)
This course will prepare students for employment as Contact Center Representatives in the field of Contact/Customer Service. Students will be able to proficiently act as an information processing operators on a windows based microcomputer. Written and oral communication, computer essentials, and customer service skills will be enhanced with an emphasis throughout on quality performance in the learning environment and in the workplace.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MNAI161 INTRODUCTION TO CUSTOMER SERVICE (3)
This course provides the student with the basic concepts and current trends in the customer service industry. Through actual case studies, the students analyze organizations which have implemented successful customer service strategies.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MNAI821C INTRODUCTION TO E-COMMERCE (3)
This course examines the history, basic, tools, and other important issues surrounding the many forms of Electronic Commerce. The students develop skills and gain knowledge and experience with a networked community designed for business function and transactions. Subject areas include: types of E-Commerce; E-Marketing; E-Accounting; E-Customer Service; effective E-Commerce solutions and the development process.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MNAI822C MANAGEMENT OF E-COMMERCE (3)
This course examines the management functions unique to Internet marketing and sales. Subject area include infrastructure knowledge; technical requirements; designing security solutions; content management; successful commercial packages; and the globalization of E-Commerce.
Prerequisite: MNAI821C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MNAI948 INDUSTRY WORK EXPERIENCE (27)
Students with a postsecondary adult vocational certificate or equivalent may receive credit based on departmental review. Credits may apply only to students seeking an A.S. or A.A. in Industrial Management Technology.
Lec Hrs=0 Lab Hrs=300 Oth Hrs=0 Fees=0.00

MNA2345 PRINCIPLES OF SUPERVISION (3)
This course covers fundamental supervision principles and techniques. It emphasizes the role of supervision in business organizations through the proper handling of human relations with employees, other supervisors and higher management. Issues include employee morale, absenteeism, motivation, and related behavioral topics.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MNA2823C E-COMMERCE CASE STUDIES (3)
Students will develop an E-business firm build a site for that business, and compare businesses in various industries. They will learn how an E-Business compared to an contrasts from a land-based business with a hands-on approach.
Prerequisite: MNAI822C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MNA2824C E-COMMERCE PRACTICUM (3)
An internship with a corporation, non-profit or governmental agency allowing the student to gain professional experience that will help integrate the theory and practice of information systems. Internships must be approved by the department chair or another appointed designee.
Prerequisite: MNA2823C
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MNA2905 INDEPENDENT STUDY IN INDUSTRIAL MAN (3)
A directed study course available to both majors and non-majors who wish to investigate a particular concern or related issue in the field of Industrial Management. The student will make application for the course to the program manager.
Prerequisite: All students must contact the Program Manager to obtain registration approval.
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

MNA2949 CO-OP WORK EXP (3)
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations.
Course Descriptions

Prerequisite: Program Manager approval. All students must contact the program manager to obtain registration approval. Lec Hrs=0 Lab Hrs=144 Oth Hrs=0 Fees=0.00

MSL1001 FOUNDATIONS OF OFFICERSHIP (2)
Army ROTC: Examines the unique duties and responsibilities of officers, and the organization and role of the Army, reviews skills pertaining to fitness and communication, and analyzes Army values and expected ethical behavior.
Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=0.00

MSL1002 BASIC LEADERSHIP (2)
Army ROTC: Presents fundamental leadership concepts and doctrine, student will practice basic skills that underlie effective problem solving and examine the officer experience.
Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=0.00

MSL2101 INDIVIDUAL LEADERSHIP STUDIES (2)
Army ROTC: Develops knowledge of self, self-confidence, individual leadership skills, problem solving and critical thinking skills, and improves communication and conflict resolution skills.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSL2102 LEADERSHIP AND TEAMWORK (2)
Army ROTC: Focuses on self-development by gaining knowledge of self and group processes and by challenging current beliefs, knowledge and skills.
Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=0.00

MSS0001 MEDICAL ETHICS AND STANDARDS FOR MA (0)
Course presents a detailed exploration of ethics and professionalism as it related to massage therapy, focusing on the development and application of appropriate professional boundaries and the psychological dimensions of the client-therapist relationship. Licensure, national certification, professional organizations, malpractice insurance, sexuality, cultural diversity, and the other concepts related to ethical practice are discussed.
Lec Hrs=15 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0150 ANATOMY AND PHYSIOLOGY OF BODY SYST (1)
The structure and function of human organ systems as they service of massage therapy are presented. Basic pathophysiology of the major body systems and organs as they apply to massage therapy are discussed in relationship to appropriate care by the massage therapist. Systemic contraindications, local contraindications and cautions that influence massage are presented.
Lec Hrs=45 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0156 ANATOMY AND PHYSIOLOGY FOR MASSAGE (1)
Course provides an opportunity for students to develop an applied understanding of neuromusculoskeletal anatomy. Postural analysis is presented. Students study the major muscles of the body, their origins, insertions, tendons of attachment, and actions; as well as associated bones, bony landmarks and stabilizing ligaments for each joint. Planes of movement and lever classification are discussed.
Prerequisite: MSS0150
Corequisite: MSS0156L
Lec Hrs=45 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0156L ANATOMY AND PHYSIOLOGY MASSAGE THER (2)
Course provides integration of neuromusculoskeletal anatomy into therapeutic application of massage. Massage techniques are presented sequentially with review of positioning, appropriate strokes, ethical situations, appropriate draping, etc. Throughout the course, charting and interviewing skills are taught and practiced.
Lec Hrs=0 Lab Hrs=60 Oth Hrs=0 Fees=25.00

MSS0250 INTRODUCTION TO MASSAGE THERAPY (0)
Course presents an introduction to the massage therapy profession. Effective and appropriate communication techniques for management of the client-therapist relationship; communication skills necessary for working with colleagues in the health care community; and responsibility to the professional community and one's own community, through civic participation and membership in a professional association are discussed. The theory and history of massage therapy are explored.
Pre or Corequisite: MSS0001 MSS0250L
Lec Hrs=15 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0250L INTRODUCTION TO MASSAGE THERAPY LAB (5)
Course explores the effects, precautions and variations associated with basic massage strokes and issues associated with touch and trust. Students learn how to perform a full body massage that includes the five basic Swedish massage strokes and variations plus compression and fascia release. Proper draping, lubrication, bolster use and turning procedures during the massage are also taught as well as appropriate use of pressure, rhythm and movement to enhance the massage's effects. The ability to locate areas of tension or discomfort in clients is developed. Efficient body mechanics, hygiene and self-care while performing massage are practiced. Introductory record keeping as well as centering and breathing techniques are presented.
Pre or Corequisite: MSS0001 MSS0250
Lec Hrs=0 Lab Hrs=170 Oth Hrs=0 Fees=45.05

MSS0281 ALLIED MODALITIES (0)
Basic principles of allied modalities such as Polarity Therapy, Asian massage, trigger point therapy, deep tissue massage, reflexology, myofascial massage, muscle energy technique and others are explored as well as demonstrated. Specific techniques are related to the activities or needs of unique populations as appropriate, including older adults, children, persons with disabilities, and athletes. Introduction to the basic elements of other natural health care disciplines is presented.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0281L
Lec Hrs=15 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0281L ALLIED MODALITIES - LAB (4)
Students learn how to help promote relaxation and relieve muscle tension via palpation as well as by determining joint range of motion, and then applying massage, exercise and stretching to support normal motion, muscle tone and relaxation. General techniques for full body and seated massage are practiced. Emphasis continues on the development of correct body mechanics, injury prevention, table management, draping methods, and charting. Hands-on skills in several modalities such as reflexology, manual lymph drainage and neuromuscular therapy are developed.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0281
Lec Hrs=0 Lab Hrs=120 Oth Hrs=0 Fees=0.00
MSS0300 HYDROTHERAPY MODALITIES (0)
The therapeutic use of superficial heat and cryotherapy is discussed with an emphasis on developing an ability to make professional judgments about the application of the appropriate modality for each client situation. The history of hydrotherapy and principles of hydrotherapeutic applications and equipment, indications, contraindications are discussed. Basic principles of ultrasound, interferential current, TENS and electrical stimulation are presented.
Prerequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0300L
Lec Hrs=15 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MSS0300L HYDROTHERAPY MODALITIES - LAB (1)
Practical experience in the use of ice, heat and hydrotherapies is provided. Application of physical agents modalities are practiced with emphasis on proper technique, safety, indications and contraindications.
Prequisite: MSS0250 MSS0250L
Pre or Corequisite: MSS0300
Lec Hrs=0 Lab Hrs=45 Oth Hrs=0 Fees=33.95

MSS0803L MASSAGE THERAPY CLINICAL PRACTICUM (3)
Course encourages the synthesis and integration of principles and techniques learned across the curriculum. Students provide comprehensive massage therapy services in the Massage Therapy lab under direct supervision, including specific upper and lower body techniques. Introduces the experience of working in a massage clinic including learning principles of relating to clients, keeping records, determining fees, billing insurance, marketing and building a massage practice, maintaining hygiene standards and other activities. Students participate in case conferences and/or other professional discussions. In addition to laboratory sessions, students are required to engage in practice message sessions outside of scheduled class hours, and must complete a minimum community service requirement.
Lec Hrs=0 Lab Hrs=110 Oth Hrs=0 Fees=45.05

MTBI103 BUSINESS MATHEMATICS (3)
This course emphasizes the application of mathematics to selected business topics and problems. In addition, it includes material in linear equations and descriptive statistics.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MTBI310 APPLIED MATHEMATICS (3)
This course is designed for Associate of Science degree seeking students. The following topics are included: the metric system and measurement; linear and quadratic functions; ratios and proportions; exponents and logarithms; and descriptive statistics. Problem solving and applications requiring a calculator will be presented throughout the course. Credit for this course cannot be used to meet the general education requirements for the Associate of Arts degree.
Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

MTBI325 ENGINEERING TECHNOLOGY MATH I (4)
This is the first course in a two term sequence for Electronics and Computer engineering technology students. Topics include Euclidean geometry, algebra, exponents and radicals, graphing, trigonometry, vectors, complex numbers, and straight line concepts. Calculators will be used to solve problems after the basic principles have been mastered.
Prerequisite: MAT0024
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MTBI326 ENGINEERING TECHNOLOGY MATH II (4)
This is the second course of a two term sequence designed for Computer and Electronics engineering technology students. Topics include systems of linear equations, factoring and fractions, roots and radicals, quadratic equations, complex numbers, exponentials and logarithms, trigonometry, analytical geometry and linear inequalities. Calculators will be used to solve problems after the basic principles have been mastered.
Prerequisite: MTBI325
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MTBI370 MATH TOPICS FOR HEALTH RELATED PROF (1)
This course provides an intensive review of mathematics operations involving fractions, decimals, percents, ratios, and proportions. Units and measures in apothecaries, metric, and household systems are also discussed with a major emphasis upon application for the calculation of both oral and parenteral drug dosages.
Pre or Corequisite: NUR1020
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=2.00

MTE 1004C INTRODUCTION TO MARINE TECHNOLOGY (3)
Course provides the student with the basic skills needed in repairing the marine engine. Hands-on training includes safety rules and regulations; use of tools; identification of fasteners, gaskets, and seals; use of parts and electrical symbols or wiring diagrams.
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE1018C RIGGING AND MAKE READY (3)
Preparation and deliverable of sales merchandise, mounting of various accessories, rigging cables, wiring and control boxes. Minor maintenance and lubrication of systems.
Prerequisite: MTE1004C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE1056C MARINE DIESEL ENGINES I (3)
Course provides theory and hands-on application of the marine diesel engine and related systems. Instruction includes disassembly, reassembly, inspection, cleaning and troubleshooting engine parts and systems.
Prerequisite: MTE1004C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE1166C MARINE FUEL SYSTEMS, DIESEL & GAS (3)
Course provides theory, operation, and service of gasoline and diesel fuel systems as well as conventional systems and characteristics of fuels and their oil mixture; safety; marine carburetors, tank construction and installation, troubleshooting and test equipment using dynometer.
Prerequisite: MTE1004C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE1310C ADVANCED MARINE COMPOSITES, PAINTIN (3)
Course Descriptions

MTE1400C MARINE ELECTRICITY (3)
Basic electrical theory for both AC and DC circuits in marine systems. Application of electrical theory to the generating, starting and auxiliary circuits of the marine engine. Emphasis on theory of operation and repair of equipment in the field with special attention to marine problems in salt-water environment.
Prerequisite: MTE1004C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=100.00

MTE1542C AIR CONDITIONING AND REFRIGERATION (3)
Principles of air conditioning and refrigeration systems on marine vessels.
Prerequisite: MTE1004C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2058C DIESEL ENGINES II (3)
Advanced theory of operation of diesel engines with an understanding of ABYC standards and recommended practices for systems.
Prerequisite: MTE1004C MTE1056C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2234C INBOARD/OUTBOARD SAILDRIVE AND TRAN (3)
Course provides instruction on large outboard lower units, stern drives and marine gear assemblies of various manufacturers. Complete disassembly and reassembly procedures on outboard lower units. The study of hydraulics in transmissions and theory of propellers.
Prerequisite: MTE1004C MTE1018C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2420C ADVANCED ELECTRICAL SYSTEMS (3)
Advanced electrical systems and troubleshooting procedures, diagnosis and repair of circuits and equipment malfunctions on marine vessels.
Prerequisite: MTE1004C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2490C MARINE ELECTRONICS (3)
Principles of on-board electronic systems, installation and troubleshooting of communication and navigational systems.
Prerequisite: MTE1004C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2541C MARINE AUXILIARY EQUIPMENT (3)
This course provides an introduction to centrifugal pumps; AC electricity and generators; hydraulic; air conditioning and refrigeration systems. Theory of operation and fundamentals of servicing are taught with a strong emphasis on techniques.
Prerequisite: MTE1004C MTE1018C MTE1400C
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=45.00

MTE2949 MARINE INTERNSHIP (2)
Internship co-operative course providing on-the-job training at a local marine repair station. Includes required student outcomes meeting industry standards.
Prerequisite: MTE1004C MTE1018C MTE1400C
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MTG2204 GEOMETRY FOR TEACHERS (3)
This course is designed for middle and high school mathematics teachers. The course emphasizes Euclidean plane geometry with an introduction to the non-Euclidean geometries. The problems, proofs, and constructions involve line segments, angles, triangles, polygons, circles, parallel lines, and similarity. Credit for this course may not be used to meet general education requirements for the A.A. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MTG2206 COLLEGE GEOMETRY (3)
A college geometry course emphasizing Euclidean Geometry and its relationship to logic, trigonometry, and coordinate geometry. The problems, proofs, constructions, and graphs involve line segments, angles, triangles and polygons, parallel and perpendicular lines, slope of lines, circles, and similarity. Trigonometry is presented in terms of right angle relationships; logic is the basis for deductive reasoning in proofs of theorems; and lines and other geometric figures are graphed in the rectangular coordinate system. Unless a requirement or elective in an A.A. degree program, the transfer credit status of this course would be evaluated by the receiving institution.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUE1440 STRING CLASS (1)
Development of elementary performing skills on the violin. A basic study of all string instruments. Examines literature and teaching techniques for group instruction of students.
Pre or Corequisite: MUT1111
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUE1450 WOODWIND CLASS (1)
Development of elementary performing skills on the clarinet. A basic study of all woodwind instruments. Examines literature and teaching techniques for group instruction of students.
Pre or Corequisite: MUT1111
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUG2101 CONDUCTING (2)
The elementary theory and practice of the technique of conducting.
Prerequisite: MUT1111 MUT1241
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUH2019 DEVELOPMENT OF AMERICAN POPULAR MUS (3)
Popular music in the United States, from 1820 to the present, including the Big Band Era, Country and Western, Jazz, Black Music, and the Rock scene (beginning in 1955).
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUH2111 MUSIC HISTORY AND LITERATURE (3)
A survey course tracing the history of music from antiquity through the 18th century, showing the significance of music's development resulting from social, international and cultural influences. Meets Areas 2E and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUH2112 MUSIC HISTORY AND LITERATURE (3)
A survey course tracing the history of music from the beginning of the 19th century to the present, showing the significance of music's development resulting from social,
MUN1010 MUSIC APPRECIATION (3)
Course for non-music majors, designed to enlarge the student's appreciation of music as it relates to world cultures. Meets Areas 2E and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUN1120 BAND (1)
Open to all students, faculty and members of the community who play a band instrument. Chairs assigned by the conductor through audition. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1180 CONCERT BAND (1)
Open to all students, faculty and members of the community who play a band instrument. Chairs assigned by the conductor through audition. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1210 SYMPHONY ORCHESTRA (1)
Open by audition to all students, faculty and members of the community who play an orchestral instrument. Chairs assigned by the conductor. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1280 ORCHESTRA (1)
Open by audition to all students, faculty, and members of the community who play an orchestral instrument. Chairs assigned by the conductor. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1310 COLLEGE SINGERS (1)
Open to all college students by audition. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1340 VOCAL ENSEMBLE (1)
A select vocal ensemble performing a wide variety of literature, including Jazz and Pop. Open to all students by audition. May be taken four times for transfer credit.
Corequisite: MUN1310 or MUN1380
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1341 SEAHAWK SINGERS (1)
A select vocal ensemble performing a variety of literature including Jazz and Pop. Open to all students by audition. May be taken four times for transfer credit.
Corequisite: MUN1310 or MUN1380
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1380 BROWARD CHORAL SOCIETY (1)
A select vocal ensemble performing a variety of literature, including Jazz and Pop. Open to all students by audition. May be taken four times for transfer credit.
Corequisite: MUN1310 or MUN1380
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1430 BRASS ENSEMBLE (1)
A select instrumental ensemble that performs music written or arranged for Brass instruments. Enrollment is determined by the director through audition. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1440 PERCUSSION ENSEMBLE (1)
A select instrumental ensemble that performs music written or arranged for Percussion instruments. Enrollment is determined by the director through audition. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1460 CHAMBER ENSEMBLE (1)
Small group whose members are selected by the director through audition. Study and performance of repertoire appropriate to the specific chamber media. Three hours rehearsal weekly. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1480 CLASSICAL GUITAR ENSEMBLE (1)
Open to all students, faculty and members of the community who play guitar. Enrollment is determined by the director through audition. Participants will study and perform music from all periods in preparation for public performance. May be taken four times for transfer credit.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN1481 JAZZ GUITAR ENSEMBLE (1)
Course Descriptions

Open to all students, faculty and members of the community who play guitar. Enrollment is determined by the director through audition. Participants will study and perform music of various styles in preparation for public performance. May be taken four times for transfer credit.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN170 JAZZ ENSEMBLE
Enrollment is determined by the director through audition. Study and performance of music associated with the popular music and show presentation fields. May be taken four times for transfer credit.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN171 JAZZ COMBO
Enrollment is determined by the director through audition. Study and performance of music associated with the popular music and show presentation fields. May be taken four times for transfer credit.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUN178 JAZZ/POP ENSEMBLE
Enrollment is determined by the director through audition. Study and performance of music associated with the popular music, show presentation and dance band fields. May be taken four times for transfer credit.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUO101 OPERA WORKSHOP
Open to all college students by audition. The study and performance of Opera Literature. May be taken four times for transfer credit. Meets Area 7 A.A. degree general education requirements.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUO150 OPERA PRODUCTION
Open to all college students by audition. The study and performance of opera literature. May be taken four times for transfer credit.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUS242 INTRODUCTION TO COMPUTER MUSIC
An introduction to the creation and performance of music using computers and MIDI technology. Prerequisite: basic keyboard skills and music reading ability.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUS295 INDEPENDENT STUDY: MUSIC
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to music. Prerequisite: instructor approval. Students will shape the course to fit their needs by planning activities with a faculty advisor.

Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=0.00

MUS2930 MUSIC: SPECIAL TOPICS
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the MUS2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT101 FUNDAMENTALS OF MUSIC
A study of basic music fundamentals for the non-music major or the beginning music major whose background in music has been minimal.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT111 MUSIC THEORY I
A course on music theory and related keyboard skills. Emphasis on diatonic materials. Pre or Corequisite: MUT1241

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT112 MUSIC THEORY II
A continuation of MUT111.

Prerequisite: MUT1111

Corequisite: MUT1242

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT1241 EAR TRAINING AND SIGHT SINGING I
A course in the development of sight singing and ear training skills.

Corequisite: MUT1111

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT1242 EAR TRAINING AND SIGHT SINGING II
A continuation of MUT1241.

Prerequisite: MUT1241

Corequisite: MUT1112

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUT211 MUSIC THEORY III
Continuation of MUT111. Concentration on chromatic materials, musical forms, and 20th century techniques. Prerequisite: MUT1112

Corequisite: MUT2246

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT2117 MUSIC THEORY IV
Continuation of MUT2116. Prerequisite: MUT2116

Corequisite: MUT2247

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT2246 EAR TRAINING AND SIGHT SINGING III
A continuation of MUT1242.

Prerequisite: MUT1242

Corequisite: MUT2116

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUT2247 EAR TRAINING AND SIGHT SINGING IV
Continuation of MUT2246.

