COLLEGE CREDIT COURSE DESCRIPTIONS

Courses in this catalog are listed in alphanumeric order. The term "credit" as used in references to courses is equal to one semester hour. It means credit toward a degree from the College, and does not necessarily mean credit transferable to another institution. Courses offered exclusively by the Florida School of the Arts are described in the portion of this catalog devoted to the Florida School of the Arts on page 114.

BUSINESS

ACG 2021
Principles of Financial Accounting ◆
(4 Credits - 4 Hours)
Prerequisite: MTB 1103 with a grade of "C" or higher, or satisfactory scores on the math placement exam at the College Algebra level. The course is designed to familiarize the student with the theory, logic, and concepts used in financial accounting. Course content includes: journalizing, posting, preparing a trial balance, adjustments, corrections, and closing; preparation of the income statement, balance sheet, changes in owner's equity and cash flow statement; current assets, inventory, long-term assets and liabilities; corporate capital structure, retained earnings and financial statement analysis. Emphasis is placed on comprehension of accounting principles and concepts in addition to mastery of accounting skills.

ACG 2071
Principles of Managerial Accounting ◆
(3 Credits--3 Hours)
Prerequisite: ACG 2021 with a grade of "C" or higher. This course is designed to familiarize the student with the theory, logic and concepts used in managerial accounting. Course content includes: job-order costing, process costing, cost-volume-profit relationships, departmental accounting, profit planning, standard costs, flexible budgets, decentralized operations, pricing, and capital budgeting decisions. Emphasis is placed on comprehension of managerial accounting principles and concepts in addition to mastery of accounting skills.

APA 2502
Payroll Tax Accounting
(3 Credits--3 Hours)
Prerequisite: ACG 2021 with a grade of "C" or higher. A course designed to familiarize the student with the various Federal and State reporting requirements, and the concepts, laws and theories behind such reporting. Course content includes calculating overtime, gross pay, Federal and State income tax withholding, FICA and Medicare withholding and other deductions from pay. The student will also learn to complete Federal forms I-9, W-4, W-2, 1099-MICS, 940EZ, 940 and 941 as well as State unemployment compensation reports.

BAN 1004
Principles of Banking
(3 Credits--3 Hours)
This course addresses the major aspects of banking, from the fundamentals of negotiable instruments to contemporary issues and developments within the industry. This course articulates to the American Institute of Banking (General Banking Diploma).

BAN 2501
Money and Banking
(3 Credits--3 Hours)
Prerequisite: ECO 2013.
This course presents a fundamental treatment of how money functions in the U.S. and world economics. Topics include the concept of money supply and the role the bank plays as a money creator and participant in the nation's payment mechanism. Money and Banking also explains how the various types of financial institutions operate, the workings of monetary and fiscal policies, the functions and powers of the Federal Reserve, and more. This course articulates to the American Institute of Banking (General Banking Diploma).

BUL 1241
Legal Environment of Business I ◆
(3 Credits--3 Hours)
A study of the environment in which businesses operate. Consideration is given to legal and social constraints on business. The student is introduced to the judicial system; administrative, tort, and contract law; agency; business organizations; and governmental regulations.

BUL 2132
Legal Environment of Business II
(3 Credits--3 Hours)
A study of legal concepts in the business and commercial setting. Substantive areas to be covered include personal property, sales, commercial paper, secured transactions, real property, and estates.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

FIN 1100
Personal Finance ◆
(3 Credits--3 Hours)
A study of budgeting, borrowing, financial institutions, family finance, home ownership, insurance, estate planning, and the buying and selling of stocks, bonds, and mutual funds. In addition, the correlation between education and income will be discussed.

GEB 1011
Introduction to Business ◆
(3 Credits--3 Hours)
A study of business organization, management and ownership, wholesaling, retailing, advertising, international trade, employee training, compensation and labor relations, financing, risk and security markets, accounting and controls, business regulations, and taxes.

MAN 1949
Cooperative Education I
(3 Credits - 3 Hours)
A cooperative work experience assignment for the student developed in conjunction with the student, employer, and coordinator. This course recognizes the informal educational process that occurs while employed. The student is responsible for obtaining his/her own employment. A minimum of 15 hours employment per week is required during fall and spring terms, and 30 hours per week for summer "A" and summer "B" terms. Evaluation is based on completion of the work experience, employer and coordinator evaluations, and assigned projects. The student is required to attend class only one time which is during the first week of classes for orientation.

MAN 2949
Cooperative Education II
(3 Credits - 3 Hours)
Prerequisite: MAN 1949.
A continuation of MAN 1949.

MAN 2021
Principles of Management ◆
(3 Credits--3 Hours)
Prerequisites: None. This introduction to the world of management with emphasis on the mid-manager. Topics include the fundamental knowledge base, including motivation, behavioral processes, group dynamics, organizational structure, systems, and change. The management processes studied include decision making, planning and policy making, organization, leadership and control. Emphasis is also placed on communication skills.

MAN 2300
Human Resource Management
(3 Credits--3 Hours)
Prerequisites: None. An introduction to the role of human resources management. Topics include the personnel management system, maximizing employee potential, organizational behavior, labor management relations, remuneration, security, and assessment research. The course may include student projects and case studies.

MAR 2011
Principles of Marketing ◆
(3 Credits--3 Hours)
Prerequisite: None. This is a study of basic marketing principles, theory, and functions of marketing. The course is designed to provide fundamental knowledge in the field, with the foundation necessary for further study in business or marketing.

MKA 2021
Principles of Salesmanship
(3 Credits--3 Hours)
Prerequisite: None. This course is an introduction to the professional side of salesmanship. There is an emphasis on the role of salespeople in the free enterprise system, application of sales principles, components of the sales presentation, and an introduction to sales management, buying motives, customer approach, and sales techniques. Students are required to make a sales presentation.