Prerequisite: MUT2246

Corequisite: MUT2117

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MUT264 JAZZ THEORY AND IMPROVISATION I
A study of the materials and structure of jazz music and the development of improvisational skills. Prerequisite: MUT1111

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MUT2642 JAZZ THEORY AND IMPROVISATION II
A study of the materials and structure of jazz music and the development of improvisational skills.
Prerequisite: MUT2641
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

MVB1110 BRASS TECHNIQUES (1)
Basic instruction in brass. One hour lesson per week and two hours of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB1211 TRUMPET (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB1212 FRENCH HORN (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB1214 BARITONE HORN (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB1215 TUBA (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB1311 PRINCIPAL TRUMPET I (1)
Applied instruction in trumpet for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB1312 PRINCIPAL FRENCH HORN I (1)
Applied instruction in French horn for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB1313 PRINCIPAL TROMBONE I (1)
Applied instruction in trombone for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211

MVB1314 PRINCIPAL BARITONE HORN I (1)
Applied instruction in baritone horn for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB1315 PRINCIPAL TUBA I (1)
Applied instruction in tuba for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB2211 TRUMPET (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB2222 FRENCH HORN (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB2223 TROMBONE (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB2224 BARITONE HORN (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB2225 TUBA (1)
One half-hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVB2321 PRINCIPAL TRUMPET II (1)
Applied instruction in trumpet for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVB2322 PRINCIPAL TROMBONE II (1)
Applied instruction in trombone for the music principal.
One hour lesson per week and two hours of practice daily.
Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00
MVJ2324 PRINCIPAL JAZZ PIANO I (1)  
Applied instruction in jazz piano for the music principal. One hour lesson per week and two hours of practice daily. 
Prerequisite: Audition. 
Corequisite: Any music course (MUx) other than Music Appreciation. 
Corequisite: MVK1211 
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVJ2323 PRINCIPAL JAZZ GUITAR II (1)  
Applied instruction in jazz guitar for the music principal. One hour lesson per week and two hours of practice daily. 
Prerequisite: Audition. 
Corequisite: Any music course (MUx) other than Music Appreciation. 
Corequisite: MVK1211 
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVJ1311 PRINCIPAL JAZZ VOICE I (1)  
Applied instruction in jazz voice for the music principal. One hour lesson per week and two hours of practice daily. 
Prerequisite: Audition. 
Corequisite: Any music course (MUx) other than Music Appreciation. 
Corequisite: MVK1211 
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00
Applied instruction in organ for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVO1070 APPLIED MUSIC JAZZ COACHING (1)
Applied music jazz coaching on the student's instrument. One hour lesson per week and two hours practice daily. By permission of the instructor. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVP101I BASIC PERCUSSION (1)
Basic instruction in percussion. One hour lesson per week and two hours of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVP1221 PERCUSSION (1)
One half hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVP131I PRINCIPAL PERCUSSION I (1)
Applied instruction in percussion for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVP2221 PERCUSSION (1)
One half hour lesson weekly and one hour of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVP232I PRINCIPAL PERCUSSION II (1)
Applied instruction in percussion for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1110 STRING TECHNIQUES (1)
Basic instruction in strings. One hour lesson per week and two hours of practice daily.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1116 GUITAR CLASS (1)
Class instruction in beginning classical guitar techniques. Meets Area 7 A.A. degree general education requirements.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

MVS121I VIOLIN (1)
MVS1212 VIOLIN
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=50.00

MVS1213 CELLO
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=50.00

MVS1214 STRING BASS
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=50.00

MVS1215 HARP
One half hour lesson weekly, and one hour of practice daily. Course scheduled on demand. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=50.00

MVS1216 CLASSICAL GUITAR
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=50.00

MVS1311 PRINCIPAL VIOLIN I
Applied instruction in violin for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1312 PRINCIPAL VIOLA I
Applied instruction in viola for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1313 PRINCIPAL CELLO I
Applied instruction in cello for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1314 PRINCIPAL STRING BASS I
Applied instruction in string bass for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.

MVS1315 HARP
One hour lesson weekly, and two hours of practice daily. Class offered on demand. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS1316 PRINCIPAL CLASSICAL GUITAR I
Applied instruction in classical guitar for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVS2221 VIOLIN
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2222 VIOLA
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2223 CELLO
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2224 STRING BASS
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2225 HARP
One half hour lesson weekly, and one hour practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2226 CLASSICAL GUITAR
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVS2231 PRINCIPAL VIOLIN II
Applied instruction in violin for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVV1101</td>
<td>BASIC VOICE</td>
<td>1</td>
<td>Basic instruction in voice. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00</td>
</tr>
<tr>
<td>MVV1211</td>
<td>VOICE</td>
<td>1</td>
<td>Applied instruction in voice for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00</td>
</tr>
<tr>
<td>MVV1311</td>
<td>PRINCIPAL VOICE I</td>
<td>1</td>
<td>Applied instruction in voice for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00</td>
</tr>
<tr>
<td>MVV2221</td>
<td>VOICE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Prerequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVV2321</td>
<td>PRINCIPAL VOICE II</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Prerequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVS1110</td>
<td>WOODWIND TECHNIQUES</td>
<td>1</td>
<td>Basic instruction in woodwinds. One hour lesson per week and two hours of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00</td>
</tr>
<tr>
<td>MVS1212</td>
<td>OBOE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVS1213</td>
<td>CLARINET</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVS1214</td>
<td>BASSOON</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVS1215</td>
<td>SAXOPHONE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVW1010</td>
<td>PRINCIPAL VIOLA I</td>
<td>1</td>
<td>Applied instruction in viola for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00</td>
</tr>
<tr>
<td>MVW1212</td>
<td>FLUTE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVW1213</td>
<td>OBOE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVW1214</td>
<td>CLARINET</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVW1215</td>
<td>SAXOPHONE</td>
<td>1</td>
<td>One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
<tr>
<td>MVW1311</td>
<td>PRINCIPAL FLUTE I</td>
<td>1</td>
<td>Applied instruction in flute for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition. Corequisite: Any music course (MUx) other than Music Appreciation. Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00</td>
</tr>
</tbody>
</table>

**Corequisite Requirements:**
- Any music course (MUx) other than Music Appreciation.
Music Appreciation, Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW1312 PRINCIPAL OBOE I (1)
Applied instruction in oboe for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW1313 PRINCIPAL CLARINET I (1)
Applied instruction in clarinet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW1314 PRINCIPAL BASSOON I (1)
Applied instruction in bassoon for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW1315 PRINCIPAL SAXOPHONE I (1)
Applied instruction in saxophone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW2221 FLUTE (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVW2222 OBOE (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVW2223 CLARINET (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVW2224 BASSOON (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVW2225 SAXOPHONE (1)
One half hour lesson weekly and one hour of practice daily. Corequisite: Any music course (MUx) other than Music Appreciation.
Lec Hrs=0 Lab Hrs=8 Oth Hrs=0 Fees=50.00

MVW2321 PRINCIPAL FLUTE II (1)
Applied instruction in flute for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW2322 PRINCIPAL OBOE II (1)
Applied instruction in oboe for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW2323 PRINCIPAL CLARINET II (1)
Applied instruction in clarinet for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW2324 PRINCIPAL BASSOON II (1)
Applied instruction in bassoon for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

MVW2325 PRINCIPAL SAXOPHONE II (1)
Applied instruction in saxophone for the music principal. One hour lesson per week and two hours of practice daily. Prerequisite: Audition.
Corequisite: Any music course (MUx) other than Music Appreciation.
Corequisite: MVK1211
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=100.00

NMT1002 INTRODUCTION TO NUCLEAR MEDICINE TE (3)
Introduces the student to the field of nuclear medicine. Review of CPR and first aid; determine vital signs; how to provide patient care; monitor life support equipment; take and record case histories; and apply universal precautions. Prerequisites: Program Admission.
Pre or Corequisite: NMT1002L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NMT1002L INTRODUCTION TO NUCLEAR MEDICINE LA (1)
Introduces the student to the fundamentals of clinical nuclear medicine primarily through practice of material that is learned in NMT1002. Prerequisite: Program Admission.
Pre or Corequisite: NMT1002
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

NMT312 NUCLEAR MEDICINE RADIATION PROTECTI (3)
Pre or Corequisite: NMT2130 NMT2705L NMT2834

Admission.

biological response patterns. Prerequisite: Program interaction modes, cellular, tissue and the total body physics to include radiation sources, radiation/matter ionizing radiation and an introduction to the fundamentals of Study of biological effects associated with exposure to

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

Pre or Corequisite: NMT2485 NMT2705L NMT2834

frame. Prerequisite: Program Admission.

pharmaceuticals in appropriate dosage and effective time appropriately; demonstrate an understanding of ordering quality control tests; dispose of radioactive waste pharmaceutical laboratory records and materials; obtain a Student will understand how to maintain radio-

RADIOPHARMACY (3)

Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=50.05

Pre or Corequisite: NMT2102 NMT2706L NMT2844

Prerequisite: NMT2130 NMT2485 NMT2705L

NMT2573 NUCLEAR MEDICINE QUALITY CONTROL/QU (3)

Student will perform quality control testing of imaging systems; calibrate and operate scintillation counters; calibrate and operate gas-filled detectors; perform quality assurance testing of routine imaging and procedures. Prerequisite: NMT2130 NMT2485 NMT2705L

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NMT2705L NUCLEAR MEDICINE LABORATORY I (1)

Practical and hands-on approach to Nuclear Medicine Methodology and Nuclear Medicine Instrumentation. Student will utilize the instrumentation involved in delivering nuclear medicine to the patient. Prerequisite: Program Admission.

Pre or Corequisite: NMT2130 NMT2485 NMT2834

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=29.00

NMT2706L NUCLEAR MEDICINE LABORATORY II (1)

Practical hands-on approach to Quality/Assurance. Student will utilize the instrumentation involved in delivering nuclear medicine services to the patient. Prerequisite: NMT2130 NMT2485 NMT2705L

Pre or Corequisite: NMT2102 NMT2573 NMT2844

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

NMT2834 NUCLEAR MEDICINE CLINICAL EDUCATION (2)

Continuation of NMT1824 with a progression of experience from the elementary aspects to moderately refined procedures. Prerequisites: Program Admission.

Pre or Corequisite: NMT2130 NMT2485 NMT2705L

Lec Hrs=0 Lab Hrs=0 Oth Hrs=256 Fees=37.95

NMT2844 NUCLEAR MEDICINE CLINICAL EDUCATION (3)

Continuation of NMT2834; student will be exposed to computer enhanced imaging studies and interpretation. Prerequisite: NMT2130 NMT2485 NMT2705L

Lec Hrs=0 Lab Hrs=384 Oth Hrs=0 Fees=45.05

NMT2854 NUCLEAR MEDICINE CLINICAL EDUCATION (3)

Continuation of NMT2844; student will perform complex patient examinations and unassisted routine procedures. Prerequisite: NMT2102 NMT2573 NMT2706L

Pre or Corequisite: NMT2061

Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

NMT2863 NUCLEAR MEDICINE CLINICAL EDUCATION (2)

Prepares students to make dose calculations, prepare radiopharmaceuticals, perform in-vivo diagnostic procedures,
The second in a series of clinical courses for the beginning nursing student. Initially skills are learned in simulation lab and then the student is introduced to direct patient care in an inpatient setting. This course also includes simulation experience and observation of the nurse's role in assisting a person meet these needs, while sensitive to cultural diversity, human dignity, and developmental progression.

Prerequisite: CHM1032 ENC1101
Pre or Corequisite: BSC1086 BSC1086L NUR1021L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR1020L NURSING PROCESS I CLINICAL LAB (2)
A clinical course for the beginning nursing student. The course provides the student with the fundamentals of nursing including such basic skills as health assessment, health teaching, and legal aspects of nursing practice, communication techniques, the nursing process, and the role of the nurse as a member of the health care team. This course also includes explanation of specific physiological and psychological human needs as hygiene, sleep and rest, sensory, grief and loss, and self-concept and the nurse's role in assisting a person meet these needs, while sensitive to cultural diversity, human dignity, and developmental progression.

Prerequisite: MTB1370 NUR1020 NUR1210
Lec Hrs=0 Lab Hrs=0 Oth Hrs=112 Fees=95.05

NUR1220 HEALTH ALTERATIONS I (3)
Health Alterations I is a course designed to provide the student with knowledge of alterations of ingestion, digestion, metabolism, and elimination throughout the life cycle. The major focus is directed at meeting the health care needs of the adult and pediatric patient through utilization of the nursing process. The student will be expected to integrate principles of anatomy, physiology, and pathophysiology of the digestive and genito urinary systems into the nursing process.

Components of pharmacology and nutrition will be included in this course. Consideration will also be given to the psychosocial aspects of the wellness/illness continuum.

Prerequisite: BSC1086 BSC1086L NUR1210
Pre or Corequisite: NUR1020L NUR1210
Lec Hrs=48 Lab Hrs=0 Oth Hrs=112 Fees=95.05

NUR1220L HEALTH ALTERATIONS I CLINICAL LAB (2)
Health Alterations I Clinical Lab is a course designed to provide the student with the opportunity to utilize the nursing process in the care of patients with alterations of ingestion, digestion, metabolism, and elimination throughout the life cycle. The student will be expected to correlate theoretical knowledge and scientific principles with clinical situations, observational experiences, written assignments and performance exams may be included in this course.

Prerequisite: BSC1086 BSC1086L
Pre or Corequisite: NUR1220
Lec Hrs=0 Lab Hrs=0 Oth Hrs=112 Fees=120.05

NUR1271 COMM HEALTH: FOUNDATIONS OF COMMUNI (3)
This course is designed to provide the health professional concepts of community health including basic foundations of health care. Topics to be covered include concepts of health, wellness and illness, philosophy of community health, holistic health care, influence of culture, and the role of the health professional.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=11.10

NUR1272 COMMUNITY HEALTH: COMMUNITY HEALTH (3)
This course is designed to provide the health professional the concepts of community health care including assessment of the client, role of the family, problems of families across the life span, community health services, environmental and occupational health, communicable diseases and crisis intervention.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=11.10

NUR273 COMM HEALTH: HEALTH PROMOTION & PRE (3)
This course is designed to provide the health professional the concepts of community health. Focus for this course: risk appraisal and management, strategies in promoting health, techniques for client education, marketing, evaluation, and problems of the elderly.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=11.10

www.broward.edu
Catalog 2007-2008
Broward Community College
NUR1310 PEDIATRIC NURSING (3)
This pediatric course is designed to provide an understanding of growth and development through the stages of childhood and the application of the nursing process to these stages.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1310L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=112 Fees=120.05

NUR1301L PEDIATRIC NURSING LAB (2)
This clinical course provides the student with an understanding of growth and development through the stages of childhood and the application of the nursing process to these stages.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1310
Lec Hrs=0 Lab Hrs=0 Oth Hrs=112 Fees=120.05

NUR1420L TRANSITION HEALTH CARE OF WOMEN CLIN (1)
This course is for the LPN student and will enable students to apply the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period.
Pre or Corequisite: NUR1421
Lec Hrs=0 Lab Hrs=0 Oth Hrs=56 Fees=122.05

NUR1421 HEALTH CARE OF WOMEN (3)
Health care of women is a course designed to provide the student with the knowledge of the reproductive system and health care needs of women throughout the life cycle. The major focus is directed to the childbearing portion of the life cycle. The student is expected to utilize the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1421L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR1421L HEALTH CARE OF WOMEN CLINICAL LABOR (2)
Health Care of Women is a clinical course designed to provide the student with the knowledge of the reproductive system and health care needs of women throughout the life cycle. The major focus is directed to the childbearing portion of the life cycle. The student is expected to utilize the nursing process in providing nursing care to the maternity patient, her family, and the fetus/newborn during antepartal, intrapartal and postpartal periods. Consideration is given to the multiple factors which complicate the normal physiological or psychological process of the childbearing period.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1421L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=112 Fees=120.05

NUR1524 NURSING CARE OF THE PSYCHIATRIC PAT (3)
This course provides the student with a definition and understanding of psychiatric nursing. The nursing process is utilized to present pathological conditions. Therapeutic modalities are included.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1524L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR1524L NURSING CARE OF THE PSYCHIATRIC PAT (2)
This clinical course provides the student with a definition and understanding of the psychiatric nursing. The nursing process is utilized to present pathological conditions. Therapeutic modalities are included.
Prerequisite: NUR1220 NUR1220L
Pre or Corequisite: NUR1524
Lec Hrs=0 Lab Hrs=0 Oth Hrs=112 Fees=120.05

NUR1731L TRANSITION PEDIATRIC NURSING CLINIC (1)
This clinical course provides the LPN student with an understanding of growth and development through the stages of childhood and the application of the nursing process through these stages.
Prerequisite: NUR2000L NUR2020
Pre or Corequisite: NUR1310
Lec Hrs=0 Lab Hrs=0 Oth Hrs=56 Fees=122.05

NUR2000L TRANSITION NURSING I CLINICAL LAB (2)
The student shall be responsible for providing care of a selected group of patients, being aware of legal and ethical issues pertinent to their care and effecting change as necessary. It will be essential for the student to examine his/her own values and methods of communication in attempting to problem-solve patient situations. Observational experiences, written assignments, and performance exams may be included in this course.
Prerequisite: BSC1086 BSC1086L CHM1032 ENC1101
Pre or Corequisite: MTB1370 NUR2020
Lec Hrs=0 Lab Hrs=0 Oth Hrs=112 Fees=122.20

NUR2020 TRANSITION NURSING II (2)
This theoretical course for the LPN covers the following concepts: nursing process, legal aspects of nursing, communication techniques, computer concepts, and the role of the ADN registered nurse.
Prerequisite: BSC1086 BSC1086L CHM1032 ENC1101
Pre or Corequisite: MTB1370 NUR2000L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2062 HEALTH ASSESSMENT OF THE ADULT CLIN (5)
This course focuses on assessment of the adult client as he or she fluctuates on the wellness illness continuum. Techniques of physical assessment will be systematically taught in a head to toe approach. The skill of concisely recording the findings will also be included. 80 hrs lec. Term I and II.
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2201 TRANSITION NURSING II (5)
This theoretical course for the LPN covers the following concepts: application of the nursing process in the care of clients with alterations of mobility, skin integrity, nutrition, metabolism, and neuro-endocrine regulatory mechanisms.

**Prerequisite:** BSC1086 BSC1086L NUR2000L NUR2020

**Pre or Corequisite:** NUR2202

**Lec Hrs=80 Lab Hrs=0 Oth Hrs=112 Fees=97.05**

**NUR2202 TRANSITION NURSING III**

This theoretical course for the LPN covers the following concepts: application of the nursing process in the care of clients with alterations of circulatory, respiratory, urinary, and endocrine functions.

**Prerequisite:** BSC1086 BSC1086L NUR20201 NUR20201L

**Pre or Corequisite:** NUR2202L

**Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**NUR2202L TRANSITION NURSING III LAB**

This clinical lab for the LPN will provide the opportunity to apply the nursing process in the care of adult patients with alterations in mobility, skin integrity, neuro-regulatory mechanisms, and metabolic/endocrine/gastrointestinal functions.

**Prerequisite:** BSC1086 BSC1086L NUR20201 NUR20201L

**Pre or Corequisite:** NUR2202L

**Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=97.05**

**NUR2221 HEALTH ALTERATIONS II**

In this course the student will be responsible for principles of alteration in mobility, skin integrity, and neurological functioning. Concepts of rehabilitation will be emphasized.

**Prerequisite:** APB1600 NUR1220 NUR1220L NUR1310 NUR1310L NUR1421 NUR1421L NUR1524 NUR1524L

**Pre or Corequisite:** NUR2221L

**Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**NUR2221L HEALTH ALTERATIONS II LAB**

In this course the student will be responsible for applying the nursing process to assigned patients with alterations in mobility, skin integrity and neurological functions. This experience will require both clinical and written assignments. Evaluation will be based on their application of the nursing process to assigned patients.

**Prerequisite:** NUR1220 NUR1220L NUR1310 NUR1310L NUR1421 NUR1421L NUR1524 NUR1524L

**Pre or Corequisite:** NUR2221L

**Lec Hrs=48 Lab Hrs=0 Oth Hrs=112 Fees=120.05**

**NUR2222 HEALTH ALTERATIONS III**

This course is designed to provide the student with the knowledge necessary to implement the nursing process on patients with cardiopulmonary dysfunction throughout the life cycle. The focus is the pathophysiology, common medical, diagnostic and treatment modes, nursing assessments and interventions necessary to treat those patients. The students will be responsible for reviewing anatomy and physiology, pharmacology, pediatric and psychiatric principles as they apply to this course.

**Prerequisite:** NUR2221 NUR2221L

**Pre or Corequisite:** NUR2222L

**Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**NUR2222L HEALTH ALTERATIONS III LAB**

In this course the student will be responsible for applying the nursing process to assigned patients with alterations in cardiopulmonary functioning. This experience will require both clinical and written assignments. Evaluation will be based on the application of the nursing process to assigned patients.

**Prerequisite:** NUR2221 NUR2221L

**Pre or Corequisite:** NUR2222

**Lec Hrs=80 Lab Hrs=0 Oth Hrs=112 Fees=120.05**

**NUR2270 REFRESHER NURSE UPDATE**

This course has been developed to review current theory in relation to nursing practice so that the inactive R.N. may be able to move with confidence into a staff nurse orientation and return to practice. The material presented will emphasize trends in nursing practice and nursing education today, changes in the fundamentals of nursing skills necessary for providing effective nursing care in a variety of situations. A reasonable comprehensive review of the up-to-date nursing management of the adult patient with a medical surgical problem will be presented. Prerequisite: Current Florida RN license, current BCLS-C certificate, professional liability insurance, physical examination and recency of work experience.

**Pre or Corequisite:** NUR2270L

**Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=12.00**

**NUR2270L REFRESHER NURSE UPDATE PRACTICUM**

This course will provide various laboratory and clinical experiences for the R.N. in providing patient care, team leading, and exposure to nursing care in the specialty areas.

**Pre or Corequisite:** NUR2270L

**Lec Hrs=0 Lab Hrs=0 Oth Hrs=160 Fees=70.05**

**NUR2274 EMERGENCY NURSING**

This course has been developed to meet the needs of the emergency department or critical care nurse in supplementing basic nursing in the emergency area. Prerequisites: Florida RN License, Basic Life Support course (Healthcare Provider Level).

**Corequisite:** NUR2274L

**Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00**

**NUR2274L EMERGENCY NURSING PRACTICUM**

This course will provide the health professional with an opportunity for practice of basic skills needed in basic emergency nursing care and the application of theory in the laboratory, community emergency departments and emergency medical services mobile vehicles. Prerequisites: Florida RN License, Basic Life Support course (Healthcare Provider Level).

**Corequisite:** NUR2274

**Lec Hrs=0 Lab Hrs=0 Oth Hrs=240 Fees=20.05**

**NUR2275 TRANSITION TO HOME HEALTH NURSING**
This course is designed for the practicing RN who is interested in moving from the acute care or long term care setting into home health nursing. This course is open to registered nurses with at least one year acute care experience who are currently employed.

Prerequisite: CAE0062 CAE0216
Pre or Corequisite: NUR2275L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2275L TRANSITION TO HOME HEALTH NURSING

This clinical course is designed for the practicing RN who is interested in moving from the acute care or long term care setting into home health nursing. The course is open to registered nurses with at least one year acute care experience who are currently employed or who have been employed within the past six months.