MTB 1103
Business Mathematics
(3 Credits--3 Hours)
Prerequisite: Satisfactory scores on the placement examination. A course designed to give students an understanding and application of mathematical concepts to business activities and to increase competence in the fundamental business mathematical skills. Mastery of mathematical concepts and the solving of problems involved in business: payrolls, depreciation, bank statements, interest, discounts, notes, insurance, taxes, commissions, financial statements, business stocks and bonds, annuities, and statistical data.

OST 1100
Keyboarding I *
(3 credits--3 hours)
Students learn the touch system of keyboarding and how to format personal and business letters standard memos, simple reports, tables and electronic communications using Microsoft Word software.

OST 1110
Professional Keyboarding *
(3 credits--3 hours)
Prerequisite: OST 1100 or High School Credit.
Continuation of OST 1100. This course is designed for the student to develop document mastery and an expert level of word processing skills. Students prepare more advanced styles of business correspondence, tables, reports and administrative and employment documents.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

OST 1355
Electronic Records Management *
(3 Credits--3 Hours)
Insight into the storage of records in business, both manual and electronic, with emphasis on ARMA rules of organization. MS Access software is used to update and manage files and create reports.

OST 1435
Legal Terminology
(3 Credits--3 Hours)
A technical skill course designed to make legal terminology understandable. Students learn the terminology naturally through reading about the law and practice using the terms.

OST 1581
Professional Development in the Work Environment
(3 Credits - 3 Hours)
This course is designed to provide techniques for the development of people skills essential for job success. Topics include developing a professional image, ethics, time management, human relations and communications skills, organizational dynamics, employability skills, conflict management skills, and money management.

OST 1764
MS Word for Windows *
(3 Credits--3 Hours)
Prerequisite: Ability to type. This is a beginning course in word processing concepts and procedures. Course topics include creating and editing text, page formatting, using a variety of fonts, printing, setting tabs, inserting tables columns and graphics, merging documents and creating basic Web pages. Microsoft Word for Windows is the software used in this class.

OST 1811
Desktop Publishing *
(3 Credits--3 Hours)
Prerequisite: OST 1764 with a grade of "C" or higher. Theory and hands-on training in desktop publishing using Microsoft Publisher software. Students will practice layout theory through completing a variety of projects including flyers, brochures, newspaper and magazine ads, and newsletters.

OST 1942
MOS Work Experience I
(3 Credits--3 Hours)
Prerequisites: Students must have completed one-half of their program of study. Must be attending work experience on-the-job training in one of the following programs and be approved for the work experience by the employer and program director. Cooperative work experience assignments for the students are developed in conjunction with the student, employer, and coordinator. This course recognizes the informal educational process that occurs while employed within the healthcare program of study. A minimum of 20 hours employment per week is required during the terms with an employer. Evaluation is based on completion of the work experience, employer and coordinator evaluations.

OST 1943
MOS Work Experience II
(3 Credits--3 Hours)
Prerequisite: OST 1942. A continuation of OST 1942. Instructor or employer approval required in the Health Information Management (Medical Record Coder) program.

OST 2335
Business Communications
(3 Credits--3 Hours)
Prerequisite: CGS 1100 or equivalent and placement test scores for ENC 1101 or completion of ENC 0020 with a grade of "C" or higher. This course is a study of the underlying principles of written and oral business and application communications for today's business world including letters, memos, and reports. Students will also practice oral communication with attention to posture, gestures and facial expression during the presentations.

OST 2431
Legal Office Procedures with Transcription *
(3 Credits--3 Hours)
Prerequisite: OST 1435 with a grade of "C" or higher. A study of legal office procedures with a focus on the preparation of legal documents and transcription. The course includes a review of the appropriate use of communication technology, law office structure and organization and professional relationships.

OST 2601
Machine Transcription *
(3 Credits--3 Hours)
Prerequisite: OST 1764 with a grade of "C" or higher. It is also desirable to have completed OST 1110 and ENC 1101. Students learn to operate transcription equipment and develop the skills necessary for successful transcription including listening, spelling, punctuation, proofreading, and formatting. Significant independent work is done by the student.

OST 2611
Medical Transcription I *
(3 Credits--3 Hours)
Prerequisite: OST 2601 and HSC 1531 with a grade of "C" or higher. Students use and refine the skills developed in OST 2601 to produce a variety of medical reports typical of an entry-level medical transcriptionist. Basic knowledge, understanding, and skills are developed through transcription of a variety of medical reports. Significant independent work is done by the student.

OST 2621
Medical Transcription II *
(3 Credits - 3 Hours)
Prerequisites: OST 2611 with a grade of "C" or higher. An advanced study of the medical transcription processes of hospi-

tals and ambulatory health care settings through a hands on approach. Emphasis is placed on developing the transcriptionist's "ear" with a resultant increase in speed and accuracy. Style guidelines of the AAMT are emphasized. Medical vocabulary is expanded with a special emphasis on disease processes, surgical procedures, and diagnostic and pharmacological treatments.

OST 2773
Advanced Word Processing
(3 Credits--3 Hours)
Prerequisite: OST 1100 and OST 1764 with a grade of "C" or higher. This course is designed to teach students how to produce complex documents using advanced word processing functions. Some activities include creating styles, outlines, templates, electronic forms, macros, indexes, and tables of contents.

OST 2826
PowerPoint Presentation *
(3 Credits--3 Hours)
Prerequisite: CGS 1100 with a grade of "C" or higher. This course is designed to teach the principles, concepts, and techniques involved in developing effective presentations with desktop presentation graphics (Microsoft PowerPoint). Emphasis will be placed on selecting and developing the appropriate presentation graphic media to deliver the message effectively to the audience using graphs, charts, paper, transparencies, slide shows or computer grahpics.

OST 2850
Microsoft Office Professional *
(3 Credits--3 Hours)
Prerequisite: OST 1764 and CGS 1100 with a grade of "C" or higher. This is a project-based course with a focus on advanced projects that integrate Microsoft Word, Excel, Access, PowerPoint and Outlook.

REE 1040 Course I:
Introduction to Real Estate Principles and Practices +
(4 Credits--4 Hours)
A study of the basic principles and practices of the real estate field. Contracts, deeds, legal descriptions, mortgage markets, the brokerage business, taxation, appraising, and financial transactions are discussed.

REE 2041 Course II:
Real Estate Principles and Practices +
(4 Credits--4 Hours)
A course designed to acquaint prospective brokers with advanced concepts and practices encountered and used in the real estate brokerage business.

SLS 1341
Employability Skills +
(1 Credit--1 Hour)
A course required for most business and technical programs that should be completed as early as possible upon enrollment. A course designed to assist students in developing job search skills and in recognizing the factors employers consider essential to the maintenance of good work habits.

TAX 2000
Federal Income Tax Preparation
(3 Credits--3 Hours)
Prerequisite: MTB 1103 or MAT 1033 with a grade of "C" or higher, or satisfactory scores on the math placement exam at the College Algebra level. A course designed to give the student an understanding and application of current federal tax laws pertaining to individual income taxation. Course content includes filing status, gross income inclusions and exclusions, adjusted gross income, itemized deductions, capital gains, and tax credits.

COMMUNICATIONS

AML 2010
American Literature I ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. AML 2010 is a study of selected American writers and literary trends from colonial times to the mid-19th century.

AML 2020
American Literature II ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. AML 2020 is a study of selected American writers and literary trends from mid-19th century to the present.

AML 2601
African-American Literature I ◆
(3 Credits--3 Hours)
Prerequisite: Prerequisite: Successful completion of Composition I and II. A survey of African-American Literature that reflects the rich tradition of published writings created by African-American authors. In the course, students discover a variety of African-American literary genres and themes from the earliest documented records to contemporary African-American Culture. This course emphasizes terminology and literary constructs necessary for the students to read and understand text materials and written dialogues of African-American writers. The development of appropriate skills and techniques enabling students to review and analyze written works, such as narrative, poetry, short story, and novel are stressed.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

CRW 2000
Creative Writing I ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. An intensive course in the writing of short fiction (with brief attention to the writing of poetry and drama) of publishable quality.

ENC 1101
Composition I ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory score on an entry level placement test or completion of ENC 0020 with a grade of "C" or higher. ENC 1101 is a course in paragraph and essay writing, incorporating some review of basic grammar. Students will learn to write essays that are unified, coherent, and grammatically correct. An exit grade of "C" or higher is required.

ENC 1102
Composition II ◆
(3 Credits--3 Hours)
Prerequisite: ENC 1101 with a grade of "C" or higher, and, if required, satisfactory completion of REA 0002, Reading and Study Skills. ENC 1102 is a continuation of ENC 1101. Detailed training in the methods and applications of expository writing and the process of logical thinking. Emphasis is placed on descriptive, persuasive, and argumentative writing. Students will write a documented research paper. An exit grade of "C" or higher is required.

ENC 2321
Composition III ◆
(3 Credits--3 Hours)
Prerequisite: ENC 1102 with a grade of "C" or higher. A study of literary techniques and conventions is undertaken as a foundation for writing about literature. Training is given in the planning, organization, and writing of critical papers. Stress is placed on effective style and methods of research. An exit grade of "C" or higher is required.

ENC 2210
Technical and Professional Report Writing ◆
(3 Credits--3 Hours)
A study and practice of the writing and designing of documents in technical and professional discourse communities. Students will produce documents representing a number of technical genres: correspondence. reports, a proposal, a real-world project, and a final portfolio. These assignments will be taken from real-world situations and will present students with a set of rhetorical considerations constraints. This course will approach technical writing rhetorically, discussing such topics as organizational conventions, visual design, and style in the context of specific rhetorical situations.

ENG 2100
Film as Narrative Art ◆
(3 Credits--3 Hours)
Prerequisite: ENC 1101 with a grade of "C" or higher. An introduction to film as it reflects and shapes 20th and 21st century cultures. Stress is placed upon critical analysis of film's narrative structure and how that structure draws from and expands upon literary narrative. The course will also present students with an overview of film history and acquaint them with basic film techniques.

ENL 2012
English Literature I ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. ENL 2012 is a study of English literature from Anglo-Saxon times through the 18th century. Representative selections from each period are studied.

ENL 2022
English Literature II ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. ENL 2022 is a study of English literature from the close of the 18th century to the present.

LIS 2004
Introduction to Internet Research ◆
(1 Credit--1 Hour)
A hands-on course for beginners which focuses on information resources available through the Internet. Students will learn how to design effective search strategies, retrieve, evaluate, and cite Internet sources.

LIT 2110
World Literature I ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. LIT 2110 is a study of selected masterpieces of oriental and European literature through the period of the Renaissance.

LIT 2120
World Literature II ◆
(3 Credits--3 Hours)
Prerequisite: ENC 2321 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. LIT 2120 is a study of masterpieces of European and American literature from neoclassic times to the present.

REA 1105
College Reading and Study Skills * ◆
(3 Credits--3 Hours)
A course designed to strengthen comprehension and vocabulary at the college level and to enhance academic success. Literal and critical thinking and comprehension skills are stressed, as well as vocabulary development, study skills, and reading rate.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

REA 1505
College Vocabulary Study ◆
(1 Credit--2 Hours)
A course designed to strengthen vocabulary, and thereby reading comprehension, at the college level and to enhance academic success. Latin and Greek word parts, context clues, advanced dictionary usage, and the study of content area terms and concepts are stressed.