Prerequisite: Florida Nursing License, minimum 1 year current acute experience.
Pre or Corequisite: NUR2275
Lec Hrs=0 Lab Hrs=0 Oth Hrs=64 Fees=20.05

NUR2292 INTRODUCTION TO CRITICAL CARE NURSE

This course is designed for the registered nurse desiring to enter the area of critical care and who is currently working in another area. It is not designed for nurses currently working in critical care. The course will include topics related to intensive nursing care of patients with pulmonary, neurology, cardiovascular, renal, and metabolic disorders, as well as psychological needs of critically ill patients. Prerequisites:
Florida RN License; Basic Life Support course (Healthcare Provider Level); Basic Arrhythmia course or challenge.
Corequisite: NUR2292L
Lec Hrs=128 Lab Hrs=0 Oth Hrs=0 Fees=8.95

NUR2292L CRITICAL CARE NURSING CLINICAL LAB

The clinical course will be provided in a local hospital where the entry-level critical care nurse begins skill building and bedside activities with an assigned preceptor to correlate to didactic theory. The RN will incorporate nursing assessment, implementation and interventions related to the critical care patient from admission to discharge or end-of-life. Skill building activities focus on critical care policies, procedures and protocols required for critical care nursing. Bedside activities focus on organizational skills in performing patient assessment, interventions and documentation in the medical record. Pre-Requisite: Florida RN License; Basic Life Support course (Healthcare Provider Level); Basic Arrhythmia course or challenge.
Corequisite: NUR2292L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=240 Fees=20.05

NUR2293 BASIC PERIOPERATIVE NURSING

This program is designed for the learner who is registered nurse with minimal or no operating room experiences. The goal of the program is to prepare the R.N. for initial employment as an effective member of the surgical team in both the circulator and scrub roles, thus providing quality perioperative nursing care. This theory course will be taught concurrently with the basic perioperative nursing practicum. Pre or Corequisite: NUR2293L
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=12.00

NUR2293L BASIC PERIOPERATIVE PRACTICUM

This course is designed to provide laboratory practice and clinical experience for nursing in the operating room, community surgical centers or clinics.
Pre or Corequisite: NUR2293
Lec Hrs=0 Lab Hrs=0 Oth Hrs=160 Fees=70.05

NUR2294 CORONARY CARE NURSING

A comprehensive cardiac course to review and add to the scientific knowledge needed by the coronary care nurse in their practice. Specific skills and competencies shall be developed in the use of equipment and methods of care. Guidelines shall be presented for guiding other members of the health care team in the effective application of the concepts of coronary care. Designed to foster an attitude of striving for excellence in knowledge. Methods and techniques were developed by the Florida Regional Medical Program as a standard. A Coronary Care course certificate is awarded upon successful completion. This is for the professional nurse. 144 hrs. Lec.
Lec Hrs=144 Lab Hrs=0 Oth Hrs=0 Fees=11.10

NUR2297 CARDIAC NURSING: BASIC ARRHYMIA

This course will be taught on the Internet in the Virtual Classroom-Web CT and is designed to enhance learning for the licensed health care professionals using a non-traditional teaching format. Two scheduled classroom sessions will consist of the Orientation to Web-based ECG learning and the written-short answer Final Prototed ECG Exam. The web-based instruction will provide basic yet comprehensive information in the fundamentals of cardiac arrhythmias. Content will include anatomy and physiology, basic rate and rhythm calculations, cardiac monitoring as well as the identification of non-lethal and lethal producing arrhythmias. Prerequisites: Florida RN License; Basic Life Support course (Healthcare Provider Level).
Corequisite: NUR2297L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2297L CARDIAC NURSING: BASIC ARRHYMIA

The clinical course will be provided in a local hospital where the new telemetry nurse will perform the role of monitor technician, to reinforce the didactic concepts learned in the Basic Arrhythmia course. The RN will incorporate nursing interventions related to telemetry patients from the admission process, trouble shooting ECG transmission, to medication administration. Course activities focus on telemetry/progessive care nursing of the adult patient requiring cardiac monitoring.
Prerequisites: Florida RN license, Basic Life Support course (Healthcare Provider Level).
Corequisite: NUR2297L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=80 Fees=20.05

NUR2391 CARE OF THE CRITICALLY ILL NEWBORN

This course will provide an introduction to the basic needs of the sick or compromised infant and the rationale/theory behind prescribed treatments and care. Units include: thermal environment, assessment, CPR, respiratory disorders, hematological disorders, maternal infant bonding, the dying infant, GI disturbances, oxygen administration, neonatal sepsis, blood gas analysis, cardiac anomalies, nutrition, pharmacology, lab studies, seizure disorders and mechanical ventilation. (target audience: term and level II nursery
personnel, labor and delivery nurses and nurses seeking entry into neonatal areas.)
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=26.10

NUR2392 CRITICAL CARE OF THE PEDIATRIC CLINIC
(5)
This 5 credit course is designed to prepare the professional nurse to enter into practice in the pediatric intensive care setting. The program focuses on assessment skills of the various body systems, pharmacology, and nursing management of the critically ill child. Prerequisite: current Florida nursing license, BCLS-C (Basic rescue certification).
Lec Hrs=80 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2801 TRANSITION NURSING IV (3)
This theoretical course for the LPN covers the following concepts: leadership, team management, legal ethical situations, problem solving techniques, interviewing techniques and emergency nursing. Pre or Corequisite: NUR2801L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2801L TRANSITION NURSING IV CLINICAL LAB
(2)
This course for the LPN provides clinical opportunities to develop leadership skills, team management skills, and legal, ethical responsibilities. Pre or Corequisite: NUR2801
Lec Hrs=0 Lab Hrs=112 Oth Hrs=0 Fees=122.20

NUR2810 TRENDS, PRACTICES, AND ROLES (3)
This course is designed to provide the knowledge necessary to move from the role of a student to that of a graduate nurse. The focus is directed toward the legal, ethical and professional responsibilities of the nurse in managerial and coordinating roles. Prerequisite: NUR2222 NUR2222L
Pre or Corequisite: NUR2810L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2810L TRENDS, PRACTICES, AND ROLES CLINIC
(2)
This course is designed to provide the student with the knowledge necessary to implement the nursing process on patients with cardiopulmonary dysfunctions throughout the life cycle. The focus is the pathophysiology, common medical, diagnostic and treatment modes, nursing assessments and interventions necessary to treat those patients. The students will be responsible for reviewing anatomy and physiology, pharmacology, pediatric and psychiatric principles as they apply to this course. Prerequisite: NUR2222 NUR2222L
Pre or Corequisite: NUR2810
Lec Hrs=0 Lab Hrs=112 Oth Hrs=120.05

NUR2930 COMPARATIVE HEALTH CARE SYSTEMS
(3)
This course provides an opportunity for health care professionals and educators to compare health care systems of other countries with that of the United States. Health care systems, variation in patient care, education of health practitioners facilities and the role of international agencies will be studied.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2940 NURSING TRANSITION FOR THE NEW NURS
(4)
This course is for the new registered nurse who seeks to gain additional theoretical experience in the application of nursing knowledge in the care of the acutely ill hospitalized patient.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2940C RESPIRATORY CARE CROSS TRAINING FOR
(12)
This course will provide nurses with essential principles of respiratory care, to function in their new roles as a multi-skilled healthcare professional.
Lec Hrs=60 Lab Hrs=0 Oth Hrs=168 Fees=26.10

NUR2941C RESPIRATORY CARE FOR NURSES: OXYGEN
(2)
This course will teach the students safe handling of oxygen equipment along with a working knowledge of oxygen analyzers. It will also teach proper administration of medications via Twin Jet nebulizer, metered dose inhaler (MDI) and incentive spirometry treatments.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=28 Fees=52.05

NUR2941L NURSING TRANSITION FOR THE NEW NURS
(1)
This course is for the new registered nurse who seeks to gain additional clinical experience in the application of nursing knowledge in the care of the acutely ill hospitalized patient. Emphasis in the clinical area will be on critical thinking in the decision making process.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.05

NUR2942C RESPIRATORY CARE FOR NURSES: CHEST
(2)
This course will demonstrate safe and effective technique in the performance of I.P.P.B. therapy as well as CPT treatments, including manual and mechanical techniques. It will also teach the students to demonstrate proficiency in adjunct techniques of CPT.
Lec Hrs=8 Lab Hrs=0 Oth Hrs=36 Fees=27.05

NUR2943C RESPIRATORY CARE FOR NURSES: PROTOC
(1)
This course will focus on the proper use of ultrasonic nebulizers, specimen collection and the safe administration of aerosolize medication.
Lec Hrs=8 Lab Hrs=0 Oth Hrs=0 Fees=0.00

NUR2944C RESPIRATORY CARE FOR NURSES: PROTOC
(2)
This course will focus on respiratory care protocols, suctioning and the proper maintenance of tracheostomy and endotracheal tubes.
Lec Hrs=16 Lab Hrs=37 Oth Hrs=0 Fees=27.05

NUR2945L EMERGENCY NURSING: CLINICAL PRACTI
(1)
The clinical course will be provided in a local hospital and pre-hospital environment. The course is offered for the entry-level emergency department (ED) registered nurse (RN) who requires additional remediation or for a returning nurse who needs minimal skill building and emergency department activities with an assigned preceptor to correlate didactic theory. The RN will incorporate preceptor to correlate didactic theory. The RN will incorporate
NUR2946 GRADUATE NURSE INTERNSHIP (1)
This course will cover the theory application of skills in the
care of patients. The content will cover content beyond basic
educational offerings to intern nurses.
Pre or Corequisite: NUR2946
Lec Hrs=16 Lab Hrs=0 Oth Hrs=192 Fees=22.05

NUR2946L NURSE INTERNSHIP CLINICAL LAB
This course will cover the clinical application of skills in the
care of patients. The content will cover content beyond basic
clinical experiences to intern nurses.
Pre or Corequisite: NUR2946
Lec Hrs=0 Lab Hrs=0 Oth Hrs=192 Fees=22.05

NUR2947L CRITICAL CARE NURSING: CLINICAL
PR (1)
The clinical course will be provided in a local hospital where
the entry-level critical care nurse requires additional
remediation of for a returning nurse who needs minimal skill
building and bedside activities with assigned preceptor to
correlate to didactic theory. The RN will incorporate nursing
assessment, implementation and interventions related to the
critical care patient from admission to discharge or end-of-
life. Skill building activities focus on critical care policies,
procedures and protocols required for critical care nursing.
Bedside activities focus on organizational skills in performing
patients assessments, interventions and documentation in the
medical record.
Corequisite: NUR2292
Lec Hrs=80 Lab Hrs=0 Oth Hrs=20.05

OCA0450 SPREADSHEET AND DATABASE
APPLICATIO (2)
The purpose of this course is to provide an introduction to
computers and their significance in today's business
workplace. An emphasis is placed on the use of spreadsheet
software and its importance in compiling financial reports
and statistical data. This course also acts as a foundation for
all business education programs as it incorporates
keyboarding, mathematical calculations, consumer
economics, human relations, and job application procedures.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OCA0451 SPREADSHEET AND DATABASE
APPLICATIO (2)
The purpose of this course is to provide an introduction to
computers and to develop entry- level skills for computer-
related occupations using spreadsheets and databases and
text-editing software. This course also acts as a foundation for
all business education programs as it incorporates
keyboarding, mathematical calculations, consumer
economics, human relations, and job application procedures.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OCE1801 INTRODUCTORY OCEANOGRAPHY (3)
An integration of the four classic disciplines of the ocean
sciences: geological oceanography, chemical oceanography,
physical oceanography, and biological oceanography. Course
will stress the interdisciplinary nature of the ocean sciences
and focus on the basic principles governing these disciplines,
and the effect of each on man. Meets Area 4B general
education requirements for the A.A. Meets Areas 4 or 5
general education requirements for the A.S. degree. Terms I,
II, and III. Placement by Testing Department or
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OCE1801L OCEANOGRAPHY LABORATORY (1)
Laboratory methods for the Ocean Sciences. Meets area 4C
general education requirements for the A.A. degree. Meets
The 4 or 5 general educational requirements for the A.S.
degree. One, two-hour laboratory weekly. Special fee is
charged. Placement by Testing Department or
Pre or Corequisite: OCE1801
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

OFT0010 OFFICE SKILLS TRAINING I (2)
The purpose of this course is to prepare students for
employment as general office clerks, typists, file clerks, office
systems clerks, government records clerks, and clerical office
trainees. Topics include typing, filing, calculation skills,
telephone skills, and word processing.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OFT0011 OFFICE SKILLS TRAINING II (2)
The purpose of this course is to prepare students for
employment as clerk typists, clerks, information clerks, data
entry clerks, coding clerks, invoicing clerks, clerk typist
assistant, keyboarding clerks, or to provide supplemental
training for persons previously or currently employed in this
occupational area.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OPT1110 PHYSICAL AND GEOMETRIC OPTICS (3)
This course provides a review of light energy as it passes
through air, plastic, glass and water with emphasis on how
light is modified by prisms and curved lens surfaces. These
principles relate to the effect these ophthalmic devices have
in correcting the errors of human vision.
Pre or Corequisite: OPT1110L OPT1210 OPT1330
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT1110L PHYSICAL AND GEOMETRIC OPTICS
LAB (1)
This course provides the opportunity for students to
demonstrate, measure and explore the behavior of light
energy as it passes through prisms and curved lens surfaces.
Students will demonstrate the principles of ophthalmic
devices and how they correct the errors of human vision.
Pre or Corequisite: OPT1110 OPT1210 OPT1330
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=10.00

OPT1150 OPHTHALMIC LENSES (2)
Characteristics of single vision and multifocal lens reference
points for proper lens selection to meet visual needs of the
patients. Emphasis is on accurate positioning of the optical
centers and selected multifocal addition designs. ANSI and
F.D.A. standards; prescription ordering; verification
procedures; and absorptive lenses are presented. Low vision
devices and occupational specialty lenses will be discussed.
Prerequisite: OPT1110 OPT1110L OPT1210
Corequisite: OPT1150L OPT2090
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT1150L OPHTHALMIC LENSES LAB (2)
This course provides the opportunity for students to gain
hands on experience in the accurate positioning of the optical
centers and selected multifocal addition designs. ANSI and
F.D.A. standards, prescription ordering and verification
procedures will be applied to patient jobs. Emphasis will be
placed on the use of the manual and automated Lensometer.
Fitting of low vision devices and occupational specialty lenses will be discussed.
Prerequisite: OPT1110 OPT1110L OPT1210
Pre or Corequisite: OPT1110
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=10.00

OPT2120 ANATOMY AND PHYSIOLOGY OF THE EYE (3)
This course provides a review of the structure and function of the systems of the human body, emphasizing the anatomy of the human eye. Visual recognition of common eye disorders and refractive disorders are discussed.
Pre or Corequisite: OPT1110 OPT1110L OPT1330
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2130 ORIENTATION TO VISION CARE (2)
This course reviews the techniques needed in a clinical environment for the collection of patient case history, entrance visual acuity, basic visual skills of ocular motility and accommodation, color discrimination, depth perception and binocular fusion. Emphasis is placed on medical terminology as it relates to the visual system.
Pre or Corequisite: OPT1110 OPT1110L OPT1210
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2140 OPHTHALMIC DISPENSING (2)
This course reviews the theory and terminology of ophthalmic frame materials, multifocal lenses, including progressive power and occupational bifocals and high index lenses. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.
Prerequisite: OPT1150 OPT1150L OPT2090 OPT2879
Pre or Corequisite: OPT1450L OPT2500 OPT2500L OPT2800L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2140L OPHTHALMIC DISPENSING LAB (2)
This course provides the opportunity for students to practice ophthalmic dispensing. Measurement and adjusting ophthalmic frame materials, multifocal lens, occupational bifocals, high index lenses and low vision devices will be emphasized. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for the proper frame and lens selection are highlighted.
Prerequisite: OPT1110 OPT1110L OPT2090 OPT2879
Pre or Corequisite: OPT1450L OPT2500 OPT2500L OPT2800L
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=10.00

OPT2160 OPHTHALMIC MANAGEMENT POLICY AND PR (3)
This course provides a review of procedures and terminology in correspondence, legal and ethical principles, inter-and intra-professional relationships, and retail office management. The history of opticianry, optometry and ophthalmology is traced. Special emphasis is on a comprehensive review of the curriculum. The student will be required to present oral and written reports.
Prerequisite: OPT2800L OPT2875
Pre or Corequisite: OPT2876
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2200 ORIENTATION TO VISION CARE CLINIC (1)
This course provides an introduction to the Broward Community College Vision Care Clinic. Students will apply technical skills acquired in previous course work. Recording of clinical data, administrative procedures and techniques in patient handling under the close supervision of clinic instructors and 5th semester students.
Prerequisite: OPT1110 OPT1210 OPT1330
Lec Hrs=0 Lab Hrs=0 Oth Hrs=32 Fees=0.00

OPT2222 OCULAR PATHOLOGY AND PHARMACOLOGY (2)
Theory and terminology of visual and systemic disorders that effect vision. Introduces the student to the general concepts of disease and the processes by which diseases evolve. The specific disorders that may occur in various parts of the eye and ocular adnexa are discussed in detail. The student will become familiar with the Physicians Desk Reference (PDR), diagnostic, and therapeutic pharmaceutical agents used in vision care.
Corequisites: OPT2350, OPT2801.
Prerequisite: OPT2375 OPT2800L
Pre or Corequisite: OPT2350 OPT2801L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2223 OCULAR PATHOLOGY AND PHARMACOLOGY I (2)
Continuation of OPT2222: Theory and terminology of visual and systemic disorders that effect vision. Introduces the student to the general concepts of disease and the processes by which diseases evolve. The specific disorders that may occur in various parts of the eye and ocular adnexa are discussed in detail. The student will become familiar with diagnostic and therapeutic pharmaceutical agents used in vision care.
Prerequisite: OPT2222
Pre or Corequisite: OPT2351 OPT2802
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2287 OPHTHALMIC MEDICAL PRACTICUM 3 (4)
Externship in an approved ophthalmic practice. This is the most advanced clinical education and successful completion will ensure that the student is competent upon graduation to assume all of the responsibilities required of an Ophthalmic Technician. The student will enhance their knowledge of advanced duties and responsibilities an ophthalmic medical office. Emphasis will be placed on continuing the development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. Skills in assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting will be obtained. This course is required to fulfill requirements for clinical experience by the national accrediting agencies.
Prerequisite: OPT2223 OPT2351 OPT2802 OPT2941
Lec Hrs=0 Lab Hrs=240 Oth Hrs=20.05

OPT2350 ADVANCED CLINICAL PROCEDURES I (1)
Theory and terminology of advanced ophthalmic medical procedures. Students will learn ocular photography, visual field testing, and internal and external examination procedures normally performed by an ophthalmic technician.
Prerequisite: OPT2375 OPT2800L
Pre or Corequisite: OPT2222 OPT2801L
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2351 ADVANCED CLINICAL PROCEDURES II (2)
Continuation of OPT2350: Students will be introduced to the theory and terminology of Topography, Tonography; Flouorescein Angiography, advanced visual fields, outpatient
surgical assisting, and other advanced ophthalmic medical procedures.
Prerequisite: OPT2222 OPT2350 OPT2801L OPT2940
Pre or Corequisite: OPT2223 OPT2802 OPT2941
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2375 REFRACTOMETRY (2)
This course reviews the theory and terminology used in determining the powers of corrective lenses in relation to a patient's refractive error. Emphasis will be placed on the phoroptor, retinoscope, and automated refraction instruments. Problems associated with the change in refractive powers will also be discussed.
Prerequisite: OPT1110 OPT1110L OPT1210
Pre or Corequisite: OPT1150 OPT1150L OPT1330
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2420 EYEWEAR FABRICATION I (1)
This course presents a review of the theory of ophthalmicsurfacing and finishing procedures. Students acquire knowledge to arrange single vision and multifocal lenses, use sensometers and lens clocks, operate project-o-markers for lens layout, select or fabricate frame patterns, and utilize several systems for surfacing and edging lenses for ophthalmic frames.
Prerequisite: OPT2500 OPT2800L
Pre or Corequisite: OPT2420L
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2420L EYEWEAR FABRICATION I LAB (2)
In this laboratory course students will gain practical experience in ophthalmic surfacing and finishing procedures. Students will fabricate single vision and multifocal lenses: use sensometers and lens clocks: operate project-o-markers for lens layout: select or fabricate frame patterns: and utilize several systems for surfacing and edging lenses for ophthalmic frames.
Prerequisite: OPT2500L OPT2879
Pre or Corequisite: OPT2420
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=50.00

OPT2421 EYEWEAR FABRICATION II (1)
Advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Theory of ophthalmic surfacing and finishing procedures from written specifications ensuring that current ANSI and FDA standards are exceeded.
Prerequisite: OPT2420 OPT2420L
Pre or Corequisite: OPT2421L
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2421L EYEWEAR FABRICATION II LAB (3)
Laboratory for OPT2421. Students will fabricate eyewear for the patients of the Vision Care Clinic using advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Advanced techniques in the operation and maintenance of manual and computerized equipment.
Prerequisite: OPT2420 OPT2420L
Pre or Corequisite: OPT2421
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=50.00

OPT2460 OPHTHALMIC DISPENSING CLINIC I (2)
Development of skills in the fitting and dispensing of ophthalmic lenses. Students will work under the close supervision of clinical staff in dispensing glasses to patients of the Vision Care Clinic. Emphasis will be placed on techniques used to dispense new technology in ophthalmic frame materials: multifocal lenses including progressive power and occupational bifocals: and high index lenses. The process of analyzing the patient's prescription and identifying the patient's specific visual needs for proper frame and lens selection is highlighted.
Prerequisite: OPT2375 OPT2500 OPT2800L
Pre or Corequisite: OPT2420 OPT2830L OPT2875
Lec Hrs=0 Lab Hrs=0 Oth Hrs=80 Fees=11.10

OPT2461 OPHTHALMIC DISPENSING CLINIC II (3)
This is a continuation of OPT2493L. It involves advanced skills in the fitting and dispensing of ophthalmic lenses. Students will work under the supervision of clinical staff in dispensing glasses to patients of the Vision Care Clinic. Students will practice advanced techniques used to dispense new technology in ophthalmic frame materials, multifocal lenses including progressive power and occupational bifocals, high index lenses, and low vision devices.
Preor Corequisites:OPT2421, OPT2831, OPT2876.
Prerequisite: OPT2420 OPT2460 OPT2875
Pre or Corequisite: OPT2421 OPT2831L OPT2876
Lec Hrs=0 Lab Hrs=120 Oth Hrs=120 Fees=8.95

OPT2500 CONTACT LENS THEORY (2)
This course provides a review of the theory and terminology of contact lenses including fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.
Prerequisite: OPT1150 OPT1450
Pre or Corequisite: OPT2500L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OPT2500L CONTACT LENS THEORY LAB (2)
This course provides a review of the practical procedures used to apply technical skills of contact fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.
Prerequisite: OPT1150L OPT1450L
Pre or Corequisite: OPT2500L
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=25.00

OPT2800L VISION CARE CLINIC I (2)
This course provides a review of the practical procedures used to apply technical skills of contact fitting, application and removal procedures, care of soft and hard lenses, verification of contact lens prescription and "in-office" modification of contact lenses.
Prerequisite: OPT1150 OPT1150L OPT1450L
Pre or Corequisite: OPT2800L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=80 Fees=20.05

OPT2801L VISION CARE CLINIC II (3)
Development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. The student will follow the patient through the entire cycle of vision care under the supervision of the clinical staff.
Prerequisite: OPT2375 OPT2500L OPT2800L
Pre or Corequisite: OPT2222 OPT2350L OPT2940
Lec Hrs=0 Lab Hrs=160 Oth Hrs=20.05

OPT2802 VISION CARE CLINIC III (3)
Continuation of OPH2801L: Development of additional skills in tonometry, visual fields, A and B scan ultrasound, photo-documentation, vision therapy, low vision, aseptic techniques, eye emergencies, assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting. The student will follow the patient through the entire cycle of vision care under the supervision of the clinical staff.