SPA 1612
American Sign Language I ◆
(3 Credits--3 Hours)
This course is an introduction to the linguistic structure and conceptual vocabulary of American Sign Language as used by deaf adults. This course will emphasize the development of American sign Language skills including receptive and expressive conversational skills. The course will describe the history, values, and culture of deaf people in America.

SPA 1613
American Sign Language II ◆
(3 Credits--3 Hours)
This course is a continuation of American Sign Language I and will emphasize intermediate level sign vocabulary, increasingly complex grammatical constructions, idioms, inflectional usage, and the development of intermediate receptive and expressive conversational American Sign Language skills.

SPC 1600
Fundamentals of Speech ◆
(3 Credits--3 Hours)
A course designed to help students improve oral communication. Practice accompanied by student critiques and to self-evaluate assets and identify faults to be overcome. Attention given to effective posture, gesture, expression, and movement. Assignments are made to emphasize importance of organization, clarity, interest, and persuasion.

SPN 1015
Conversational Spanish ◆
(3 Credits--3 Hours)
An introductory level course in Spanish emphasizing those listening and speaking skills in Spanish necessary for travel, social, or business purposes. Students who need to complete the foreign language requirement prior to admission to the Florida state university system should enroll in SPN 1120 and SPN 1121.

SPN 1120
Foundations of Spanish I ◆
(4 Credits--4 Hours)
A course for those who have little or no knowledge of Spanish. The course includes the development of basic skills in listening, speaking, reading, and writing. Communicative competence is stressed.

SPN 1121
Foundations of Spanish II ◆
(4 Credits--4 Hours)
Prerequisite: SPN 1120 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. A continuation of SPN 1120.

COMPUTER EDUCATION

CDA 2500
Network/Data Communications * ◆
(3 Credits--3 Hours)
Prerequisite: CGS 1060 or CGS 1100 with a grade of "C" or higher. This course provides an introduction to data communications technology as it is applied to problems in the business world. The emphasis of this course is computer networking software. Subjects covered include: communication theory, the role of standards, terminal-host communication, Local Area Network (LAN) technologies, Wide Area Networks (WAN), Network Management, and applications such as e-mail and groupware, Intranets, and the Internet.

CET 1114C
Digital Circuit Fundamentals *
(4 Credits--5 Hours) This course provides an introduction to digital devices and concepts essential for further study in digital systems. Topics include number systems, logic gates, Boolean logic, combinational circuits, sequential circuits, registers, counters, and design techniques. Various digital circuits are designed and constructed in the lab.

CET 1173C
Microcomputer Troubleshooting I *
(4 Credits--4 Hours)
Prerequisite: CGS 1560 with a grade of "C" or higher. This class will provide the student with a thorough knowledge of the troubleshooting techniques necessary to diagnose hardware and software problems related to the IBM PC and compatibles. No previous electronic background is required. Lab work includes hands on disassembly, diagnosis and repair, and reassembly of IBM compatible computers.

CET 2123C
Microprocessor Fundamentals *
(4 Credits--4 Hours) Prerequisites: CET 1114C with a grade of "C" or higher and CGS 1100 or (instructor approval required) a working knowledge of the basic concepts of a windows based operating system and microcomputer applications programs. This course studies the organization and operation of a stored program in a microcontroller with emphasis on CPU operation in response to assembly and machine language instructions. Course work includes an introduction to memories and interfacing, internal CPU architecture, assembly language programming, and program simulation of simple student programs using the Intel 8051 microcontroller.

CET 2131C
Microprocessor Interfacing *
(4 Credits--4 Hours)
Prerequisite: CET 2123C with a grade of "C" or higher. This course continues the study of microprocessors and their interfacing with external devices using the Intel 8051 microcontroller. Topics include external memory access, serial data transmission/reception fundamentals, interfacing to A/D and D/A converters, multiple interrupts, and digital communication configurations. Laboratory work involves writing the necessary assembly code and interfacing the 8051 with real hardware including keyboards, displays, and other 8051 controlled devices.

CET 2174C
Microcomputer Troubleshooting II *
(4 Credits--4 Hours)
Prerequisite: CGS 1560 with a grade of "C" or higher. This class will provide the student with a through knowledge of advanced troubleshooting techniques necessary to diagnose hardware and software problems related to the IBM PC and compatibles, diagnose simple network problems including but not limited to Windows NT. No previous electronics background or knowledge is required.

CET 2179C
A+ Concepts and Practices
(4 Credits--4 Hours)
Prerequisite: CET 1173C or CET 2174C. This course is a continuation of CET 1173C and CET 2174C and provides the student with the knowledge and skills needed to pass the A+ Certification examination required to become a certified computer service technician. Course work includes an introduction to installation, configuration and upgrading of computers. Diagnosing and troubleshooting common module problems and systems are covered. Other topics include safety, preventive maintenance, customer service, motherboard/processors/memory, printers, portable systems, basic networking and DOS/Windows module examinations. The assignments will be drawn from the problems at the end of each chapter or given by the instructor.

CGS 1060
Introduction to Computer Concepts * ◆
(3 Credits--3 Hours)
A basic computer literacy course including the history of computing, an introduction to the Internet and the World Wide Web, computer and data communications terminology, a survey of computer-related careers, and an overview of data processing, information systems technologies, and applications programming.

CGS 1100
Microcomputer Applications Software * ◆
(3 Credits--3 Hours)
An introductory, "hands-on" course providing students with the basic terminology and concepts to use a microcomputer (PC). Students will master the basic concepts of a Windows based operating system and microcomputer applications programs. Applications include word processing, spreadsheets, and database management programs using Microsoft Office Software.

CGS 1515
Advanced Spreadsheet Concepts * ◆
(3 Credits--3 Hours)
Prerequisite: CGS 1100 with a grade of "C" or higher. An in-depth study of functions common to spreadsheet applications in the business environment. Topics include interactive spreadsheet design, financial functions, graphs, macros, menus, data import/export, and databases.

CGS 1560
Microcomputer Operating Systems *
(3 Credits--3 Hours)
Prerequisite: CGS 1060 with a grade of "C" or higher. A course designed for the advanced microcomputer user. This course includes a study of functions common to microcomputer operating systems and their application to common problems in the business environment. Topics include data storage organization, data security, virus protection, task automation, and hardware management.

CGS 2104
Computer Accounting Applications *
(3 Credits--3 Hours)
Prerequisite: ACG 2021 or ACG 2071 with a grade of "C" or higher. This course is designed to give students experience using a computerized accounting system to enhance knowledge gained in earlier accounting courses and prepare them for the job market. Students will gain practical knowledge in generating invoices, cash disbursements, cash receipts, inventory control, accounts payable journals, customer ledgers, vendor ledgers, and other areas common to today's accounting needs.

CGS 2554
Introduction to Electronic Commerce *
(3 Credits--3 Hours)
Prerequisites: CGS 2555 with a grade of "C" or higher. An introduction to electronic commerce technologies using the Internet. This course will address business through electronic commerce, business opportunities, and electronic commerce funds transfer. It will include social, ethical, and political issues associated with electronic commerce. Students will create a simple e-commerce web site.

CGS 2555
Introduction to the Internet *
(3 Credits--3 Hours)
Prerequisites: CGS 1060 with a grade of "C" or higher. This is an introductory "hands-on" course providing students with the terminology and concepts to do research on the Internet. This course provides an overview of the Internet and its most important services. In addition to creating a personal web page, other services on the Internet covered include Gopher, FTP, Telnet, E-Mail, and Usenet. A unit on Windows Operating Systems and Internet browsers and Netscape Communicator is included.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

CGS 2820
Web Page Design and Publishing *
(3 Credits--3 Hours)
Prerequisites: CGS 2555 with a grade of "C" or higher. This is a first course in Web site and Web page development. Design and management principles are presented along with popular development tools. The class includes an introduction to the markup languages (such as HTML and XML) that drive all Web pages. Student will design a web site architecture and implement web pages using the techniques, languages, and tools presented in the class.

CGS 2871
Multimedia *
(3 Credits--3 Hours)
Prerequisites: CGS 1060 with a grade of "C" or higher. Comprehensive "hands-on" introduction to multimedia. Learn the practical application of multimedia. Helps to make sense of the vast dynamic field of multimedia. Using authoring tool from Macromedia, students will develop an interactive presentation.

COP 1000
Introduction to Computer Programming * ◆
(3 Credits--3 Hours)
Prerequisite: CGS 1100. An introduction to the fundamentals of computer programming. Topics include using text editors, compilers, algorithm design, structured design and programming, debugging, and testing. The Visual Basic programming language is used to demonstrate structured programming techniques.

COP 1120
COBOL Programming I * ◆
(3 Credits--3 Hours)
Prerequisite: COP1000 with a grade of "C" or higher. A course designed to provide an introduction to structured COBOL programming. Topics include basic sequential file handling, output formatting, array and other data structures, and common business algorithms.

COP 1220
Introduction to C++ * ◆
(3 Credits--3 Hours)
Prerequisite: COP 1000 with a grade of "C" or higher. This course provides an introduction to computer program design and development using the C++ language. Topics include data types, control structures, functions, the standard C libraries, arrays and structures. Structured design techniques are emphasized for program creation.

COP 2121
COBOL Programming II * ◆
(3 Credits--3 Hours)
Prerequisite: COP 1120 with a grade of "C" or higher. A course designed to teach advanced programming techniques using structured COBOL programming. Topics include data validation, searches, sorts, merges, sequential and random file design/maintenance, and interactive programming techniques.

COP 2224
Advanced C++ Programming * ◆
(3 Credits--3 Hours)
Prerequisite: COP 1220 with a grade of "C" or higher. A course designed to introduce object-oriented programming using C++ programming techniques, stream input/output, dynamic memory allocation, classes and data abstraction, operator overloading, inheritance, and polymorphism.

COP 2332
Visual Basic Programming * ◆
(3 Credits--3 Hours)
Prerequisite: COP 1000 with a grade of "C" or higher. Students continue the study of Visual Basic language begun in COP 1000. More advanced topics such as object-oriented programming, file handling, database access, multi-form applications, and complex GUI controls are presented. Students will develop applications of medium complexity while using best design practices and techniques. Issues of GUI programming/HCI (Human Computer Interaction) will also be covered.

COP 2800
Programming in Java * ◆
(3 Credits--3 Hours)
Prerequisite: COP 1000 with a grade of "C" or higher. This course is an introduction to programming in the Java language. Coverage includes basic Java programming techniqes. API packages, methods, classes and data abstraction, graphical user interface components, exception handling, multi-threading, and files and streams.

COP 2802
Programming in JavaScript * ◆
(3 Credits--3 Hours)
Prerequisites: COP 1000 and COP 2822. This course teaches students JavaScript - a language which extends HTML to produce dynamic web pages. Students will learn JavaScript syntax and common applications such as form validation, popup menus, rollover effects and CGI interfaces. Dynamic web page creation will also be covered.