Prerequisite: OPT2222 OPT2350 OPT2801L, OPT2940
Pre or Corequisite: OPT2223 OPT2351 OPT2941
Lec Hrs=0 Lab Hrs=0 Oth Hrs=160 Fees=20.05

OPT2830L CONTACT LENS CLINIC I (3)
Assist eye care specialists in the fitting and follow-up care of rigid and soft contact lenses for patients referred from the Vision Care Clinic. Familiarization with over-refraction, instructions for lens handling, cleaning, care and storage, and basic contact lens pathology.

Prerequisite: OPT2500 OPT2500L OPT2800L
Pre or Corequisite: OPT2420 OPT2420L OPT2875
Lec Hrs=0 Lab Hrs=0 Oth Hrs=120 Fees=20.05

OPT2831L CONTACT LENS CLINIC II (2)
This course involves the use of contact lens instruments to confirm all parameters for replacement lenses. Particular attention is given to the patient who is having problems with contact lenses after long-term wear due to corneal changes and sensitivity to solutions. Advanced over-refraction and contact lens fitting procedures are practiced.

Prerequisite: OPT2420L OPT2460 OPT2830L
Pre or Corequisite: OPT2421 OPT2461 OPT2876
Lec Hrs=0 Lab Hrs=0 Oth Hrs=80 Fees=20.05

OPT2875 OPHTHALMIC DISPENSING PRACTICUM I (3)
In this laboratory course students will fabricate eyewear for the patients of the Vision Care Clinic using advanced techniques in measurement, fabrication and verification of single vision and multifocal lenses. Advanced techniques in the operation and maintenance of manual and computerized equipment.

Prerequisite: OPT2375 OPT2500 OPT2800L, OPT2879
Pre or Corequisite: OPT2420 OPT2420L OPT2830L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=120 Fees=20.05

OPT2876 OPHTHALMIC DISPENSING PRACTICUM II (3)
This is an externship in an approved retail ophthalmic dispensing establishment involving frame styling, ordering of appropriately designed lenses, adjustment, repair and dispensing of eyewear. The student will gain a working knowledge of administrative management procedures of the practice.

Prerequisite: OPT2420 OPT2830L OPT2875
Pre or Corequisite: OPT2420 OPT2421 OPT2461
Lec Hrs=0 Lab Hrs=0 Oth Hrs=120 Fees=20.05

OPT2879 REFRACTOMETRY PRACTICUM (2)
Practicum for OPT2375. Practical procedures used in determining the powers of corrective lenses in relation to a patient's refractive error. The student will learn to use the Phoroptor, retinoscope, and automated refraction instruments in determining the patient's subjective and objective refraction. Problems associated with the change in refractive powers will be demonstrated.

Prerequisite: OPT1110 OPT1110L OPT1210 OPT1330
Pre or Corequisite: OPT1150 OPT1150L OPT1330 OPT2375
Lec Hrs=0 Lab Hrs=0 Oth Hrs=96 Fees=20.05

OPT2910 DIRECTED RESEARCH (2)
Students will be introduced to the theory and terminology of medical research. Under the direct supervision of the clinical staff the student will select an area to do extended research. The areas may include but are not limited to, assisting, and other advanced ophthalmic medical topics.

Prerequisite: OPT2222 OPT2350 OPT2801L, OPT2940
Lec Hrs=16 Lab Hrs=0 Oth Hrs=40 Fees=0.00

OPT2940 OPHTHALMIC MEDICAL PRACTICUM (4)
Externship is an approved ophthalmological practice. The student will gain a working knowledge of the basic duties and responsibilities of a technician in a medical office. Emphasis will be placed on the development of skills in tonometry, visual fields, and B scan ultrasound, and photo-documentation.

Prerequisite: OPT2500 OPT2800L OPT2879
Pre or Corequisite: OPT2222 OPT2350 OPT2801L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=160 Fees=20.05

OPT2941 OPHTHALMIC MEDICAL PRACTICUM II (5)
Externship is an approved ophthalmological practice. The student will gain a working knowledge of advanced and more complete duties and responsibilities of a technician in an ophthalmic medical office. Emphasis will be placed on the development of skills in tonometry, visual fields, A and B scan ultrasound, and photo-documentation. Skills in assisting in triage and laboratory diagnosis of eye disease, and outpatient surgical assisting will be obtained.

Prerequisite: OPT2222 OPT2350 OPT2801L, OPT2940
Pre or Corequisite: OPT2223 OPT2351 OPT28802
Lec Hrs=0 Lab Hrs=0 Oth Hrs=200 Fees=20.05

ORH1000 HORTICULTURAL BIOLOGY (3)
An introduction to the disciplines involved in the broad field of horticultural plant and animal taxonomy, morphology, anatomy and physiology. Course provides fundamental processes as they relate to plant growth, pests, production maintenance, and planting will be stressed.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORH1000L HORTICULTURAL BIOLOGY LAB (1)
This two hour lab supports the lecture of ORH1000 and is required for all Landscape Technology students. Lab content is practical and oriented to existing situations encountered in the various horticultural professions and is primarily an overview of the plant and animal kingdoms with specific attention given to groups important to horticulture.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

ORH1523 NATIVE UPLAND PLANTS (2)
This course includes the identification of approximately 100 plants and plant groups native or naturalized in the higher ground habitats of South Florida. The application of these plants as in-situ, mitigation or landscape materials in the ecological and esthetic situations of this area will be an additional objective. Most instruction will be done in the field utilizing local passive- and active-use parks. Completion of any landscape plant identification class, ORH1524, ORH1510, ORH2511 ORH2512 or ORH1101, is strongly recommended.

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORH1524 NATIVE WETLAND PLANTS (2)
This course is a continuation of HOS1071, Native Upland Plants, and includes the identification of approximately 100 plants and plant groups native or naturalized in fresh and salt water wetlands of South Florida. The application of these plants as in-situ and mitigation species in ecological, landscape and esthetic situations will be done in the field.

Prerequisite: Instructor approval

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORT0001 NEW STUDENT ORIENTATION

This course will provide students with a solid foundation of knowledge and strategies needed for college success. Students will be instructed in areas of policies/procedures, educational resources and support services of the college. This course will cover the different disciplines of degrees administered, the various course formats and the process of searching/registering for classes. Further emphasis will be placed on areas including academic standing, test scores, college preparatory courses, catalog year, as well as other topics enabling students to successfully navigate their college experience.

Lec Hrs=3 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORT0002 HONORS ORIENTATION

Continuation of ORT0001 for honors students.

Lec Hrs=3 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORT0003 PREP ORIENTATION

Continuation of ORT0001 for students in three prep areas.

Lec Hrs=3 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORT0004 CYBER ORIENTATION

An on-line continuation of ORT0001.

Lec Hrs=3 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ORT0005 SOLAR ORIENTATION

Continuation of ORT0001 for speakers of other languages.

Lec Hrs=3 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST1003 BASIC KEYBOARDING, PART 1

This course offers an introduction to the keyboard with development of fundamental techniques. Laboratory hours are required in addition to the scheduled course hours. Minimum completion speed of 21 words per minute with a 5-error cutoff on 2-minute timed writings using touch technique are required.

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1004 BASIC KEYBOARDING, PART 2

This keyboarding credit includes skill development, simple correspondence and other business keyboarding. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 27 words per minute with 5-error cutoff on 3-minute timed writings are required.

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1005 BASIC KEYBOARDING, PART 3

This keyboarding credit includes skill development, business correspondence, business forms, and manuscripts. It begins production development. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 35 words per minute with 5-error cutoff on 5-minute timed writings are required.

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1101L KEYBOARDING & DOCUMENT PROCESSING I

This keyboarding course includes skill development which includes speed building, and accuracy improvement; with an emphasis on refining and creating business correspondence, forms, reports, and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 45 words per minute with 4-error cutoff on 5-minute timed writings are required.

Prerequisite: OST1100L

Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=25.00

OST1113 INTERMEDIATE KEYBOARDING, PART 4

This keyboarding credit includes skill development which includes speed building and accuracy improvement. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 39 words per minute with 4-error cutoff on 5-minute timed writings are required.

Prerequisite: OST1105

Pre or Corequisite: OST1114 OST1115

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1114 INTERMEDIATE KEYBOARDING, PART 5

This keyboarding credit includes skill development which includes speed building, accuracy improvement, refining business correspondence, reports and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 42 words per minute with 4-error cutoff on 5-minute timed writings are required.

Prerequisite: OST1113

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1115 INTERMEDIATE KEYBOARDING, PART 6

This keyboarding credit includes skill development which includes speed building, accuracy improvement, refining business correspondence, reports and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 42 words per minute with 4-error cutoff on 5-minute timed writings are required.

Prerequisite: OST1113

Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00
This keyboarding credit includes skill development with emphasis placed on business forms, correspondence, reports and tables. Laboratory hours are required in addition to the scheduled course hours. A minimum completion speed of 45 words per minute with 4-error cutoff on 5-minute timed writings are required.

Pre or Corequisite: OST1113 OST1114
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1330 BUSINESS ENGLISH (1)
This course provides a refresher course in punctuation and capitalization.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST1355 RECORDS MANAGEMENT (3)
Students will act as records managers in a simulated office utilizing computerized and paper management of records from planning, creation, filing, and retrieving to disposal according to ARMA principles. The student will learn and work with the basic legal requirements (such as Privacy Act and Freedom of Information Act) for the release and safekeeping of information and the laws and regulations regarding the management of such records.
Lec Hrs=24 Lab Hrs=24 Oth Hrs=0 Fees=20.00

OST1795 TELECOMMUNICATIONS (1)
A hands-on course utilizing the Internet. Course topics include telecommunications terminology, the use of the world wide web, bulletin boards, attachments, address books, bookmarks, search engines, history lists, browser programs and customizing the browser. E-mail etiquette, legal issues, and organizing and archiving e-mail are also investigated.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1811C DESKTOP PUBLISHING (3)
This course provides hands-on applications with a popular desktop publishing package. Through the application of desktop publishing techniques, students plan, design and create documents. Effective typeface and use of graphics and color in a publication's design and function are also covered.
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=28.00

OST1831 WINDOWS / GRAPHICAL ENVIRONMENT (1)
This course provides an introduction to the Windows Operating System. Students will learn the basic Windows commands including: My Computer, Explorer, Control Panel, Print Manager, WordPad, Paint, customizing the desktop, multi-tasking, and optimizing Windows.
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=8.00

OST1841 INSTRUCTIONAL DESIGN FOR MULTIMEDIA (3)
This course will give the student an in-depth study of the instructional design process based on learning theories for multimedia. Students will conduct a needs analysis, a task analysis, design multimedia elements using storyboards and flow charts, apply interactive strategies to multimedia elements, and evaluate the success of a multimedia project, with emphasis on making content clearer and more meaningful with multimedia.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST2053 SUCCESSFUL JOB SEARCH (1)
This course presents a hands-on, interactive study of interview and employability skills that focus on the keys to career success. The curriculum accentuates the need for goal setting and life achievement. Topics include occupational skills, positive self-image, attitude, setting priorities, time management, resume writing, and tracking down career leads. A unit on ethics and relationships is included.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST2335 COMMUNICATIONS IN THE WORKFORCE (3)
This course is designed to help students communicate more effectively. Students will practice analyzing, planning, managing, and executing both written and oral presentations. Special focus includes grammar and all types of business documents to ensure appropriate content and structure. Discussion includes intercultural work groups, nonverbal skills, and electronic mail as a part of communication on the job.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST2431 LEGAL OFFICE TECHNIQUES I (3)
This course provides an introduction to legal terminology, the typing of legal documents and pleadings, and office procedures for law firm employees.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

OST2432 LEGAL OFFICE TECHNIQUES II (3)
A further study of legal terminology with emphasis on preparation of legal papers.
Prerequisite: OST2431
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=5.00

OST2464C MEDICAL OFFICE COMPUTER APPLICATION (3)
This course prepares a medical office assistant to work in a health care practice utilizing computerized medical office management software. It provides training for input of new patient entry, posting procedures and payments, insurance billing, appointment scheduling, file maintenance with support files, and generating the daily, end-of-month, and end-of-period reports which are performed in a medical office.
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=20.00

OST2501 OFFICE MANAGEMENT (3)
This course is a study of the skills needed by the office professional in the workforce. It includes technology, the global economy, increased diversity, and the changing skills and a nature of work demanded in the workforce. The efficient handling of office matters, such as scheduling appointments, customer/client relations, managing office operations, processing mail and correspondence, communication, coordinating meetings/travel, and career planning and advancement are covered. Emphasis is placed on the managerial functions of the office.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

OST2601 TRANSCRIBING MACHINES (3)
This course emphasizes skill development for accurate transcription of recorded dictation to office standard proficiency levels. Special materials related to each student's major subject areas of legal and medical are provided.
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=15.00

OST2611C MEDICAL TRANSCRIPTION (3)
This course emphasizes fundamentals of transcribing various medical reports, discharge summaries, admissions records, history and physical reports, special delivery notes and other medical correspondence. Medical vocabulary and basic
language skills with grammar, punctuation, spelling and proofreading will be emphasized. -  
Prerequisite: HSC1531  
Lec Hrs=40 Lab Hrs=8 Oth Hrs=0 Fees=20.00

OST262L LEGAL OFFICE TRANSCRIPTION (3)  
The student will study legal terminology, operate a transcribing machine efficiently, and proofread accurately. The student will apply the rules of spelling, grammar and punctuation to produce legal documents directly from transcription tapes.  
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=20.00

OST2764 INFORMATION/WORD PROCESSING APPLICA (3)  
This course introduces the student to the operations of word processing software and emphasizes application skills such as processing business correspondence, reports, tables, macros, and mail merge. Laboratory hours are required in addition to the scheduled course hours. Keyboarding speed of 40 words per minute is recommended.  
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=28.00

OST2826C PRESENTATION GRAPHICS (3)  
This course provides hands-on applications in designing, laying out and scanning documents for newsletters, brochures, flyers, manuals, advertisements and catalogs. Through principles of effective design, students can makeover documents from their own work areas.  
Lec Hrs=16 Lab Hrs=64 Oth Hrs=0 Fees=28.00

OST2940L MULTIMEDIA PRACTICUM (4)  
This comprehensive course (recommended to be taken concurrently with Multimedia Project Management) will give the student experience creating work for someone else (content expert). The student will gain work experience in the field by being placed in an internship. The experience may come from within or outside the college. In addition, the student will create an interactive portfolio of work to show potential employers.  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST2945 MULTIMEDIA PROJECT MANAGEMENT (3)  
This course is recommended to take concurrently with Multimedia Practicum will teach the student the theory necessary to manage projects from visualization to completion. The student will learn how to visualize, schedule, budget, procure and evaluate resources for multimedia development.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OST2949 CO OP WK EXP (3)  
A course designed to provide training in a student's field of study through work experience. Students are graded on the basis of learning objectives and employer evaluations. Course may be repeated three times. Prerequisite: Co-op Department approval. Students will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Cooperative Education Office to obtain the registration approval.  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

OTA0001 OFFICE SUPPORT TECHNOLOGY I (2)  
The purpose of this course is to prepare students for employment as office support technicians in the field of word processing and/or related occupations. The students will be able to edit and produce written communications using word processing software and act as information processing operators. Machine transcription and payroll processing is also introduced with emphasis throughout on leadership and decision-making skills.  
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OTA0002 OFFICE SUPPORT TECHNOLOGY II (2)  
The purpose of this course is to prepare students for employment in the field of word processing and/or related occupations using more advanced skills as office support technicians. The students will be able to proficiently edit and create written communications using word processing software and act as information processing operators on a windows-based microcomputer. Machine transcription and payroll processing skills will be enhanced with an emphasis throughout on quality performance in the learning environment in the workshop.  
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=36.00

OTA0312 OFFICE COMMUNICATIONS I (2)  
The purpose of this course is to provide a basic overview of written communication used in today's business environment to enhance personal and workplace proficiency. Emphasis is placed on developing fundamental language and writing skills and using word processing computer application software efficiently in today's information-based society.  
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=0.00

OTA0313 OFFICE COMMUNICATIONS II (2)  
The purpose of this course is to provide an advanced overview of written communication skills with emphasis being placed on developing additional language and writing skills using computer applications and formatting techniques. These skills may be used in acquiring employment and increasing professional opportunities in an information-based society.  
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=0.00

OTA0323 OFFICE COMMUNICATION III (5)  
The purpose of this course is to provide a more advanced overview of written communication skills with emphasis being placed on developing additional language and writing skills using advanced computer applications and formatting techniques. These skills may be used in acquiring employment and increasing professional opportunities in an information-based society.  
Lec Hrs=50 Lab Hrs=100 Oth Hrs=0 Fees=0.00

OTA0475 LEGAL ASPECTS OF BUSINESS (2)  
The course is designed to provide an introduction to the legal aspects of business. Topics include business law concepts, forms of business ownership, insurance awareness, governmental regulations, management functions, human resources management issues, and career development. The use of computers is an integral part of this program.  
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=0.00
OTA0476 LEGAL OFFICE I (2)
The purpose of this course is to prepare students to perform specialized legal office procedures such as preparing legal documents, maintain and utilize a legal reference library, proofread legal documents and perform specialized records management functions specific to the legal field.
Prerequisite: OTA0477
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0477 LEGAL OFFICE II (2)
This course expands the competencies learned in Legal Office I. Students are required to perform higher level thinking and decision making and to use technology as a resource to efficiently perform systematic procedural tasks and to produce quality work in an efficient manner. Students will begin transccribing legal documents from machine dictation.
Prerequisite: OTA0476
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0478 LEGAL OFFICE III (2)
This course expands the competencies learned in Legal Office II and is designed to develop skill in transccribing legal documents from machine transcription. Students will use technology to produce high quality employment portfolios, research job opportunities, and compile and disseminate job-seeking documents.
Prerequisite: OTA0477
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0612 MEDICAL SECRETARY I (2)
The purpose of this course is to prepare students to perform secretarial duties that require knowledge of basic medical terminology and medical office procedures. Instruction includes an introduction to basic medical terminology, filing, and appointment scheduling as it relates to the medical field, and the development of basic skills in the keying of business letters and other office correspondence.
Prerequisite: OTA0476
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0613 MEDICAL SECRETARY II (2)
The purpose of this course is to prepare students to perform secretarial duties in a medical office environment utilizing knowledge of basic medical terminology. Instruction includes the introduction of transcription techniques so the student will be comfortable transcribing paragraphs that include medical terminology. The student will become familiar with completing insurance and claim forms and the scheduling of appointments in a medical setting.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0614 MEDICAL SECRETARY III (5)
The purpose of this course is to prepare students to perform secretarial, administrative, and managerial duties in a medical office environment with an advanced level of competency. The content includes a thorough knowledge of medical terminology, accurate transcription of various medical documents from machine transcription, production of quality work using advanced features of business software applications, use of technology to develop office management skills, and production of professional job application documents.
Lec Hrs=50 Lab Hrs=100 Oth Hrs=0 Fees=25.00

OTA0940 OFFICE SUPERVISION I (2)
The purpose of this course is to prepare students to incorporate appropriate leadership supervision techniques and standards of personal ethics to accomplish job objectives and enhance workshop performance.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0948 OFFICE SUPERVISION II (2)
The purpose of this course is to prepare students to attain a position of management that will incorporate leadership and supervision skills that promote quality performance in the workplace without sacrificing high standards of personal ethics.
Lec Hrs=25 Lab Hrs=50 Oth Hrs=0 Fees=25.00

OTA0949 ON THE JOB TRAINING (5)
The purpose of this course is to provide students with an overview of public administration with an emphasis on the political context.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=25.00

PAD2002 INTRODUCTION TO PUBLIC ADMINISTRATI (3)
This introductory course examines the governmental context of public administration including political values, bureaucratic politics, leadership and intergovernmental relations; organizational theory including decision making and organizational structure; and the administrative process including public personnel administration, budgeting, policy making and governmental regulation. The objective of this course is to provide the student with an overview of public administration with an emphasis on the political context.
Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEL1041C RECREATION ACTIVITIES (2)
An overview of outdoor and indoor games and activities for various age groups in a recreational setting.
Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEL1111 BEGINNING BOWLING (1)
The basics of bowling and provides instruction in the use of irons and woods, plus putting and approach shots. Rules and courtesies of the game are covered. Coeducational.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEL1121 BEGINNING GOLF (1)
Introduces the Golf swing and provides instruction in the use of clubs, rules and courtesies. Coeducational.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL1131 BEGINNING POCKET BILLIARDS (1)
Includes the science and techniques of standard Pocket Billiard games. Coeducational. Fee assessed at site of each class.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEL1141 BEGINNING ARCHERY (1)
To provide the student with opportunities to learn Archery equipment selection and care, basic safety considerations, techniques and fundamentals of shooting. Coeducational.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=10.00

PEL1211 SOFTBALL (1)
Coeducational. Students furnish gloves.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL1321 VOLLEYBALL (1)
Students learn the basic techniques of power Volleyball such as Bumping, Setting, Spiking, Blocking and Overhand serve
and apply them in exciting, fast action power Volleyball games. Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PELI341 BEGINNING TENNIS  (1)
Concentration on learning the basic skills of forehand, backhand, and serve. Scoring and rules of the Single and Doubles are covered with an opportunity to apply them in game situations. (Student must furnish racquet and balls.) Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL1420 HANDBALL & PADDLEBALL  (3)
Coeducational (student must supply own gloves and paddles). Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

PEL1441 3 WALL RACQUETBALL  (1)
Instruction in Racquetball. Coeducational. Students must provide own Racquets and Balls, and Safety Glasses.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL1621 BASKETBALL  (1)
Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL2112 INTERMEDIATE BOWLING  (1)
Emphasis is placed upon self improvement following the beginning Bowling course. Advancing by learning "Spot" Bowling and recognizing through analysis, to detect your own Bowling inconsistencies. (Shoes and Ball are provided.)

Prerequisite: PEL1111 or instructor's approval. Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEL2122 INTERMEDIATE GOLF  (1)
Provides individualized help in correcting problems in golf swing and introduces advanced shots and techniques. The majority of the course provides extensive opportunities for guided play on a golf course. Coeducational. Prerequisite: PEL1121 or instructor's approval. Fee assessed at site of each class.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

PEL2132 INTERMEDIATE BILLIARDS  (1)
Course will include advanced techniques in Snooker, One Pocket Bank Pool Rotation, Cribbage and Three-cushion Billiards. Prerequisite: PEL1131 or instructor's approval. Fee assessed at site of each class.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

PEL2322 INT VOLLEYBALL II  (1)
This course continues the techniques of power volleyball. Students will project the skills of bumping, setting, spiking, blocking, and gain insight into the strategy of good offense and defense. Advanced skills and strategies are used.

Prerequisite: instructor's approval or PEL1321.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL2342 INTERMEDIATE TENNIS  (1)
Reviews Forehand, Backhand, and Serve and concentrates on volley, Approach Shots, Lob, and Overhead. Strategy and tactics of Doubles and Singles play are emphasized.

Prerequisite: PEL1341 or instructor's approval. (Student must furnish own Racquet and Balls). Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEL2442 4 WALL RACQUETBALL  (1)
Involves the teaching of advanced skills and strategies in Singles, Cutthroat, and Doubles play of 4-wall Racquetball.

Prerequisite: PEL1441 or instructor's approval. Students supply own Racquets, Balls and protective Eyeglasses.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=31.00

PEM1011 THERAPEUTIC PHYSICAL EDUCATION  (1)
Students will participate in a specialized activity program designed for the individual with consultation from the student and from a Physician or Physical Therapist if necessary. Department Head approval required.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM1116 SLIMNASTICS  (2)
Students will discuss and apply information on Exercising, Sensible Dieting, Weight Control, Nutrition, Energy Input and Output as it relates to weight control, and discuss and practice good posture habits, and relaxation techniques.

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM1121 BEGINNING YOGA EXERCISES  (1)
Students will learn proper exercise, relaxation and balance of both the body and mind. A holistic approach to health and stress management is emphasized. Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM1131 WEIGHT TRAINING  (2)
A course primarily designed and organized for students of all ages to optimize their wellness in each of the following six interrelated dimensions: physical wellness; intellectual wellness; emotional wellness; spiritual wellness; interpersonal/social wellness; environmental/planetary wellness. Students will learn how to assess and apply this information to their lives in order to contribute to the welfare of the community and environment with a specific emphasis on resistance training methods and techniques.

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM1141 AEROBIC WELLNESS  (2)
A course primarily designed and organized for students of all ages to optimize their wellness in each of the following six interrelated dimensions: Physical Wellness, Intellectual Wellness, Emotional Wellness, Spiritual Wellness, Interpersonal/Social Wellness, and Environmental Wellness. Students will incorporate and apply concepts of aerobic exercise and healthy living in ways that will contribute to the welfare of the community and the environment.

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM1181 WALK/JOG/RUN  (2)
Students will develop and carry out a personalized Walking, Jogging, or Running program by applying information on equipment selection, physiology, mechanics, psychology, training principles, conditioning, program guidelines, environmental concerns, and injury prevention.

Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEM2462 INTERMEDIATE FENCING (FOIL, SABRE)  (1)
Advanced Fencing techniques of Foil, Sabre and Epee. Coeducational. Instructor's approval or

Prerequisite: PEM1461

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00

PEN1121 BEGINNING SWIMMING  (1)
Coeducational.

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=2.00
PET1303 FOUNDATIONS OF EXERCISE SCIENCE (3)
This course is designed to provide a foundational knowledge base which is common to all the different areas of fitness leadership. The didactic instruction lays the groundwork required by the fitness professionals in order to be analytical in their approach to safe and effective exercise programming for the public. Course content is heavy in the areas of anatomy and physiology as well as kinesiology, the science of human movement.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PET2084 PERSONAL FITNESS CONCEPTS FOR TEACH (3)
This course is designed for present and prospective middle and high school health and physical education teachers. It covers the basic principles of exercise, various fitness programs, fitness assessment, nutrition, weight management, cardiovascular health, managing stress, and HIV/AIDS. Lectures will include hands-on activities and demonstrations.
This course will not satisfy the General Education Requirements for the A.A. or A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PET2622 CARE/PREVENTION/ATHLETIC INJURIES (2)
Develops competence, knowledge and skill in the prevention and care of athletic injuries.
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PGY1800C DIGITAL PHOTOGRAPHY (3)
This is a Graphic Design course formulated to develop skills with a digital camera. Students will learn through the use of a digital camera how to take photographs for use in the designs they create for print, web and multimedia. Students will learn to properly expose, compose, and use effective lighting in the making of photographs. The use of natural and artificial lighting will be used in portraiture, product and outdoor photography.
Prerequisite: PGY1801C
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

PGY1801C DIGITAL IMAGING (3)
This is a graphic design course formulated to develop skills in digital imaging. Students will learn through the use of the computer how to create, edit and manipulate digital images from scanned photographs and artwork. Students will utilize retouching technique to modify, enhance and reshape images, apply special effects, adjust color balance, manage files, and prepare their work for print output and web/electronic presentation. The class is portfolio driven, training students to follow a business process for analyzing client needs, conducting research and developing a concept for production within a budget.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=65.00

PGY2401C PHOTOGRAPHY I (3)
Basic procedures of black and white still camera work, developing, and printing. Emphasis on intensifying visual perception and analysis of photographs as Art and record. Student will supply 35mm camera, film, and paper.
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=30.00

PGY2421C PHOTOGRAPHY II (3)
The application of the 35mm camera to specially directed individual projects. Emphasis on the use of photography in documenting the social landscape. Student will supply 35mm camera, film, and paper. Instructor's approval or Prerequisite: PGY2401C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=30.00
PGY2610 PHOTO JOURNALISM (4)
A production class in periodical and press photography. Students will produce picture essays which will serve as a basis for class discussion. Emphasis is on the form and content of reportorial B&W photographs, their production, and their relationship to American society. The student will supply a 35mm camera, film and paper. As part of the course, students will have an opportunity to shoot for campus publications. Instructor's approval. Special fee charged.
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=10.00

PGY2806C FINE ARTS DIGITAL PHOTOGRAPHY (4)
This course is a Visual Arts class formulated to introduce and develop some of the necessary skills that will enable the students to understand the basic principles of digital cameras, film scanners and digital printing and how to use them in the context of the visual language. It is a course designed for Visual Arts students which will provide them with the necessary tools to understand the conceptual, visual, historical and cognitive arguments needed to create a cohesive and personal body of work. The students will learn Fine Arts Digital Photography through the use of digital cameras, film scanners and photo editing software. It will be hands-on learning experience. An important part of the class will be lectures, slide presentations, and discussion of historical and contemporary issues dealing with conceptual and visual arguments. Critiques will be the forum where students present their ideas and discuss/verbalize concepts dealing with Prerequisite: PGY2401C.
Lec Hrs=32 Lab Hrs=64 Oth Hrs=0 Fees=45.00

PGY2850C DIGITAL VIDEO/AUDIO EDITING (3)
Concepts and techniques of video/audio production for recording. Using full-motion video camera and video editing and sound editing software, students will produce video and sound modules for inclusion in multimedia projects. Video formats, signals, compression standards, capture and equipment will be emphasized. Sound formats including compression standards, sampling, resource management, software and equipment selection will be studied. Copyright issues will be discussed.
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=50.00

PGY2905 INDEPENDENT STUDY: PHOTOGRAPHY (3)
A directed, independent study course available to both majors and non-majors who wish to investigate a particular problem related to the photographic process. Exceptions to prerequisite will be considered by the Art Department Head. Instructor's approval or
Prerequisite: PGY2401C PGY2410C
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=30.00

PHI1100 INTRODUCTORY LOGIC (3)
Study of the principles and evaluation of critical thinking including identification and analysis of fallacious, as well as valid reasoning. Traditional and symbolic logic will be considered and foundations will be laid for further study in each area. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHI2010 INTRODUCTION TO PHILOSOPHY (3)
An introduction to the nature of philosophy, philosophical thinking, major intellectual movements in the history of philosophy, and specific problems in philosophy. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHI2600 INTRODUCTION TO ETHICS (3)
A study of the basic concepts and principles of morals, values and judgments that govern human actions, as well as various ethical theories. Meets Area 2F general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHI2930 SPECIAL TOPICS: PHILOSOPHY (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the PHI2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT1001 PHYSICAL PRINCIPLES FOR THE PT ASSI (1)
Course introduces the student to the basic physical principles that apply to commonly utilized therapeutic procedures in the field of physical therapy. Topics include but are not limited to body mechanics, ergonomics, the use of heat, cold, sound and electricity to facilitate healing.
Prereq or Corequisite: PHT1013 PHT1200
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT1020 THERAPEUTIC COMMUNICATION FOR THE P (2)
An overview of effective communication skills and concepts regarding successful therapeutic interactions will be presented. Students will participate in several interactive sessions to become familiar with team building, verbal and non-verbal communication requirements, effective listening concepts, and conflict management to determine how to manage clinical situations as they arise. Cultural diversity is discussed. Students are responsible for developing an in-service presentation as a means of enhancing effectiveness of communication.
Corequisite: PHT1801L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT1103 ANATOMY FOR PHYSICAL THERAPIST ASSI (3)
Course introduces basic human anatomy with an emphasis on the structure and function of the skeletal and muscular systems. Actions, origins, insertions and innervations of muscles are discussed. Surface anatomy is presented with an introduction to basic palpation.
Prerequisite: BSC1086 BSC1086L
Corequisite: PHT1110L PHT1200
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT1103L ANATOMY FOR PHYSICAL THERAPIST ASSI (1)
Laboratory sessions for Anatomy for PTA (PHT1103) are designed to provide the students with an opportunity to identify, with accuracy, a variety of bones, bony landmarks,
muscles, ligaments and other soft tissue structures using graphics and various anatomical specimens/models. Basic palpation skills are developed.

Pre or Corequisite: PHT1103 PHT1200L
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=5,00

PHT200 INTRODUCTION TO PHYSICAL THERAPY

Course introduces the student to the historical background, philosophy and goals of physical therapy as a profession. It incorporates discussion on legal and ethical issues, educational requirements, supervisory relationships and current developments related to physical therapy. Health care delivery systems, the medical record and issues of reimbursement are discussed. Presents the basic theory of preparing the patient and the treatment area, positioning and transferring techniques, gait training, and wheelchair prescription. Professional behaviors are introduced.

Pre or Corequisite: PHT1103 PHT1200L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0,00

PHT200L INTRODUCTION TO PHYSICAL THERAPY LAB

Laboratory sessions for Introduction to Physical Therapy (PHT1200) are designed to allow the students an opportunity to familiarize themselves with the basic fundamentals of patient care. Emphasis is on body mechanic analysis, positioning procedures, transfers, gait training, and basic patient preparation skills. Case studies of various medical conditions with emphasis in these areas are completed. Data collection relative to the course content as well as patient and caregiver education are emphasized. Skill checks as well as competency evaluations are completed. Professional behaviors, at the novice level, are assessed.

Pre or Corequisite: PHT1103 PHT1200L
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=50,00

PHT211 DISABILITIES AND THERAPEUTIC PROCED

Course introduces the student to the theory and practical application of physical therapy modalities. The physiological effects of heat, cold, radiant therapy, electrotherapy, traction, intermittent compression and massage are presented. Principles of effective documentation and discharge planning are discussed. Problem-solving skills are detailed.

Prerequisite: PHT1103 PHT1200
Pre or Corequisite: PHT1211L PHT2224
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0,00

PHT211L DISABILITIES AND THERAPEUTIC PROCED

Laboratory sessions for Disabilities & Therapeutic procedures (PHT1211) are designed to develop student skills in the actual performance of the patient care interventions presented. Skills in massage are developed. Practical application of each intervention is emphasized with patient simulations and case studies enhancing the ability to understand a plan of care for a patient. Professional behaviors, at the intermediate level, are assessed. Data collection relative to the course content as well as patient and caregiver education are emphasized. Skill checks as well as competency evaluations are completed. Students are expected to demonstrate competency in carrying out an appropriate therapeutic modality plan of care, including effective documentation.

Prerequisite: PHT1103L PHT1200L

Pre or Corequisite: PHT1211 PHT2224L
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=50,00

PHT1300 SURVEY OF PATHOLOGICAL DEFICITS

Course introduces the student to general pathological conditions with emphasis on those commonly seen in the field of physical therapy. Basic system anatomy is reviewed with an emphasis on the pathophysiology of disease. Student presentations of various musculoskeletal conditions are completed. Descriptions of how diseases are classified, diagnosed and treated, as well as the natural course/prognosis of these diseases are presented. Implications of disease processes as well as contraindications, precautions and patient/caregiver education related to physical therapy are discussed through case study analysis. When relevant, specific physical therapy plans, such as chest PT, are discussed. The effects of aging upon disease and in general are considered.

Pre or Corequisite: PHT1200
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0,00

PHT1350 BASIC PHARMACOLOGY FOR PT ASSISTANT

Course introduces concepts of basic pharmacology and presents pharmacological agents dispensed for conditions commonly seen in physical therapy. Drug responses and interactions as they relate to patient response are discussed.

Prerequisite: PHT1300
Pre or Corequisite: PHT1211
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0,00

PHT1801L CLINICAL PRACTICE I

Course involves student assignment to a local clinical facility. Includes scheduled class meetings to discuss clinical performance objectives, the self-appraisal process, and other requirements for this novice-level practicum. Discussions also include professionalism, attitudes, patient rapport, sexual harassment, etc. A journal report of clinical experiences and an article review are required. Weekly online discussion forums facilitate critical thinking, peer review, and managing clinical situations at the novice-level. Students attend a personal conference with the academic coordinator of clinical education to discuss progress and to identify areas of strength/weakness with appropriate target dates methods of amelioration, if needed. Students receive a satisfactory/fail grade.

Corequisite: PHT1020
Lec Hrs=0 Lab Hrs=120 Oth Hrs=120 Fees=70,05

PHT1220 APPLIED KINESIOLOGY

This course is designed as part of a continuum in the application of anatomy to facilitate student analysis of
functional movements with specific focus on the relationship between joint structure and function. Principles of biomechanics as it relates to human movement will be reviewed. Normal and pathological gait patterns are presented as well as normal and pathological movement patterns of the head, spine, pelvis, UE, and LE. Special tests which help identify specific deficits will be discussed. Case studies of various functional impairments with an emphasis on functional task analysis as well as therapeutic interventional approaches which help restore function are presented. Orthotic interventions for the spine and extremities are discussed with an emphasis on correcting pathological biomechanics.

Prerequisite: PHT1020
Corequisite: PHT2120L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT2120L APPLIED KINESIOLOGY LAB (1)
Laboratory sessions for Applied Kinesiology (PHT2120) are designed to provide opportunities for the students to practice the skills of analyzing normal and pathological gait, along with normal and abnormal movements of the head, spine, pelvis, UE and LE. Performance of special tests will be practiced. Palpation of surface anatomy and review of anatomical/bony landmarks occurs. Through completion of lab activities and case studies, the student correlates patient problems to various pathologies with their deficits in functional activities and gait. Therapeutic interventional approaches which include progression will be developed to address functional deficits. Orthotic interventions for the spine and extremities are applied with an emphasis on correcting pathological biomechanics.

Prerequisite: PHT2120L
Pre or Corequisite: PHT2120
Lec Hrs=6 Lab Hrs=32 Oth Hrs=0 Fees=50.00

PHT2162 SURVEY OF NEUROLOGICAL DEFICITS (4)
Course introduces the etiology, pathophysiology and symptoms of common neurological diseases/conditions. Basic neuroanatomy is reviewed. Neurodiagnostic procedures are presented. Specific case study assignments of various neurological conditions are completed and discussed.

Prerequisite: PHT1020 PHT2224
Corequisite: PHT2810L
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT2203 MANUAL TECHNIQUES I (3)
This course will provide the student with an in-depth view of the history, theory, terminology, physiology, pathology, and basic techniques used during stages of rehabilitation. Course includes aspects of ethics, law, business and marketing in the field of massage. Prerequisite: A.S. degree in Physical Therapist Assisting.

Pre or Corequisite: PHT2203L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT2203L CLINICAL PRACTICUM IN MANUAL TECHNI (2)
This course will provide the student laboratory experience to practice Swedish and structurally based therapeutic massage in a supervised setting. Prerequisite: A.S. degree in Physical Therapist Assisting.

Pre or Corequisite: PHT2203
Lec Hrs=60 Lab Hrs=0 Oth Hrs=0 Fees=25.00

PHT2204 MANUAL TECHNIQUES II (3)
This course explores advanced techniques further developing the student's use and integration of structural-based and energy-based systems. Topics will include trigger point therapy, myofascial release, and other advanced therapy applications.

Prerequisite: PHT2203 PHT2203L
Pre or Corequisite: PHT2204L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT2204L CLINICAL PRACTICUM IN MANUAL TECHNI (2)
This course provides an advanced laboratory experience incorporating hands-on techniques and sequences to balance the various energy patterns of the physical body in a supervised setting.

Prerequisite: PHT2203 PHT2203L
Pre or Corequisite: PHT2204
Lec Hrs=60 Lab Hrs=0 Oth Hrs=0 Fees=25.00

PHT2224 DISABILITIES & THERAPEUTIC PROCEDUR (3)
Course introduces concepts of therapeutic exercise with regards to its principles, and objectives. The theory of and application of specific exercise regimes are presented. Principles of ROM and stretching techniques are presented. A basic introduction to goniometry and manual muscle testing procedures is presented as it pertains to the development of therapeutic exercise interventions.

Prerequisite: PHT1103
Pre or Corequisite: PHT1211 PHT2224L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHT2224L DISABILITIES AND THERAPEUTIC PROCED (2)
Laboratory sessions for Disabilities and Therapeutic Procedures II (PHT2224) are designed to provide the student with observation and actual application of therapeutic exercise in the laboratory setting. Case studies of various medical conditions with emphasis on therapeutic exercise interventions are completed. ROM and stretching techniques are practiced. Goniometry and manual muscle testing procedures are practiced as they relate to the development of therapeutic exercise. Data collection relative to the course content as well as patient and caregiver education are emphasized. Professional behaviors, at the intermediate level, are assessed. Skill checks as well as competency evaluations are completed. Students are expected to demonstrate competency in developing and carrying out an appropriate therapeutic exercise program including effective documentation.

Prerequisite: PHT1103L PHT1200L
Pre or Corequisite: PHT1103L PHT2224L
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=50.00

PHT2704 REHABILITATION PROCEDURES (3)
Advanced course designed to develop skill in and understanding of the underlying principles of advanced physical therapy plans of care including motor learning principles. Techniques presented include advanced therapeutic exercise programs (stroke, spinal cord injured, etc.) proprioceptive neuromuscular facilitation (PNF), Bobath and Brunstrom. Amputations and principles of prosthetics are detailed with fitting and check-out procedures reviewed.