COP 2822
Web Page Authoring * ◆
(3 Credits--3 Hours)
Prerequisite: CGS 1100 with a grade of "C" or higher. This course covers the use of browser software to search, navigate, and view World-Wide-Web (WWW) pages. Also, basic Hypertext Markup Language (HTML) tags used in the creation of WWW pages will be described.

COP 2830
Web Programming Languages * ◆
(3 Credits--3 Hours)
Prerequisites: COP 1000 and COP 2822 or COP 2802. This is a survey course of the major languages used to build websites including HTML, CSS (Cascading Style Sheets), JavaScript, Perl,

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

XML, as well as Applet and Servlet Technologies. Students will learn the basic history and syntax of each language as well as fundamentals in basic programming techniques and applications for each language. This course is designed for programming majors and web developers.

CTS 1400
Advanced Database Concepts *
(3 Credits--3 Hours)
Prerequisite: CGS 1100 with a grade of "C" or higher. An in-depth study of functions common to database applications in the business environment. Topics include database design, data maintenance, report generation, advanced reporting, mailing label generation, multiple databases, and elementary programming.

EET 1003C
Introduction To Electronics Technology * ◆
(4 Credits--4 Hours)
Prerequisite: MAT 1033. This course provides a broad introduction to the field of electronics. Elementary concepts in DC and AC circuits are covered. Fundamentals of solid state components are investigated. Basic diode, transistor, and amplification principles are examined. Digital fundamentals are considered. Lab work involves the proper use of a digital multimeter with simple circuit construction and analysis.

EET 1015C
DC Circuit Analysis *
(4 Credits--5 Hours)
Prerequisite: MAC 1105 and EET 1003C or the instructor's approval in lieu of EET 1003C if the student can show prior exposure to circuit theory fundamentals. Introduction to the physics of electricity along with units, definitions, and symbols for electrical quantities. Study and analysis of basic DC series, parallel, and series-parallel resistive circuits, circuit theorems, principles of magnetism, capacitance, and inductance. Lab work includes familiarization with measuring instruments and construction of simple circuits to demonstrate and confirm DC concepts learned.

EET 1141C
Electronic Circuits I * ◆
(4 Credits--5 Hours)
Prerequisite: EET 1015C. Fundamental semiconductor concepts and applications are covered. Diodes, transistors, biasing, amplification principles, and small-signal analysis techniques are investigated. Lab work involves construction and analysis of numerous circuits that display and confirm the electronic circuit concepts learned.

EET 2355C
Electronic Telecommunications *
(4 Credits--4 Hours)
Prerequisite: EET 1015C with a grade of "C" or higher. Corequisite: CET 1114C. This course provides a practical understanding of how telecommunications and networking work in the modern environment. Topics include units and terminology, descriptions and effects of metallic, optical, and atmospheric media, an introduction to amplitude and angle modulation, pulse modulation fundamentals, time and frequency division fundamentals, channel codes, source encoding, digital modulation, and multiplexing codes. The open-system interconnection model and topics in networking hardware and the architecture of the modern telephone system are discussed. Laboratory work includes a group of experiments that complement and emphasize critical concepts that are presented during class lectures.

EDUCATION

The following three (3) courses are designed for students who plan to transfer to a State University System College of Education to pursue a bachelor's degree in education. EDF 2005 students must be cleared by a school board background check before participating in the required fieldwork. Since the background check can take up to six weeks to complete, College counselors will provide the necessary forms and information to students at the time courses are approved for the next term. EDF students must return a fully completed form to the College counselors at that time. Background check fees, if any, will be announced in the term course offering schedule. Students must comply with background check procedures in a timely manner to secure field observation placement.

EDF 2005
Introduction to Education and Fieldwork ◆
(3 Credits--3 Hours)
Prerequisite: Completion of ENC 1101 with a grade of "C" or better. Completion of 9 or more college credit semester hours with a minimum grade point average of 2.5. Major areas include the historical, sociological, legal, and philosophical foundations of present day education. Field exposure in school settings from K to 12th grade provides prospective education majors with the understanding of the expectations and responsibilities of public school teachers. The course requires 15 hours of field experience/observation in a classroom setting approved in advance by the instructor.

EDG 2701
Teaching Diverse Populations and Fieldwork ◆
(3 Credits--3 Hours)
Prerequisite: Completion of EDF 2005 with a grade of "C" or better. A course designed to study multi-cultural education. Emphasis is on the dimensions of diversity, including culture, ethnicity, race, language, social class, exceptionality, gender, age, and sexual orientation. Relationships between dimensions of diversity and educational policy, curriculum, and methodology will be explored. Twenty hours of field experience/volunteer practicum in community agencies and 10 hours of observation/participation at varied cultural events and classroom experiences approved in advance by the instructor. Students must comply in a timely manner with screening procedures to secure a practicum placement.

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EME 2040
Introduction to Educational Technology ◆
(3 Credits--3 Credits)
Prerequisite: Completion of CGS 1100 with a grade of "C" or better. An introduction to the classroom applications of educational technologies. Topics include multimedia, interactive media, ethics and legal issues, and the Internet. Students will work in class on computers and should either have a computer available outside of the classroom or plan to use computers available in the computer laboratories to complete assignments.

EDF 1004
Education Field Experience
(3 Credits--3 Hours)
This course allows students to work in an educational setting. The student is able to integrate classroom and field experiences with children. The student works in an approved site supervised by qualified personnel and the course instructor.

EDF 2070
Social Foundations of Education
(3 Credits--3 Hours)
NOTE: This course is designed for teachers with temporary/provisional certification who require social foundations of education course work for professional certification. For some teachers with professional certification, it may also be an appropriate course for recertification. Prerequisite: Completion of ENC 1101 with a grade of "C" or higher. A survey of social values, issues, and institutions in relation to American education. Major areas include the historical, sociological, legal, ethical, and philosophical foundations of present day education.

EDG 1700
Introduction to Multicultural Education
(3 Credits--3 Hours)
Prerequisite: Completion of ENC 1101 with a grade of "C" or higher. An introduction to the issues, challenges, and opportunities reflected in the diversity of the American population in and out of school. Emphasis is on dimensions of diversity such as culture, ethnicity, race, religion, language, social class, exceptionality, gender, age, sexual orientation, and multicultural education. The course will provide a foundation for understanding the historical background of the current multicultural movement and for developing the understanding and skills needed in a multicultural classroom and society. This course requires 10 hours of attendance/observation/participation at varied cultural events in and out of the classroom.

EDP 2002 Educational Psychology ◆
(3 Credits--3 Hours)
An introduction to the psychological principles of learning and the application of these principles in effective teaching. Course content includes the psychology of teaching and learning, learner behavior, growth and maturation, psychological concepts of learning, and cognitive and affective factors in learning.

EEC 1001
Introduction to Early Childhood Education
(3 Credits--3 Hours)
This course introduces basic principles and practices involved in guiding the young child. The course includes the history and objectives of early childhood programs, child care issues, center licensing standards, and classroom management.

EEC 1601
Practicum for Observing and Recording Behavior: Early Childhood
(3 Credits--3 Hours)
An introductory practicum for those interested in working as child care paraprofessionals or teaching assistants with young children. The purpose of this course is to provide students with the knowledge and techniques for observing and recording the behavior of young children. An emphasis is placed upon understanding the importance of observation in early childhood education and its relationship to effective planning for individual children and groups.

EEC 1907 School Age Practicum
(3 Credits--3 Hours)
Prerequisite or co-requisite: SLS 1341 Employability Skills. This course is designed to provide students with an understanding of child development and education. Students will acquire practical and theoretical experience of the knowledge and skills necessary for helping children to develop and learn to their fullest potential. Developmentally appropriate programs for school age children will be a focus of this course. The supervised field placement will be in selected settings and schools.

EEC 2401
Home and Community
(3 Credits--3 Hours)
This course is designed to help the student understand the roles and interrelationships of early childhood programs, families, and the community as components of a team working together to support the development of the young child.

EEC 2500
Child Care Center Management
(3 Credits--3 Hours)
This course is intended to meet the educational requirement for the Foundation Level Child Care and Education Administrator credential as defined by the State of Florida. Four content areas will be covered in this course: organizational leadership, personnel issues, financial and legal issues, and child care and education programming.

EEX 1600
Classroom Management
(3 Credits--3 Credits)
An introductory course for the development of effective classroom management skills for child care paraprofessionals and teaching assistants. The purpose of this course is to acquaint students with the factors that influence learning and behavior

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and with strategies for changing behavior. The focus of course content will include psychological theories, learning models, observation and recording of behavior, and the roles of teacher, paraprofessional, and child in the learning process

HEALTH & PHYSICAL EDUCATION

PHYSICAL EDUCATION COURSES will apply toward the A.A. degree requirements IF applicable for Physical Education majors.

PEL 1211 Softball I
(1 Credit--2 Hours)
Specialized instruction with emphasis given to fundamental skills.

PEL 1216 Baseball I
(1 Credit--2 Hours)
Specialized instruction with emphasis given to fundamental skills.

PEL 1321 Volleyball I
(1 Credit--2 Hours)
Specialized instruction with emphasis given to fundamental skills.

PEL 1341 Beginning Tennis
(1 Credit--3 Hours)
Specialized instruction with emphasis given to fundamental skills.

PEL 1621 Basketball I
(1 Credit--2 Hours)
Specialized instruction with emphasis given to fundamental skills.

PEL 2212 Softball II
(1 Credit--2 Hours)
Specialized instruction with emphasis on technique and strategy used in play.

PEL 2217 Baseball II
(1 Credit--2 Hours)
Specialized instruction with emphasis on technique and strategy used in play.

PEL 2322 Volleyball II
(1 Credit--2 Hours)
Specialized instruction with emphasis on technique and strategy used in play.

PEL 2622 Basketball II (1 Credit--2 Hours)
Specialized instruction with emphasis on technique and strategy used in play.

PEM 1102
Health Analysis and Body Conditioning
(3 Credits--3 Hours)
A course designed to analyze and evaluate certain health factors on a personalized basis to provide a personal health profile. The profile will be used to develop and carry out an aerobic and isotonic conditioning program of activities leading to maximized health benefits.

PEM 1104
Concepts of Life Fitness
(1 Credit--3 Hours)
A continuation of the program established in PEM 1102 with emphasis on changing lifestyle patterns consistent with fitness, health, and well-being. May be repeated three times for credit.

PEM 2131
Nautilus Training
(1 Credit--3 Hours)
A course designed to provide basic instruction in the methods of isotonic exercise as related to fitness and health. May be repeated three times for credit.

HEALTH INFORMATION MANAGEMENT

HIM 1000
Introduction to Health Information Management
(3 Credits—3 Hours)
Prerequisite: HSC 1000
This course provides an introduction to the field of health information management, including: a history of the profession, professional organizations, accreditation standards, and the functions, content and structure of the health care record.

HIM 1110
Standard Healthcare Practices
(3 Credits—3 Hours)
Prerequisite: HIM 1000. This course provides and introduction to the study of healthcare statistics and performance improvement, with an emphasis on manual and electronic computations such as mortality and autopsy rates, inpatient census, bed counts, and total length of stay. Students will also identify, describe, apply and evaluate performance improvement principles, tools and techniques.