Prerequisite: PHT2162
Pre or Corequisite: PHT2704L PHT2931
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
PHT2704L REHABILITATIVE PROCEDURES LAB (1)
Laboratory sessions for Rehabilitative Procedures (PHT2704) are designed for the students to practice the utilization of developmental postures in patient interventions as well as PNF, facilitation/inhibition techniques and other forms of advanced therapeutic exercise approaches. Stump wrapping and therapeutic management of prosthetic patients are practiced. Case studies of various medical conditions with emphasis on advanced therapeutic exercise approaches as well as application of prosthetic principles are completed. Data collection relative to the course content as well as patient and caregiver education are emphasized. Skill checks are completed. Students are expected to demonstrate competency in developing and carrying out appropriate interventions for a patient with neurological deficits. Professional behaviors, at the entry level, are assessed.
Prerequisite: PHT2162
Pre or Corequisite: PHT2704 PHT2931
Lec Hrs=0 Lab Hrs=32 Oth Hrs=360 Fees=70.05

PHT2810L CLINICAL PRACTICE II (6)
Course involves student assignment to local clinical facility. Includes scheduled class meetings to review clinical performance objectives, the self-appraisal process, and overall requirements for this intermediate level practicum. Class discussions are held to share and discuss experiences, patient care problems, learning styles, cooperative group participation, acceptance and implementation of constructive criticism, etc. A clinical journal and an in-service are required. Weekly online discussion forums facilitate critical thinking, peer review, and managing clinical situations at the intermediate level. Students attend a personal conference with the academic coordinator of clinical education to discuss progress and to identify areas of strength/weakness with appropriate target dates and methods of amelioration, if needed. Students receive a satisfactory/fail grade.
Prerequisite: PHT1801L
Pre or Corequisite: PHT2162
Lec Hrs=0 Lab Hrs=0 Oth Hrs=360 Fees=70.05

PHT2820L CLINICAL PRACTICE III (5)
Course involves full time student assignment to a local clinical facility. Includes scheduled class meetings to discuss clinical performance objectives, the self-appraisal process, and overall requirements for this entry-level practicum. A clinical journal, a case study report and a research project are required. Class discussions are held to share and discuss experiences, patient care problems, readiness for the workplace, leadership responsibilities, professional growth, etc. Weekly online discussion forums facilitate critical thinking, peer review, and managing clinical situations at entry level. Students attend a personal conference with the academic coordinator of clinical education to discuss progress and to identify areas of strength/weakness with appropriate target dates and methods of amelioration where necessary. Students receive a satisfactory/fail grade.
Prerequisite: PHT2810L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=300 Fees=70.05

PHT2931 TRANSITION SEMINAR (2)
A discussion and presentation seminar course on legal and ethical issues, interpersonal skill refinement, employment techniques, quality assurance, and career development. Discharge planning concepts are reviewed. Empathy for patients and enhanced understanding of the challenges of a disability are explored through a community advocacy project. A capstone project is completed to assess entry level preparation. The course also provides a comprehensive curriculum review and presents details on applying for licensure as students prepare for the transition to the work place.
Prerequisite: PHT2120 PHT2162
Pre or Corequisite: PHT2704
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHY1001L APPLIED PHYSICS LAB (1)
Laboratory which meets for two hours per week for the purpose of demonstrating and verifying the theories of mechanics, electricity, and magnetism. The concept of heat is introduced and experiments are performed to illustrate this concept. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: PHY1001
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

PHY2048L GENERAL PHYSICS WITH CALCULUS I LAB (1)
Laboratories designed to accompany PHY2048. One two hour period each week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Special fee charged. Placement by Testing Department or Pre or
Corequisite: PHY2048
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=10.00

PHY2049L GENERAL PHYSICS WITH CALCULUS II LAB (4)
The second part of a two term physics course employing the use of calculus. Topics covered during this term are electricity, magnetism, and optics. Four hours weekly.
Four hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: PHY2048
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=0.00
PHY2049L GENERAL PHYSICS WITH CALCULUS II LA
A continuation of laboratory experiences chosen to coincide with the topics of electricity, magnetism, optics. One two hour period per week. Special fee charged. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or corequisite: PHY2048L
Pre or Corequisite: PHY2049
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=15.00

PHY2053 GENERAL PHYSICS I
A general physics course employing algebra and trigonometry to explain the quantitative aspects of mechanics, properties of matter, heat and sound. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Special fee is charged. Placement by Testing Department or Pre or Corequisite: PHY2053L
Pre or Corequisite: PHY2053
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHY2053L GENERAL PHYSICS I LAB
Laboratories designed to accompany the topics under study in PHY2053. One two hour period per week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Special fee is charged. Placement by Testing Department or Pre or Corequisite: PHY2053
Pre or Corequisite: PHY2053L
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=10.00

PHY2054 GENERAL PHYSICS II
The second part of a two term physics course employing algebra and trigonometry. Topics covered during this term are electricity and magnetism, optics, and special relativity and quantum theory. Three hours weekly. Meets Area 4B general education requirements for education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: PHY2054
Pre or Corequisite: PHY2054L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHY2054L GENERAL PHYSICS II LAB
Laboratory experiences designed to accompany the topics under study in PHY2054. One two hour period per week. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Special fee charged. Placement by Testing Department or Pre or Corequisite: PHY2054
Pre or Corequisite: PHY2054L
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=15.00

PHY2420 ELEMENTARY WAVE THEORY
A survey of the basic topics in the properties of physical and electromagnetic waves, including the study of intensity and motion waves. Placement by Testing Department or Pre or Corequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PHY2464 ACOUSTICS
A survey of basic topics in the physical properties of sound and music, including an in-depth study of wave motion, pitch, timbre intensity, and the nature of stringed, wind, percussion, and vocal instruments. Three hours weekly. Prerequisite: MAT1033 with a grade of "C" or higher. Prerequisite or corequisite: MUT1111 or consent of instructor. Placement by Testing Department or Pre or Corequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA003 INTRODUCTION TO LEGAL ASSISTING
This course provides an overview of the training and duties of the legal assistant/paralegal. Also included is a discussion of legal terminology, research techniques, and pertinent litigation documents.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1104 LAW LIBRARY/RESEARCH
This course provides information on how to research and write legal documents for both trial and appellate work. An in-depth examination of the law library and legal research techniques are emphasized, including the teaching of how to research utilizing computer research.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=100.00

PLA1201 CIVIL LITIGATION
This course covers the basic concepts of Civil Litigation. Discussions involve the liability of the individual in relation to the specific acts committed.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1303 CRIMINAL LITIGATION
This course provides students with a survey of the criminal justice system. Substantive and procedural aspects of criminal law are studied. Course content includes the nature of different crimes, the potential charges, and penalties involved; also covered are pre-trial procedures, discovery, plea-bargaining process, and the problems involved in the conduct of trial proceedings. Instructor's approval or Pre or Corequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1435 CORPORATIONS
This course provides an in-depth study of Corporate Law. Topics covered include types of corporations, articles of incorporation, bylaws, shareholders’ agreements, voting rights, management structure, directors’ powers, and voluntary/involuntary dissolutions. Non-profit corporations and professional associations are also discussed. Instructor's approval or Pre or Corequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1600 PROBATE PRACTICE
This course prepares legal assistants to work effectively under the supervision of a lawyer in the probate of an estate. The Florida probate code and related taxes are studied. Preparation of pleadings is included. Instructor's approval or Pre or Corequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1610 PROCEDURES FOR REAL ESTATE TITLE CL
This course surveys the basic concepts of Real Property Law. The students study how to handle a real estate transaction from the drafting of a contract to its closing. The nature of property, the consequences of its possession, and the
mechanics of the title examination are also studied. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1800 DOMESTIC RELATIONS  (3)
This course surveys domestic relations, and includes topics such as marriage, dissolution of marriage, separation agreements, custody, legitimacy, adoption, name changes, support, court procedures, and property disposition.
Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA1841 IMMIGRATION LAW  (3)
This course provides an in depth study of Immigration Law. Topics covered include a historical overview of immigration law, types of immigration law practices, agencies involved with immigration laws, the drafting of fall documents and forms associated with immigration law, the Immigration & Nationality Act & the administrative system covering the practice of immigration law.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA2114 LEGAL WRITING AND DRAFTING  (3)
This course concentrates on developing skills in the grammar, language, and format of legal documents. Emphasis is placed on drafting interoffice memoranda. Other documents drafted include business letters, briefs, and pleadings.
Prerequisite: Instructor approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA2466 DEBTOR/CREDITOR RELATIONS  (3)
This course provides an in-depth study of Debtor/Creditor Law. Topics covered include collection of debts through court processes, post-judgment collection practices, bankruptcy law, landlord/tenant debt law, collection of debts based upon negotiable instruments, federal consumer collection acts, and foreclosure actions. Instructor's approval or
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLA2612C ADVANCED TITLE SEARCH PROCEDURES  (3)
The student will learn how to perform a closing from the inception to closing. They will become familiar with real estate documentation, an understanding of title insurance, homestead concepts, basic title examination, and transactions and procedures to prepare and close various real property transactions. The student will apply computer applications throughout the course using The Fund's ATID System to search title information to prepare closings documents and policies.
Prerequisite: PLA1610
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=25.00

PLA2940 LEGAL ASSISTING PRACTICUM  (3)
This course is designed to apply the knowledge and skills developed in the required courses through practical work experience. The student will perform legal work for 144 hours under the supervision of an attorney. Program Coordinator's approval.
Prerequisite: ENC1101 PLA1003 PLA1104
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PLS2600 WEED IDENTIFICATION AND CONTROL  (3)
Identification and methods of control of terrestrial and aquatic weeds of Southern Florida commonly found in landscapes, field and container nurseries, and turfgrasses and aquatic areas. Calibration, use and preventative maintenance of pest control equipment will also be discussed. Two four hour lectures for 6 weeks.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

POR1120 BEGINNING PORTUGUESE I  (4)
Fundamentals of speaking, understanding, reading, and writing. Classroom practice and exercises supplemented by language laboratory sessions designed to develop confidence and proficiency. Student expected to continue with POR1121. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

POR1121 BEGINNING PORTUGUESE II  (4)
Continuation of POR1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: POR1120
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

POS2041 NATIONAL GOVERNMENT  (3)
Study of theory, principles, and institutions involved in the American National Government. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

POS2112 STATE & LOCAL GOV'T  (3)
Study of the principles and institutions of American state and local government. Meets Area 3A general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

POS2601 THE AMERICAN CONSTITUTION  (3)
A study of the basic elements of the U.S. Constitution as they impact society and the individual. Emphasis is placed upon the document's theoretical, as well as, pragmatic applications. Course is taught from perspectives which are primarily historical and cultural.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PSCI121 PHYSICAL SCIENCES SURVEY  (3)
A survey of physical sciences for the non-science major. An integrated approach is used to introduce topics in astronomy, chemistry, geology, meteorology and physics. It is recommended that students take the companion laboratory, PSCL1191L. Three hours weekly. Meets Area 4B general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Prerequisite: MAT0024
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PSCI121L PHYSICAL SCIENCES LABORATORY  (1)
Experiments and exercises which supplement topics covered in PSCL121. Special fee is charged. Meets Area 4C general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or
Pre or Corequisite: PSCL121
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=10.00
PSIC1341 FUNDAMENTALS OF PHYSICS AND CHEMISTRY (6)
This course is designed for students in the Teacher Education Alliance. Major concepts and principles of physics and chemistry will be covered. Practical applications of the scientific method will be stressed. Hands on activities and demonstrations will be included. Placement by Testing Department or Prerequisite: MAT1033
Lec Hrs=96 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PSY2012 GENERAL PSYCHOLOGY (3)
Scientific approach to basic principles of human behavior. Emphasis is placed on such topics as learning motivation, perception, feeling and emotion, intelligence, and personality. Meets Area 3B general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PSY2012L GENERAL PSYCHOLOGY LAB (1)
This laboratory course parallels and supplements the instruction given in General Psychology (PSY2012). Illustrated in this course is a variety of experimental and behavioral activities that demonstrate the scientific basis of psychology.
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=3.00

PSY2043 ADVANCED GENERAL PSYCHOLOGY (3)
The rationale, methods, and application of the scientific analysis of behavior. Emphasis is placed on the lawfulness of behavior, how behavioral laws are found and used in the modification of behavior. Prerequisite: PSY2012
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=8.00

PSY2905 INDEPENDENT STUDY IN PSYCHOLOGY (3)
Directed study course in the Behavioral Sciences. The course will be available to both majors and non-majors who wish to investigate a particular problem. The student will make application for the course to the Head of the Behavioral Sciences Department via an Instructor.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

PSY2930 SPECIAL TOPICS: PSYCHOLOGY (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the PSY2930 title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

QMB2100 QUANTITATIVE METHODS IN BUSINESS (3)
This course applies quantitative methods to business problems with emphasis on learning to select the appropriate problem solving method, applying the chosen method, and interpreting the solution. The use of quantitative methods in managerial decision making is a continuous focus of this course. Management problems are used and written managerial recommendations are required.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1001 INTRODUCTION TO RADIATION THERAPY (3)
An introduction to the clinical institution and the radiation therapy department. Stresses the ethics of patient/oncologist/therapist relationship, nursing procedures, safety precautions necessary for therapy patients, and the keeping of records. 3 hrs. lec. Prerequisite: Program Admission.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1021C INTRO TO RADIATION THERAPY CLINICAL (2)
A course designed to provide knowledge and hands-on instruction in the application of radiation therapy procedures with a detailed study of instrumentation prior to actual patient contact. Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1111 RAT1111L
Lec Hrs=16 Lab Hrs=32 Oth Hrs=0 Fees=25.00

RAT1111 RADIOGRAPHIC PROCESSES (2)
Provides the student with instruction on the principles of radiographic exposure, the processing of film and the positioning of patients for simulated procedures. Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1021C RAT1111L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=20.00

RAT1111L RADIOGRAPHIC PROCESS LAB (1)
Laboratory experience exposing phantom body parts to x-radiation to allow therapy students to practice radiographic imaging and film processing techniques. Laboratory accompanies RAT1111 lecture. Prerequisite: RAT1001 RAT1614
Pre or Corequisite: RAT1021C RAT1111L
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

RAT1614 INTRO RADIATION THERAPY PHYSICS (3)
Introduction to the fundamentals of physics involved in the production of x-radiation to include: mathematics, electricity, electro- magnetism, x-ray interactions and the radiographic tube.
Pre or Corequisite: RAT1001
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1651 INTRODUCTION TO DOSIMETRY (2)
A study of the skills necessary to develop as a dosimetrist in the clinical setting. Prerequisites: Program Admission.
Pre or Corequisite: RAT1652 RAT1655 RAT1655L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1652 ADVANCED DOSIMETRY I (3)
The study of patient dosimetry for radiation therapy including planning techniques for external beam and brachytherapy. Prerequisites: Program Admission.
Pre or Corequisite: RAT1653 RAT1655 RAT1655L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1653 TREATMENT ACCESS. FAB., LOCALIZATIO (2)
A study of fabrication of treatment accessories, tumor localization and simulation. Prerequisite: Program Admission.
Pre or Corequisite: RAT1651 RAT1652 RAT1655
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1654 ADVANCED DOSIMETRY II (3)
A continuation of the study of dose calculations including the combination of multiple modalities of treatment methodology with emphasis on comparison of treatment techniques for selected anatomical sites.
Prerequisite: RAT1651 RAT1655 RAT1942
Pre or Corequisite: RAT1654 RAT1659 RAT1902C
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1655 MEDICAL PHYSICS AND INSTRUMENTATION (2)
A review and in-depth presentation of radiation physics including but not limited to matter, energy, and radiation principles of x-ray and radioactivity, interaction of x and gamma rays. Radiation protection to include state and federal regulations. An introduction to various radiation detection instrumentation. Prerequisite: Program Admission.
Pre or Corequisite: RAT1651 RAT1652 RAT1655L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=25.00

RAT1655L MEDICAL PHYSICS AND INSTRUMENTATION (1)
A course designed to provide hands-on instruction in radiation detection instrumentation. Prerequisites: Program Admission.
Pre or Corequisite: RAT1652 RAT1653 RAT1655
Lec Hrs=0 Lab Hrs=16 Oth Hrs=0 Fees=25.00

RAT1656 PHYSICS & BASIC BIOMEDICAL ELECTRON (2)
A continuation of the study of radiation physics with emphasis on the modern radiation therapy treatment modalities, external and brachytherapy. Basic principles of medical electronics to include instrument troubleshooting and electrical safety in the patient care environment.
Prerequisite: RAT1651 RAT1655 RAT1942
Pre or Corequisite: RAT1654 RAT1659 RAT1902C
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1659 ADVANCED QUALITY ASSURANCE (2)
An in-depth study of the rationale, principles and the methods of quality assurance as they relate to radiation therapy.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1654 RAT1656 RAT1902C
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT1804 CLINIC EDUCATION I (3)
Patient treatment competencies are assigned under the direct supervision of a registered radiation therapist. Complexity is commensurate with level of education.
Prerequisite: RAT1021C RAT1111 RAT1111L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=19.26

RAT1902C COMPUTER TREATMENT PLANNING LAB (3)
A study of the computers utilized in radiation therapy treatment planning and the generation of computerized treatment plans.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1654 RAT1656 RAT1659
Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=25.00

RAT1942 CLINIC EDUCATION I (3)
Under the direct supervision of the medical Dosimetrist and/or Medical Physicist, the student participates in medical dosimetry practices in a local radiation therapy department. This will encompass basic treatment planning, simulation, and quality assurance. Prerequisite: Program Admission.
Pre or Corequisite: RAT1652 RAT1653 RAT1655
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=49.21

RAT1944 CLINIC EDUCATION II (3)
Under the direct supervision of the Medical Dosimetrist and/or Medical Physicist the student participates in medical dosimetry practices in a local Radiation Therapy Department. This will improve on the skills developed in Clinic I in the area of treatment planning, simulation, and quality assurance.
Prerequisite: RAT1651 RAT1655 RAT1655L
Pre or Corequisite: RAT1654 RAT1659 RAT1902C
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=150.95

RAT1946 CLINIC EDUCATION III (5)
Under the direct supervision of the Medical Dosimetrist and/or Medical Physicist, the student participates in medical dosimetry practices in a local radiation therapy department. This is the most advanced clinical education and successful completion of this course will ensure that the student is competent upon graduation to assume all of the responsibilities required of a medical dosimetrist.
Prerequisite: RAT1654 RAT1902C RAT1944
Lec Hrs=0 Lab Hrs=0 Oth Hrs=640 Fees=49.21

RAT2021 PRINCIPLES OF RADIATION THERAPY I (3)
An introduction to the principles of radiation therapy and protection providing the student with basic concepts to prepare him/her for clinical education.
Prerequisite: Program Admission.
Pre or Corequisite: RAT2023 RAT2617 RAT2814
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2022 PRINCIPLES OF RADIATION THERAPY II (3)
A continuation of the fundamentals of technology applications in simulation and patient treatment.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2241 RAT2618 RAT2619
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2023 RADIATION ONCOLOGY (3)
A study of the fundamentals of clinical radiation oncology stressing the following: etiology, epidemiology, histopathology, symptoms, diagnosis, staging, prognosis and the therapeutic aim of malignant conditions.
Prerequisite: Program Admission.
Pre or Corequisite: RAT2021 RAT2617 RAT2814
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2240 RADIATION PATHOLOGY (3)
An introduction to the concept of disease and general pathology. The types of growth, causative factors and biological behavior of neoplastic diseases are stressed. Pharmacology with emphasis on the radiation therapy patient is included in this course.
Pre or Corequisite: RAT2021 RAT2023 RAT2617
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2241 RADIOBIOLOGY (2)
A study of the sequence of events following the absorption of energy from ionizing radiation. Factors influencing radiation effects, tissue sensitivity, tolerance, and clinical applications are considered.
Prerequisite: RAT2021 RAT2240 RAT2617
Pre or Corequisite: RAT2022 RAT2618 RAT2619
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00
RAT2617 ADVANCED RADIATION THERAPY PHYSICS (3)
The fundamentals of x-ray, gamma, and corpuscular radiation as applied to radiation therapy. Teletherapy units and nuclear reactors are also discussed. 
Prerequisite: RAT2021 RAT2023 RAT2814 
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2618 ADVANCED RADIATION PHYSICS II (3)
Advanced physics of ionizing radiation including measurements, dosages, absorption, isodose curves, filters, radioactive materials treatment planning, properties of radionuclides, radiation safety and health physics.
Pre or Corequisite: RAT2021 RAT2022 RAT2023 RAT2241 RAT2617
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2619 DOSIMETRY AND COMPUTER TREATMENT PL (2)
The study of radiation dose measurement and instrumentation usage. The need for accuracy is stressed.
Prerequisite: RAT2022 RAT2241 RAT2618 RAT2657 RAT2824
Corequisite: RAT2619L
Pre or Corequisite: RAT2834
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2619L DOSIMETRY AND COMPUTER TREATMENT PL (1)
Introduction to computer application in treatment planning in brachytherapy and external beam treatments.
Prerequisite: RAT2022 RAT2241 RAT2618 RAT2657 RAT2824
Corequisite: RAT2619
Pre or Corequisite: RAT2834
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

RAT2657 QUALITY ASSURANCE AND PHARMACOLOGY (3)
Will present an in-depth study of the principles and concepts of quality assurance and pharmacology to include the history, theory, biological effects and their relationship to oncology.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2022 RAT2241 RAT2618
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RAT2814 CLINIC EDUCATION (3)
Patient treatment competency assignments are continued in clinic. The student's responsibilities increase as more complex competencies in patient treatment are mastered.
Prerequisite: Program Admission. 
Pre or Corequisite: RAT2021 RAT2023 RAT2617
Lec Hrs=48 Lab Hrs=0 Oth Hrs=384 Fees=28.21

RAT2824 CLINIC EDUCATION (3)
Advanced clinical education stressing practical application of dosimetry competencies under the direct supervision of a medical physicist or dosimetrist. Continuation of advanced patient treatment competencies under the supervision of a registered radiation therapy technologist.
Prerequisite: RAT2021 RAT2023 RAT2617
Pre or Corequisite: RAT2241 RAT2618 RAT2619
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=28.21

RAT2834 CLINIC EDUCATION (5)
The most advanced clinical education as evidenced by the level of competency of the student upon completion of clinic

RAT2824. Successful completion of this course will ensure that the student is competent upon graduation to assume all of the responsibilities required of a Registered Radiation Therapy Technologist.
Prerequisite: RAT2241 RAT2618
Pre or Corequisite: RAT2619 RAT2619L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=512 Fees=28.21

REA0001C COLLEGE PREPARATORY READING I (4)
This course teaches basic reading skills, vocabulary, word recognition skills, and work-study skills. Placement in REA0001C is determined by CPT test scores. An EAP0320C student must have an A, B, or C in EAP0320C and have taken the CPT reading subtest to place into REA0001C.
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=20.00

REA0006C COLLEGE PREPARATORY READING II (4)
Teaches basic reading and study skills to prepare students for college course work. An EAP0320C student must have a A, B, or C in EAP0320C and have taken the CPT reading test to place into REA0006C. Special fee charged.
Prerequisite: Completion of REA0001C with a grade of "C" or higher or placement by assessment test or department recommendation.
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=20.00

REA105 COLLEGE READING STRATEGIES (3)
Teaches efficient reading abilities, comprehension, vocabulary, speed, study techniques, and reading skills necessary to conduct investigative research. REA1105 includes all CLAST skills.
Lec Hrs=48 Lab Hrs=16 Oth Hrs=0 Fees=0.00

REA1205 ADVANCED COLLEGE READING II (3)
Increases speed, improves analytical, inferential, and critical reading abilities, and teaches advanced study techniques. Special fee charged. Placement by scoring a minimum of 40th percentile on a national college reading test or instructor approval or
Prerequisite: REA1105
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=5.00

REE1040 FLORIDA REAL ESTATE COMMISSION I (4)
The Real Estate Commission Course I. It provides an introduction to the basic principles and theories of real property, its economic value, and the legal aspects of real estate law affecting salespersons. Successful completion qualifies a candidate to apply for the State of Florida Salesperson's License Exam.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

REE1210 REAL ESTATE FINANCE (3)
This course covers the basics of real estate lending with an emphasis on commercial property. Topics covered include legal issues in real estate lending, risk, appraising income property, and financing of different types of commercial properties.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

REL1210 OLD TESTAMENT HISTORY (3)
Reading the English Bible in various documents, and examining selected source material, with emphasis on its cultural importance today.
REL1240 NEW TESTAMENT HISTORY (3)
A study of the social, historical, cultural, and religious environment of the New Testament as well as of the dynamics of the beginnings and spread of the Christian Faith during the First Century A.D. and into the Second Century A.D.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

REL2000 INTRODUCTION TO THE STUDY OF RELIGION (3)
An introduction to the study of religion as an academic discipline. The focus of the course is religion, not religions; an attempt is made to acquaint the student with the problems and issues ever present in the understanding of religious phenomena. Meets Area 2G general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: College-level reading skills
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

REL2300 WORLD RELIGIONS (3)
Primarily an ideological examination of the world’s most popular religions. Meets Areas 2G and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree.
Prerequisite: College-level reading skills
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

REL2930 SPECIAL TOPICS: RELIGION (3)
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the REL2930 course title published in the course schedules for each term that the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET1026 RESPIRATORY THERAPY EQUIPMENT (3)
This course reviews all of the normally used respiratory therapy equipment except that used for artificial mechanical ventilation or diagnostic procedures. Especially emphasized are methods of manufacturing, storing and administering oxygen; humidity and aerosol therapy, cleaning and sterilization techniques and airway management. Term I.
Prerequisite: BSC1085, CHM1033, MAT1033 or MTB1310. Corequisite: RET1026, RET1026L.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET1026L RESPIRATORY THERAPY EQUIPMENT LAB (1)
This course allows the student to work with and master the manipulative skills required to utilize respiratory therapy equipment. Emphasis is on oxygen, humidity and aerosol therapy, and airway management.
Prerequisite: BSC1085, CHM1032, MAT1033
Pre or Corequisite: RET1026
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=10.00

RET1240 MECHANICAL VENTILATION (3)
This course describes the techniques and hazards of artificial ventilation including IPPB, IMV, CPAP, and PEEP. The principles and operation of all commonly used ventilators are emphasized.
Prerequisite: RET1026, RET1026L, RET1485
Pre or Corequisite: RET1264L, RET1484, RET1832L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET1264L MECHANICAL VENTILATION LAB (1)
This course allows the student to work with and master the skills required to manage those ventilators commonly used for life support systems and for therapeutic modalities.
Prerequisite: RET1026, RET1026L, RET1485
Pre or Corequisite: RET1264, RET1484, RET1832L
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=10.00

RET1484 CARDIO PULMONARY PATHOPHYSIOLOGY (3)
This course is designed to introduce the students to the basic concepts of cardiopulmonary disease. Included are mechanisms of altered lung structure, airway caliber, neurogenic control and pulmonary vascular function.
Prerequisite: RET1026, RET1026L, RET1485
Pre or Corequisite: CVT1200, RET1264, RET1264L, RET1832L
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET1832L RESPIRATORY THERAPY CLINIC I (3)
In this first clinical course, the students are oriented to, and work at, tasks of a non-critical nature. Included are oxygen and aerosol administration, chest physiotherapy, IPPB administration, and incentive spirometry. Special fee is charged.
Prerequisite: RET1026, RET1026L, RET1485
Pre or Corequisite: CVT1200, RET1264, RET1484
Lec Hrs=0 Lab Hrs=256 Oth Hrs=23.05

RET1833L RESPIRATORY THERAPY CLINIC II (3)
This clinic course represents continuation of the activities in Clinic I. By the end of this term the student must have mastered all non-critical care duties normally performed by respiratory therapists and the fundamentals of adult critical care. Special fee is charged.
Prerequisite: CVT1200, RET1264, RET1484, RET1832L
Pre or Corequisite: RET2418
Lec Hrs=0 Lab Hrs=96 Fees=20.05

RET2286 MANAGEMENT OF THE INTENSIVE CARE PA (2)
This course includes nephrology, renal anatomy and physiology, fluid and electrolyte disorders, and therapy. Additional topics are the management of arrest, of shock, and airway care of the post-op heart patient and labs blood pressures.
Prerequisite: RET2503, RET2714, RET2834L
Pre or Corequisite: RET2601, RET2835L
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2414 RESPIRATORY THERAPY PULMONARY FUNCT (1)
RET2414 pulmonary function: refined techniques in spirometry gas analysis, and theory of arterial blood gas analysis are discussed. Mass screening and other techniques in diagnosis of respiratory disease are given.  
Prerequisite: RET1485  
Pre or Corequisite: RET2414L  
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2414L PULMONARY FUNCTION LAB (1)  
This course provides the opportunity to practice the techniques used for spirometric determination of lung volumes and flow rates and the basic principles of cardiopulmonary stress testing.  
Prerequisite: RET1485  
Pre or Corequisite: RET2414  
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

RET2418 CARDIOPULMONARY DIAGNOSTICS AND TEC (2)  
This course examines cardiac anatomy, physiology, and diseases. Diagnostic procedures include EKG's cardiac catheterization, cvp, swanganz and arterial lines, shunt and cardiac output determination. Drug and other therapeutic regimens are discussed.  
Prerequisite: CVT1200 RET1485 RET1832L  
Pre or Corequisite: RET1833L  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2503 ADVANCED CARDIOPULMONARY PATHOPHYSI (2)  
An in-depth examination of the most commonly encountered cardiopulmonary diseases from the physician's clinical perspective. Emphasized are pathology, physical examination, diagnosis and clinical management.  
Prerequisite: RET1833L RET2418  
Pre or Corequisite: RET2414 RET2714 RET2834L  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2601 RESPIRATORY THERAPY MANAGEMENT (1)  
This course is designed to assist the student in successfully making the transition from the role of a student to that of a competent member of the health care team. The attainment of the course objectives will provide the student with an understanding and appreciation for the complexity and comprehensiveness of the health care delivery system. Such an understanding will allow the student to assume his rightful role within the health delivery system and enable him to adjust to the dynamics of the system in positive ways that will ensure his or her growth and success.  
Prerequisite: RET2503 RET2714 RET2834L  
Pre or Corequisite: RET2286 RET2835L  
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2714 PEDIATRIC AND NEONATAL RESPIRATORY (3)  
This course emphasizes pediatric and neonatal diseases, their etiology and treatment. It encompasses the newest equipment and techniques used in monitoring and maintaining the infant patient.  
Prerequisite: RET1833L RET2418  
Pre or Corequisite: RET2414 RET2503 RET2834L  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RET2834L RESPIRATORY THERAPY CLINIC III (3)  
This clinical course is designed to introduce the student to all aspects of respiratory therapy critical care. The students will work primarily with patients requiring continuous ventilatory support. Special fee is charged.  
Prerequisite: RET1833L RET2418  
Pre or Corequisite: RET2414 RET2503 RET2714  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=256 Fees=20.05

RET2835L RESPIRATORY THERAPY CLINIC IV (3)  
This is a continuation of the activities in Clinic III. The student's responsibility will increase as his clinical skills become more sophisticated. By the end of this term the student will assume all of the responsibilities required of critical care therapists with patients requiring ventilatory management or support. Special fee is charged.  
Prerequisite: RET2414 RET2503 RET2834L  
Pre or Corequisite: RET2286 RET2601  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=256 Fees=20.05

RET2934 SELECTED TOPICS IN RESPIRATORY CARE (1)  
This course is designed as a review for Respiratory Care credential examinations and to examine new technologic and therapeutic changes in the Respiratory Care management of patients in critical care.  
Pre or Corequisite: RET2503 RET2834L  
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1000 INTRODUCTION TO RADIOLOGIC TECHNOLO (3)  
The organization and operation of a radiology department; radiologic procedures to include radiation protection, darkroom technique, basic exposure factors, films and film holders, and professional development. Prerequisite: Program Admission.  
Pre or Corequisite: RTE1111 RTE1503 RTE1804  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1111 NURSING PROCEDURES RADIOLOGIC TECHN (2)  
Nursing procedures and patient care issues, as related to diagnostic procedures in radiologic technology. Topics include: legal ethics, infection control, basic patient care, body mechanics, medical emergencies, patients with special needs, pharmacology and drug administration.  
Pre or Corequisite: RTE1000 RTE1503 RTE1804  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1418 PRINCIPLES OF IMAGING I (2)  
A study of the production and properties of X-radiation, primary exposure factors as they relate to the formulation of radiographic technique, the properties and characteristics of films/film holders and the primary factors of radiographic quality.  
Prerequisite: RTE1000 RTE1111 RTE1503  
Pre or Corequisite: RTE1513 RTE1613 RTE1814  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1418L PRINCIPLES OF IMAGING I LAB (1)  
Practical application of theory taught in RTE1418. Students perform laboratory experiments to demonstrate concepts taught in lecture.  
Prerequisite: RTE1000 RTE1111 RTE1804  
Pre or Corequisite: RTE1513 RTE1613 RTE1814  
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=25.00

RTE1503 RADIOGRAPHIC ANATOMY AND POSITIONIN (3)
Anatomy and radiographic techniques related to the chest, abdomen, upper and lower gastrointestinal tract, biliary, and urinary systems. Prerequisite: Program Admission. Pre or Corequisite: RTE1000 RTE1111 RTE1503L

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1503L RADIOGRAPHIC ANATOMY AND POSITIONIN (1)
Practical application of theory taught in RTE1503 class. Students practice techniques relating to radiography of the chest, abdomen, upper and lower gastrointestinal tracts, biliary, and urinary systems. Prerequisite: Program Admission. Pre or Corequisite: RTE1000 RTE1111 RTE1503

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

RTE1513 RADIOGRAPHIC ANATOMY AND POSITIONIN (3)
The principles of radiographic anatomy and positioning related to the upper and lower extremities including the shoulder and pelvic girdle and the spine to include sacrum and coccyx. Students will learn anatomy of the body parts and the radiographic positions/projections routinely employed in the imaging of these parts. Prerequisite: RTE1000 RTE1111 RTE1503

Pre or Corequisite: RTE1418 RTE1513L RTE1613

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1513L RADIOGRAPHIC ANATOMY AND POSITIONIN (1)
Laboratory course content parallels the material taught in the lecture portion (RTE1513) which must be taken concurrently with this lab. Course content will include the same topics covered in lecture, i.e., the upper and lower extremity, including shoulder and pelvic girdle and the vertebral column to include sacrum, coccyx and trauma/mobil radiography. Prerequisite: RTE1000 RTE1111 RTE1503 RTE1503L RTE1804

Pre or Corequisite: RTE1418 RTE1418L RTE1513

Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=20.00

RTE1561 NON-ROUTINE PROCEDURES (1)
The principles of Radiographics Anatomy related to the vascular system, central nervous system, respiratory system, reproductive system and joints. The contrast media employed for each procedure will be studied. Specialized radiographic equipment used in special procedures as well as a variety of new positioning techniques are studied. Prerequisite: RTE2385 RTE2457 RTE2457L

Pre or Corequisite: RTE2854

Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RTE1613 RADIOGRAPHIC PHYSICS I (2)
Introduction to the fundamentals of physics involved in the operation of radiographic equipment to include: units of measurement, matter, energy, mechanics, magnetism, electrostatics, and electrodynamics. Prerequisite: RTE1000 RTE1111 RTE1503

Pre or Corequisite: RTE1418 RTE1513 RTE1814

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=5.00

RTE1804 CLINICAL EDUCATION I (2)
Provides the student with clinical experience in the hospital and involves the application of the theory covered in lecture. Also includes darkroom practice, principles of radiology and film critique. Meets 16 hours per week. Term I Prerequisite: Program Admission. Pre or Corequisite: RTE1000 RTE1111 RTE1503

Lec Hrs=0 Lab Hrs=0 Oth Hrs=256 Fees=45.05

RTE1814 CLINICAL EDUCATION II (2)
Continuation of RTE1804 with students performing radiographic examination under direct supervision in clinical education centers. Emphasis is placed on upper and lower extremities, fluoroscopic procedures and film critique. Meets 16 hours per week. Term II. Prerequisite: RTE1111 RTE1503 RTE1804

Pre or Corequisite: RTE1418 RTE1513 RTE1613

Lec Hrs=0 Lab Hrs=0 Oth Hrs=256 Fees=45.05

RTE1824 CLINICAL EDUCATION III (2)
A continuation of RTE1814 with students performing radiographic examinations under direct supervision. Emphasis is placed on the spine, thorax, and film critique. Students will begin to perform procedures unassisted. Meets 32 hours per week for 12 weeks. Term III, Year I.

Pre or Corequisite: RTE1418 RTE1513 RTE1814

Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

RTE1932C SPECIAL TOPICS (1)
Designed to prepare the student with the necessary knowledge and skills to perform in specialized areas that include: venipuncture and electrocardiography. Prerequisite: RTE1513 RTE1513L RTE1613 RTE1814

Pre or Corequisite: RTE1824

Lec Hrs=16 Lab Hrs=16 Oth Hrs=0 Fees=0.00

RTE2385 RADIATION BIOLOGY AND PROTECTION (2)
Study of the biological effects associated with exposure to ionizing radiation and the accepted radiation protection principles and practices. Topics will include radiation sources, radiation/matter interaction modes, cellular, tissue and total body biological response patterns, radiation detection and measurement and Federal and State radiation protection guidelines relating to equipment and personnel.

Pre or Corequisite: RTE2523 RTE2523L RTE2623

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=5.00

RTE2457 PRINCIPLES OF IMAGING II (2)
A study of the factors that affect radiographic quality, solving technique problems and developing technique charts.

Pre or Corequisite: RTE2523 RTE2523L RTE2623

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=5.00

RTE2457L PRINCIPLES OF IMAGING II LAB (1)
Practical application of theory taught in RTE2457 class. Students perform laboratory experiments to demonstrate factors affecting radiographic quality. Prerequisite: RTE2523 RTE2623 RTE2834

Pre or Corequisite: RTE2385 RTE2457L RTE2844

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=25.00

RTE2473 RADIOGRAPHIC QUALITY ASSURANCE (2)
Practices and procedures related to radiographic quality assurance and quality control.

Pre or Corequisite: RTE2523 RTE2623 RTE2782

Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=5.00

RTE2523 RADIOGRAPHIC ANATOMY AND POSITIONIN (3)
The principles of anatomy and positioning related to the skull to include facial bones, sinuses and mastoids; thorax to include ribs and sternum; mammary glands; trauma, pediatric and mobile radiography.

Prerequisite: RTE1824
Pre or Corequisite: RTE2523L RTE2623 RTE2782 RTE2834
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**RTE253L RADIOGRAPHIC ANATOMY AND POSITIONIN**

Practical application of the theory taught in RTE2523. Students practice positioning of the cranium and facial area, bony thorax to include ribs and sternum and trauma and pediatric radiography.

Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2623 RTE2782 RTE2834
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=25.00

**RTE2563 ADVANCED VASCULAR/INTERVENTIONAL RA**

Provides advanced study into vascular/cardiovascular/interventional procedures for the special procedures radiographer. This course will provide an overall review of current and future vascular, as well as nonvascular intervention being performed to this date. Emphasis will be on diagnostic and therapeutic procedures and their application in a clinical setting. Prerequisite: graduation from an accredited radiography program.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=12.00

**RTE2573 SURVEY OF IMAGING MODALITIES**

A study of the imaging modalities which exist in conjunction with the radiology department to include nuclear medicine, diagnostic medical, sonography, C.T. scanning, radiation therapy, and magnetic resonance imaging.

Prerequisite: RTE2523 RTE2782 RTE2834
Pre or Corequisite: RTE2457 RTE2473 RTE2844
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**RTE2575 INTRODUCTION TO MAGNETIC RESONANCE**

A study of the clinical applications and principles of Magnetic Resonance Imaging. Basic MR physics, history, hardware, safety, and important aspects of the MR exam are among the topics covered to introduce the student to the MR Imaging Technology profession. Prerequisites: Graduation from a two year allied health program.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=12.00

**RTE2623 RADIOLOGIC EQUIPMENT**

A study of the physical basis of operation of radiographic equipment. Emphasis includes x-ray equipment circuitry and components, x-ray tubes, image intensifiers, TV monitors and video recorders, serial film changers, multi-phasic generators, conventional and digital image subtraction equipment, digital equipment, non-film imaging equipment, accessory equipment and x-ray production and interaction process processes.

Prerequisite: RTE1824
Pre or Corequisite: RTE2523
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=10.00

**RTE2782 RADIOGRAPHIC PATHOLOGY**

An introduction to the study of human disease and the radiographic appearances of specific diseases. Topics will include: Pathogenesis, disease classification systems, and the study of specific diseases of the respiratory, skeletal, gastrointestinal, urinary, cardiovascular, nervous, hematopoietic, endocrine and reproductive systems with radiologic imaging considerations.

Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2523L RTE2623 RTE2834
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**RTE2834 CLINICAL EDUCATION IV**

A continuation of RTE1824 with students performing procedures taught in previous clinical courses. Emphasis is placed on radiography of the skull. The student is expected to work with indirect supervision. Meets 24 hours per week, includes film critique.

Prerequisite: RTE1824
Pre or Corequisite: RTE2523 RTE2623 RTE2782
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

**RTE2844 CLINICAL EDUCATION V**

A continuation of RTE2834 with students perfecting positioning skills and learning to work independently. Emphasis is placed on completing clinical competencies. Includes film critique. Meets 24 hours per week.

Prerequisite: RTE2523 RTE2782 RTE2834
Pre or Corequisite: RTE2385 RTE2457 RTE2457L
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

**RTE2854 CLINICAL EDUCATION VI**

A continuation of RTE2844 with students practicing skills independently. Includes rotation through the specialty areas of C.T., nuclear medicine, radiation therapy and ultrasound. Students use this clinical as their elective time and selectively choose an area of specialization. Term III, Session 2 (6 weeks).

Prerequisite: RTE2457 RTE2844
Pre or Corequisite: RTE1361
Lec Hrs=0 Lab Hrs=0 Oth Hrs=144 Fees=45.05

**RTV2000 INTRODUCTION TO RADIO AND TELEVISION**

An introduction to the broadcast media through which the students should gain an understanding of the historical, technical, legal, and critical aspects of radio and television media.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=15.00

**RTV2102 BROADCAST WRITING**

Designed to give students an opportunity to learn the style of presentation for different types of media/broadcast scripts. The course will emphasize practical broadcast writing skills, radio and television copy techniques and forms of commercial copy, as well as learning the special rules and regulations governing the presentation of materials "over the air." Instructor's approval or Prerequisite: ENC1101 ENC1102
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**RTV2241C TELEVISION PRODUCTION I**

In this course the student will acquire understanding of the theory and practice of television program production and directing with emphasis on studio production. There is a requirement of two hours of television laboratory production per week. Completion of RTV2000 recommended prior to taking this course.

Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=50.00

**RTV2949 CO OP WORK EXP**

(3)
A course designed to provide training in a student field of study through work experience. Students are graded on the basis of documentation of learning acquired as reported by students and employer. Prerequisite: Co-Op department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

RUS1120 BEGINNING RUSSIAN I (4)
Fundamentals of speaking, understanding, reading and writing. Classroom practice and exercises supplemented by language laboratory. Meets Area 8 general education requirements for the A.A. degree.
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

RUS1121 BEGINNING RUSSIAN II (4)
Continuation of RUS1120. Further development of the basic skills. Selected readings. Meets Area 8 general education requirements for the A.A. degree.
Prerequisite: RUS1120
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

SLS1001 STRATEGIES FOR SUCCESS (3)
This course is tailored for First Time in College students and provides opportunities to learn about Broward Community College and higher education, acquire and practice learning strategies, explore personal learning styles, identify career options, and develop life-long skills for responsible citizenship. Required for all degree seeking students that test into 3 college preparatory areas with two at the lowest level. Recommended for all new students.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SLS1261 LEADERSHIP (3)
The purpose of this course is to provide effective leadership skills for student leaders to help them develop an ethical, value grounded leadership style for future educational, organizational and community leadership roles.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SLS1301 CAREER PLANNING WORKSHOP (2)
This course is a study of the career decision making process. The student will learn the skills necessary for career decision making as it applies to their individual characteristics (including values, interests, abilities, goals, strengths, etc.).
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SLS1350 EMPLOYABILITY SKILLS (1)
This course is a study of the methods and techniques used in the job search process with particular emphasis on resume writing, interview techniques, employment communications, and job search strategies.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SLS1501 COLLEGE SUCCESS SKILLS (1)
This course is designed for first semester freshman students. It serves as an introduction to Broward Community College and assists beginning students in coping with challenges of college life, clarifying their goals and learning strategies and skills that will help them succeed in college and life.
Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1100 PRINCIPLES AND PROTOCOLS OF SONOGRAPHY (3)
An introduction to the basic approaches to sonographic scanning and scanning protocols for the abdomen and pelvis. Prerequisite: Program Admission.
Pre or Corequisite: SON1170
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1110 ABDOMINAL SONOGRAPHY I (3)
An introduction to the cross-sectional anatomy of the abdominal area and its recognition on sonographic visualization systems.
Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1121 SON1121I SON1214
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1111 ABDOMINAL SONOGRAPHY I (3)
An in-depth presentation of sonographs of the abdominal area stressing deviations from the norm and the studies to make a diagnostically acceptable study.
Prerequisite: SON1111I SON1121I SON1215
Pre or Corequisite: SON1122 SON1212I SON1215
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1121 SONOGRAPHIC OB/GYN I (3)
An introduction to the cross-sectional anatomy of the female reproductive system with and without an existing pregnancy. The sonographic recognition of the normal throughout all terms of pregnancy is presented.
Prerequisite: SON1100I SON1170
Pre or Corequisite: SON1111I SON1121I SON1214
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1122 SONOGRAPHIC OB/GYN II (3)
The detection of anomalies, pathology, deviation from normal and the planes which must be sonographically imaged for accurate diagnosis is stressed.
Prerequisite: SON1111I SON1121I SON1215
Pre or Corequisite: SON1112I SON1122I SON1215
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1141 SMALL PARTS SONOGRAPHY (3)
A general introduction to the areas of cardiac, eye, thyroid, prostate, scrotum, breast and other superficial structures.
Prerequisite: SON1112I SON1122I SON1212
Pre or Corequisite: SON1824
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1170 SONOGRAPHY OF THE CIRCULATORY SYSTEM (2)
An introduction to the hemodynamics of the circulatory systems and the sonographic imaging and Doppler assessment of the cardiac and vascular structures.
Prerequisite: Program Admission.
Pre or Corequisite: SON1100
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1211 MEDICAL SONOGRAPHIC PHYSICS I (3)
A study of the principles of diagnostic ultrasound, the fundamental properties of ultrasonic physics, stressing tissue interactions, and interfaces. Focusing characteristics, methods, intensity, and power considerations are introduced along with system resolution considerations.
Prerequisite: SON1100I SON1170
Pre or Corequisite: SON1111I SON1121I SON1214
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1212 MEDICAL SONOGRAPHIC PHYSICS II (3)
A continuation of the study of the properties of diagnostic ultrasound stressing the operation of diagnostic equipment,
the display systems, biological effects and quality assurance methods. Current developments in ultrasound are reviewed, discussed, and evaluated.
Prerequisite: SON1111 SON1211 SON1215
Pre or Corequisite: SON1112 SON1122
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1214 PRACTICAL ASPECTS OF SONOGRAPHY I
(3)
A study of the principles of diagnostic ultrasound and practical aspects of scanning techniques, film critique, film identification and patient care and handling as related to sonographic examination. Stressing the operation of diagnostic ultrasound equipment and routine images obtained.
Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1211 SON1215
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1215 PRACTICAL ASPECTS OF SONOGRAPHY II
(3)
Offering more advanced principles of diagnostic ultrasound, adding knowledge of pathological processes. Further presenting the practical aspects of scanning techniques, film critique, film identification and patient care and handling as related to sonographic examination. Stressing the correlation of all patient data, including sonographic images obtained to assist in the differential diagnosis process.
Prerequisite: SON1111 SON1211 SON1214
Pre or Corequisite: SON1112 SON1212 SON1814
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON1804 CLINIC A
(3)
Clinical education requiring application of the knowledge learned. Professionalism and personal interaction are stressed along with technical abilities. As the student progresses he or she will be performing examinations with less and less supervision.
Prerequisite: SON1100 SON1170
Pre or Corequisite: SON1111 SON1211 SON1215
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

SON1814 CLINIC B
(3)
A continuation of the learning by doing process where more responsibility in the form of decision making regarding anatomical areas and resultant imaging is assumed by the student being supervised. 24 Hr. clinical per week. Term II.
Prerequisite: SON1111 SON1211 SON1804
Pre or Corequisite: SON1112 SON1212 SON1215
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

SON1824 CLINIC C
(4)
Application of all the material presented requiring the student to make judgmental decisions regarding technical aspects, to interact in a professional manner with those with whom he or she comes in contact, and to generally progress to the point where, after successful testing, he or she may be accepted as a competent sonographer for general sonographic exams.
Prerequisite: SON1112 SON1122 SON1814
Pre or Corequisite: SON1141
Lec Hrs=0 Lab Hrs=0 Oth Hrs=384 Fees=45.05

SON2161 NEONATAL NEUROSONOLOGY
(2)
An introduction to the sonographic imaging of the neonatal and infant brain. Emphasis is placed on normal brain anatomy, congenital and acquired pathological conditions, as well as sonographic scanning techniques.
Prerequisite: SON2400 SON2834
Pre or Corequisite: SON2401 SON2844
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SON2171 VASCULAR SONOGRAPHY
(3)
Venous and arterial anatomy and hemodynamic functions, both normal and abnormal are stressed. Sonographic imaging techniques for vascular structures and Doppler spectral analysis of normal and pathological patterns are also studied.
Prerequisites: A.R.D.M.S.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=2.00

SON2175 VASCULAR SONOGRAPHY II
(3)
Arterial anatomy below the neck and head, and it's hemodynamic functions, both normal and abnormal, are stressed, along with sonographic imaging techniques for arterial vascular structures, non-imaging testing modalities, and Doppler analysis of normal and abnormal flow patterns.
Prerequisite: SON2174
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=2.00

SON2176 VASCULAR SONOGRAPHY III
(3)
Venous and arterial anatomy and hemodynamic functions of the circulatory system of the neck and head, both normal and abnormal, are stressed, along with sonographic imaging techniques for vascular structures and Doppler analysis of normal and abnormal flow patterns. An understanding of the process of test validation and interpretation of test results will be covered.
Prerequisite: SON2175
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=2.00

SON2400 SONOGRAPHY OF HEART/CHEST I
(3)
Anatomy of the heart and the procedures used in screening are introduced stressing recognition of the normal versus abnormal. Prerequisites: Program Admission or Permission by Program Manager and
Prerequisite: SON1141 SON1824
Pre or Corequisite: SON2834
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SON2401 SONOGRAPHY OF HEART/CHEST II
(3)
An in-depth presentation of the intricacies of diagnostic ultrasound as it applies to the heart and the chest stressing its capabilities and its limitations. 3 hrs. wk., Term II
Prerequisite: SON2400 SON2834
Pre or Corequisite: SON2161 SON2844
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SON2834 CLINIC D
(3)
A course designed to add additional clinical competencies to those gained in the specialties mastered in the first year. Emphasis on specialty of echocardiography with clinical application of classroom material presented. To continue to make judgement decisions regarding the technical aspects of diagnostic sonographic exams.
Prerequisite: SON1141 SON1824
Pre or Corequisite: SON2400
Lec Hrs=0 Lab Hrs=0 Oth Hrs=258 Fees=45.05

SON2844 CLINIC E
(3)
Application of all the materials presented requiring the student to interact in a professional manner, to make judgement decisions regarding the technical aspects, and to generally progress to the point where he/she may be accepted as a competent sonographer. Further mastering of all skills gained, emphasizing echocardiography and cardiovascular...
Course Descriptions

SPA1612 AMERICAN SIGN LANGUAGE I  
Upon completion of this course students will have acquired American Sign Language vocabulary totaling approximately 500 concepts, intermediate level linguistic principles of ASL and information related to deafness and deaf culture. Students should check individual university program requirements for transferability. On Demand.  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SPA1613 AMERICAN SIGN LANGUAGE II  
Upon completion to this course, students will have acquired American Sign Language vocabulary totaling approximately 500 concepts, intermediate level linguistic principles of ASL and information related to deafness and deaf culture. Content builds upon the foundation laid in SPA1612. After completing SPA1612 and 1613, students should have a receptive and expressive sign vocabulary of approximately 1000 concepts. Students should check individual university program requirements for transferability. On Demand.  
Prerequisite: SPA1612  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SPA2001 INTRODUCTION TO SPEECH DISORDERS  
Upon the completion of this course the student should have an understanding of the types, causes, and therapeutic methods relative to prime speech disorders with emphasis on pre-school and elementary school populations.  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SPA2614 AMERICAN SIGN LANGUAGE III  
Upon completion of this course, students will have acquired American sign language vocabulary totaling approximately 1500 concepts. Students are strongly advised to check with the college or university of their choice for acceptance of these credits to fulfill their entrance and/or exit language requirements. Meets Areas 5, 7 and 8 A.A. degree general education.  
Prerequisite: SPA1613  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SPA2615 AMERICAN SIGN LANGUAGE IV  
Upon completion of this course, students will have acquired ASL vocabulary totaling approximately 500 concepts. Conceptual accuracy in sign choices will be stressed. Advanced level linguistic principles will be covered including the linguistic and semantic differences between ASL and English. The course will emphasize receptive understanding of ASL through the study of native deaf signers. Indirect discourse for recounting stories will be emphasized. Content builds upon the foundation established in the three previous courses in ASL. After completing the four courses, students should have a receptive and expressive sign vocabulary of approximately 2000 concepts. Students are strongly advised to check with the college or university of their choice for acceptance of these credits to fulfill their entrance and/or exit language requirements.  
Prerequisite: SPA2614  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=5.00

SPC0252 PLAY PRODUCTION  
A course designed to investigate the problems of choosing and analyzing the script, casting, rehearsal, costuming, make-up, organization and management of the educational theatre.  
(3)
The techniques of acting, including expressive use of the body and voice in characterization. Exercises from various types of plays for business, movement, pacing, emotional expression, creation and projection of character.

**SPC0255 ACTING**  
(3)  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

This course is designed to provide students with the fundamentals of speech communication including speaking and listening. Topics include: intrapersonal, interpersonal, verbal, nonverbal, small group communication, and public speaking in various cultural contexts. Meets Areas 1C, 7, and 8 general education requirements for the A.A. degree. Meets Area 5 general education requirements for the A.S. degree.

**SPC1024 INTRODUCTION TO SPEECH COMMUNICATION**  
(3)  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

The techniques of acting, including expressive use of the body and voice in characterization. Exercises from various types of plays for business, movement, pacing, emotional expression, creation and projection of character.

**SPC1050 VOICE AND DICTION**  
(3)  
Lec Hrs=32 Lab Hrs=16 Oth Hrs=0 Fees=0.00

Upon completion of this course, the student should acquire an understanding of the speech mechanism, a knowledge of its proper use, and improvement of individual voice and diction.

**SPC1420 INTRODUCTION TO GROUP TECHNIQUES**  
(3)  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

Upon completion of this course, the student will have acquired communication skills that will enable him or her to function more effectively in various group settings utilizing group discussions and conference techniques to resolve social, business and professional problems.

**SPC1511 ARGUMENTATION AND DEBATE**  
(3)  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

The student, upon completion of this course, should achieve proficiency in the principles of argumentation including analysis, evidence, inference, and refutation as they pertain to the debate situation in democratic society.

**SPC1600 INTRODUCTION TO PUBLIC SPEAKING**  
(3)  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

This course is designed to provide students with fundamental training and practical experience for speaking in public, business, and professional situations. Topics include: audience analysis, speech anxiety, critical listening, and preparation and delivery of speeches in various cultural contexts. Meets Areas 1C, 7, and 8 general education requirements for the A.A. degree. Meets Area 5 general education requirements for the A.S. degree.

**SPC2300 INTRODUCTION TO INTERPERSONAL COMMUNICATION**  
(3)  
Lec Hrs=32 Lab Hrs=0 Oth Hrs=0 Fees=0.00

Upon completion of this course, the student should demonstrate an understanding of the basic concepts of interpersonal communication with emphasis on perception, self-awareness, dyadic communication, small group communication, and communication conflict.

**SPC2330 NONVERBAL COMMUNICATION**  
(3)  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

This course explores the various facets of nonverbal communication. The following nonverbal cues will be emphasized: movement, space, distance, physical characteristics, dress, object language, eye contact, signs, paralanguage, and environmental cues. The focus of the course will be the role that these cues play on communication.

**SPC1120 BEGINNING SPANISH I**  
(4)  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=15.00

Prerequisite: SPN1120  
Prerequisite: Instrcutor approval and/or
Prerequisite: SPN1120  
Lec Hrs=64 Lab Hrs=0 Oth Hrs=0 Fees=15.00

A course designed for students who wish to combine the study of Spanish with subsequent travel to a Spanish speaking region. Prerequisite: SPN1100 or SPN1000 or instructor's approval. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

**SPN1170 SPANISH STUDY TRAVEL**  
(3)  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

A custom made course for those residents in the community who require a cursory knowledge of Spanish to help them communicate with Spanish speaking people. One hour language laboratory weekly. Special fee charged. Meets Area 8 general education requirements for the A.A. degree.

**SPN1120 BEGINNING SPANISH II**  
(4)  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=15.00

Continuation of SPN1120. Further development of the basic skills in speaking, listening-comprehension, reading, writing, and Hispanic culture. Classroom practice and exercises supplemented by laboratory and/or multi-media designed to develop communicative competence and cultural sensitivity. Student expected to continue further implementation and expansion of their proficiencies in SPN1121 and SPN2220. Special fee charged.

**SPN1170 SPANISH STUDY TRAVEL**  
(3)  
Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

A course designed for students who wish to combine the study of Spanish with subsequent travel to a Spanish speaking region. Prerequisite: SPN1100 or SPN1000 or instructor's approval. Meets Area 8 general education requirements for the A.A. degree. Special fee charged.

**SPN2201 INTERMEDIATE SPANISH II**  
(3)  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

Emphasis on composition, reading comprehension and conversation. Interesting tour through Spanish history, geography, literature and current issues of Spain and Spanish America. The aim of the course is to give students a necessary background in the diverse culture of Spain and Spanish America, and to gain more fluency in oral and written expression. This course completes the intermediate year.

**SPN2220 INTERMEDIATE SPANISH I**  
(4)  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

Review of the most essential grammatical structures with an introduction of new grammatical and idiomatic material. Composition and readings in Spanish prose. Conversation at an easy and enjoyable pace. Meets Areas 2B and 8 general education requirements for the A.A. degree. Meets Areas 2 or 5 general education requirements for the A.S. degree. Special fee charged.
Course Descriptions

STA2023 STATISTICS 
A first course in statistical methods including such topics as collecting, grouping, and presenting data; measures of central tendency, position, and variation; theoretical distributions; probability; test of hypotheses; estimation of parameters; and regression and correlation. Use of statistical computer software and/or a scientific calculator (capable of performing 2-variable statistics) will be required. Meets Areas 5A or 6 of the general education requirements for the A.A. degree. Meets Areas 4 or 5 of the general education requirements for the A.S. degree. Recommendation of the Mathematics Department or at least a grade of "C" in the prerequisite course is required.
Prerequisite: MAT1033
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=20.00

SUR2001L SURVEYING I LAB 
The student is required to assume various duties as a member of a survey party. Field practice includes setting corner stakes, batter boards, bench marks. Prerequisite satisfied or instructor approval.
Prerequisite: MAC1105
Pre or Corequisite: SUR2001
Lec Hrs=0 Lab Hrs=48 Oth Hrs=0 Fees=40.00

SYG193JC TEA: SOCIAL, MULTICULTURAL ISSUES A 
This course is the third in a series of four professional seminars for students enrolled in TEA courses seeking an A.A. degree from BCC. General analysis of educational practices and their impact on students and society through a scientific consideration of modern social and multicultural forces on personal experiences, social behavior and academic performance.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SYG2010 SOCIAL PROBLEMS 
The study of the social and cultural aspects, incidence, and characteristics of selected social problems. Meets Area 3B general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SYG2212 SOCIETY AND THE ENVIRONMENT 
A study of humanity's social systems and the resulting impact of their technologies on the natural environment and natural life support systems.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SYG2230 CONTEMPORARY RACE AND ETHNIC STUDIE 
A study of minority dominant relations with emphasis on ethnic, racial, and religious minorities.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SYG2322 JUVENILE DELINQUENCY 
A study of juvenile and delinquent behavior and its development which focuses on the social structure of society to find patterns of delinquent activity and its causations.
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

SYG2323 INTRODUCTION TO CRIMINOLOGY 

A study of crime and criminal behavior, and its cause and related effects on society, with an emphasis given to criminal theory, and the sociological implications of criminal behavior.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2340 SOCIOLOGY OF HUMAN SEXUALITY (3)**
A survey of the sociological, psychological, and physiological sources of human sexuality and their impact on contemporary social attitudes and behavior.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2421 MARRIAGE AND FAMILIES: INTERCULTUR (3)**
A study of the institution of the family utilizing historical, cross cultural and sub-cultural comparisons to understand the background evolution and current familiar structures of the world.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2441 SOCIAL INSTITUTIONS (3)**
A study of the institutions of pre-industrial, industrial, and post-industrial societies. Special emphasis is on theories of social organization, social change, and the exploration of each institution in world societies. Meets Areas 3B and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2905 INDEPENDENT STUDY IN SOCIOLOGY (3)**
A directed study course in Sociology. The course will be available to both majors and non-majors who wish to investigate a particular problem. The student will make application for the course to the Head of the Behavioral Sciences Department via an instructor with whom he wants to work. Prerequisite to be ascertained by the instructor and the Department Head.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2930 SPECIAL TOPICS: CURRENT ISSUES IN (3)**
Course centers around topics of current interest or of special interest to students or instructors. Topics or focus may vary from semester to semester. Topics will be identified by the SYG2930 course title published in the course schedules for each term the course is offered. Special Topics credit hours are not automatically transferable. Transfer credit is the prerogative of the receiving institution.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2940 SOCIOLOGY FIELD SCHOOL (1)**
This course is designed to provide an on-scene study of sociological topics from the various perspectives provided in a field school setting. Laboratory research and observational techniques are used in providing the learning experiences of this course. Instructor's approval.

Lec Hrs=16 Lab Hrs=0 Oth Hrs=0 Fees=0.00

**SYG2942 SOCIOLOGY FIELD SCHOOL (3)**
This course is designed to provide an on-scene study of sociological topics from the various perspectives provided in a field school setting. Laboratory research and observational techniques are used in providing the learning experiences of this course in domestic and foreign social settings. Prerequisite: Instructor approval.

Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00
THE2051L CHILDREN'S THEATRE PRODUCTION  
Participation in the rehearsal and production of the Children's Theatre Program, which continues during the entire term.  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00  

THE2052L CHILDREN'S THEATRE TECHNICAL  
Participation in the technical aspects of the Children's Technical Theatre Program.  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00  

THE2100 INTRODUCTION TO THEATRE HISTORY  
An evolutionary study of the Theatre from the 5th century B.C. to the present day.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00  

THE2300 SURVEY OF DRAMATIC LITERATURE  
A study of plays from the time of the early Greek to the current dramatist in light of the historic, philosophical, socio-political milieu of the era that promulgates the particular genre. Plays will be analyzed from a dramaturgical point of view.  
Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00  

TPA1290 TECHNICAL THEATRE LAB I  
Participation as technician in the dramatic and musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.  
Lec Hrs=48 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPA1291 TECHNICAL THEATRE LAB II  
Participation as technician in the Dramatic and Musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.  
Lec Hrs=0 Lab Hrs=64 Oth Hrs=0 Fees=0.00  

TPA1292 TECHNICAL THEATRE LAB III  
Participation as technician in the Dramatic and Musical productions of the college. May be repeated four times for credit. Instructor's permission required for enrollment.  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00  

TPA2000C INTRODUCTION TO THEATRE DESIGN  
An introduction to the techniques, practices, and processes in scenic, lighting, costume, and sound design. The course includes a period styles overview, script analysis, and a survey of appropriate paperwork required by each area.  
Prerequisite: TPA2200  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPA2060 SET DESIGN  
Research and execution of the visual environment of the play. Assigned projects will include pencil and ink drawings, layouts, ground plans, elevations, renderings, and models.  
Prerequisite: TPA2200  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPA2192L SUMMER THEATRE/TECHNICAL PRODUCTION  
Participation in the technical aspects of a theatrical production including but not limited to stagecraft, stage management, properties, costuming, wardrobe, lighting, sound, stage makeup and house management.  
Corequisite: TPP2190L.  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00  

TPA2200 STAGECRAFT  
An investigation of the principles of stagecraft, lighting, props and set construction.  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPA2220 INTRODUCTION TO STAGE LIGHTING  
An historical background of theatrical lighting technology and design and an introduction to the tools and concepts used by the lighting technician from primitive equipment to the modern computer system.  
Prerequisite: TPA2200  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPA2248 MAKEUP FOR STAGE AND TELEVISION  
The theoretical and practical application of all types of straight and character make-up for the stage and television.  
Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPP190L PERFORMANCE LAB I  
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.  
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPP191L PERFORMANCE LAB II  
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.  
Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00  

TPP192L PERFORMANCE LAB III  
Upon successful completion of this course, students will be able to analyze and create a dramatic character on stage in a theatrical production of the college. For each production, students will learn to understand the genre of the play and adopt appropriate acting styles and techniques. They will learn how to uncover clues in the script which will reveal character objectives and tactics. Additionally, students will create characters through analysis, improvisation, and the development of psychophysical actions grounded in the given circumstances of the play. This information will guide the student actor to make distinct choices regarding the physical and vocal qualities of each character being portrayed.  
Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00
TPP2110 ACTING I (3) Study and development of acting skills concentrating on the student’s ability to believe and exist in imaginary circumstances as if they were real, and to transmit those beliefs clearly and artfully to an audience. Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2111 ACTING II (3) Building on the foundations established in Acting I, Acting II focuses on a close examination of the dramatic text which becomes the basis for character development and scene work. Students will analyze and perform two scenes during the term. Additional experience is also gained with the monologue by analyzing and performing two longer speeches. Prerequisite: TPP2110 Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2190L REHEARSAL AND PERFORMANCE I (3) Participation in the audition, rehearsal and performance process of a theatrical stage production. Corequisite: TPA2192L Lec Hrs=0 Lab Hrs=96 Oth Hrs=0 Fees=0.00

TPP2300C DIRECTING (3) An academic study and practical application of the art and craft of directing a play. An investigation of the components of the theatre experience as they relate to the work of the director. Prerequisite: TPP2111 Pre or Corequisite: TPA2200 TPP2500C TPP2700C Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2500C MOVEMENT FOR THE ACTOR (3) An academic study and practical application of body movement technique for the actor. Students will extend their own range of movement through vocal and physical effort training and free themselves from any personal movement habits. Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2531 STAGE COMBAT (1) Armed and unarmed combat techniques for the stage. Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2700C INTRO TO VOICE (3) An academic study and practical application of the efficient and effective use of the speaking voice, particularly in meeting the special demands of acting for the stage. Following a thorough introduction to the International Phonetic Alphabet students will learn the theories and principles of good voice and articulation of general American speech. The theories and principles of the course will be applied in written assignments, oral performances before the class, and through vocal exercises done in class, the learning resources language laboratory, and at home. Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

TPP2701C VOICE AND ARTICULATION II (3) Application of techniques studied in Intro to Voice, with emphasis on the study of vocal posture and the International phonetic Alphabet. Students will continue to improve articulation and pronunciation, as they learn to apply differentiation of sounds and adjustment of vocal posture to achieve a neutral American Dialect. Learned skills will then be utilized to master three popular stage dialects. The theories and principles of the course will be applied in written assignments, oral performances before the class, and through vocal exercises done in class, the learning resources language laboratory, and at home. Prerequisite: TPP2700C Lec Hrs=32 Lab Hrs=32 Oth Hrs=0 Fees=0.00

WOH1951 ISRAEL PROGRAM II (16) This is a holding course. A mechanism by which students enrolled in a study abroad program (Israel) can receive institutional credit. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

WOH1952 ISRAEL PROGRAM I (15) This is a holding course. A mechanism by which students enrolled in this travel and study abroad program (Israel) can receive institutional credit. Lec Hrs=0 Lab Hrs=0 Oth Hrs=0 Fees=0.00

WOH2040 WORLD IN THE 20TH CENTURY (3) An examination of the major political, social, economic, intellectual, diplomatic, and military developments and events of the 20th century. A chronological approach to several major themes which frame the history of the contemporary world; the decline of European hegemony in the course of two major wars and a world depression; the concomitant challenge to western supremacy from Asia; a half-century of superpower hostility following the outbreak of the Cold War; and the transformation of global politics in the course of declining superpower hegemony. Meets Areas 3A and 8 general education requirements for the A.A. degree. Meets Areas 3 or 5 general education requirements for the A.S. degree. Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ZOO2010 GENERAL ZOOLOGY (3) Basic course pertaining to the development, anatomy, physiology, genetics, ecology and natural relationships of the animal kingdom. Meets Areas 4A general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: ZOO2010L Lec Hrs=48 Lab Hrs=0 Oth Hrs=0 Fees=0.00

ZOO2010L GENERAL ZOOLOGY LABORATORY (1) Laboratory adventures and activities to accompany ZOO2010. one two-hour period weekly. Special fee charged. Dissection of animals is a component of this course. Meets Area 4C, general education requirements for the A.A. degree. Meets Areas 4 or 5 general education requirements for the A.A. degree. Meets 4 or 5 general education requirements for the A.S. degree. Placement by Testing Department or Pre or Corequisite: ZOO2010 Lec Hrs=0 Lab Hrs=32 Oth Hrs=0 Fees=38.00