HIM 1211C
Health Information Systems
(3 Credits—3 Hours)
Prerequisite: CGS 1100. This course provides an introduction to the study of the automation, computerization, and implementation of information systems in the healthcare industry with a focus on the evolution and goals of the Computerized Patient Record. Computer laboratory work with health industry software packages included.

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HIM 1260C
Health Care Billing and Reimbursement *
(3 Credits—3 Hours)
Pre- or Co-requisites: HSC 1000 and CGS 1100.
This course provides an introduction to the study of the billing and reimbursement processes of hospitals and ambulatory health care settings including: scheduling, registration, insurance verification, fee schedules, encounter forms, charge capturing, billing process, reimbursement process, patient payment and collections. Computer laboratory work with billing software is included.

HIM 1280C
Basic ICD-9-CM Coding*
(3 Credits—3 Hours)
Pre- or Co-requisites: BSC 2085 and BSC 2085L.
This course is an introduction to the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) Coding System, with an emphasis on ICD-9-CM conventions, coding steps and guidelines, V and E codes, symptoms, signs, and ill-defined conditions and use of the medical record as a source for coding. The Uniform Hospital Discharge Data Set (UHDDS) and guidelines for coding neoplasms, injuries, burns, poisonings, adverse effects of drugs, and complications of surgery and medical care are also included.

HIM 2012
Health Care Law
(3 Credits—3 Hours)
Pre- or Co-requisite: HSC 1000. This course provides an introduction to the study of law as applied to the health field including: legal terminology, the judicial system, misconduct, malpractice, and legal and professional standards. The importance of proper documentation and informed consent will be emphasized. This course will also cover the fundamentals of medical ethics and ethical behavior as it relates to clinical practice.

HIM 2200
Supervision, Organization, and Management
(3 Credits—3 Hours)
Prerequisites: HIM 1110. This course is designed as a study of departmental management including principles of management, operational management, human resource management, and financial management. Emphasis will be on supervision and organization, quality assessment, utilization management, risk management, and clinical quality management.

HIM 2234C
Advanced ICD-9-CM Coding*
(3 Credits—3 Hours)
Prerequisites: HIM 1280C. This course serves as a continuation of Basic ICD-9-CM Coding with application of guidelines in more advanced case scenarios. The content includes simulation of inpatient and outpatient coding of diseases, procedures and services of all body systems using patient records and encoder software. Emphasis is placed on the use of official coding guidelines, compliance, and DRG calculations.

HIM 2253C
CPT Coding*
(3 Credits—3 Hours)
Pre-or Co-requisites: BSC 2085 and BSC 2085L
This course provides an introduction to the study of Current Procedure Terminology (CPT) Coding. Simulation of outpatient coding, including ambulatory surgery, diagnostic testing and procedures, physician services using patient records, and encoder software are essential parts of this course. Emphasis is placed on the use of official CPT coding guidelines, compliance and Ambulatory Payment Classification (APC) calculations.

HIM 2430
Concepts of Disease
(3 Credits—3 Hours)
Prerequisite: HSC 1531. Co-requisite: BSC 2086 with Lab. This course provides an introduction to the study of disease processes with concurrent study of diagnostic and laboratory testing, pharmacological treatment, and surgical treatment of disease.

HIM 2800
Professional Practice Experience I
(2 Credits—6 Hours)
Prerequisites: HIM 1000 and HIM 2012. This course provides a supervised practicum in the Health Information Management Department of a hospital or alternative health care setting performing assembly and analysis, incomplete record control, perm file maintenance, ROI, MPI cleanup, and vital statistics.

HIM 2810
Professional Practice Experience II
(2 Credits—6 Hours)
Prerequisites: HIM 2800 (not applicable for Medical Coder/Biller students)
Co-requisites: HIM 2234C or HIM 2253C. This course provides a supervised practicum in a health care facility performing outpatient/inpatient coding, and/or varied billing and reimbursement functions.

HIM 2820
Professional Practice Experience III
(2 Credits—6 Hours)
Prerequisite: HIM 2810. This course provides a supervised practicum in a hospital or alternative health care setting serving in a supervisory capacity under the direction of a Health Information Management Professional. Departmental operations, and interaction with Risk Management, Quality Improvement, and Utilization Review departments are included. Also included within this course will be an 8 hour HIM review class to help prepare students for the national credentialing examination.

HSC 1000
Introduction to Health Care Delivery System ◆
(2 Credits—2 Hours)
Prerequisites: None. This course provides an introduction to the evolution and organization of the healthcare delivery system of

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the U.S., including communication and interpersonal skills, legal and ethical guidelines, basic concepts of medical terminology and infection control, and the personal characteristics of the successful health care professional.

HSC 1531
Medical Terminology ◆
(3 Credits—3 Hours)
Prerequisites: None. This course provides an introduction to the terminology of medicine, making it understandable through the study of the word roots, combining forms, prefixes, suffixes, and etymology. The student will learn to build, recognize, spell, and pronounce medical terms.

HUMANITIES

ARE 2010
Art Skills for Elementary Teachers ◆
(3 Credits--3 Hours)
A course designed to promote and strengthen the teacher's knowledge and use of art methods and materials and their applicability to classroom use. Instruction in the use of various media will be included.

ARH 2050
Art History I ◆
(3 Credits--3 Hours)
A study of the main developments of the visual art forms (architecture, sculpture and painting) from Paleolithic man through the Renaissance.

ARH 2051
Art History II ◆
(3 Credits--3 Hours)
An integrated study of the main developments of the visual art forms (architecture, sculpture and painting) from the 17th century to the present.

HUM 2211
The Humanities I ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory completion of ENC 1101 with a grade of "C" or higher. The course focuses on the Ancient through the Medieval periods of man's culture and history. It is designed to acquaint the student with literature, philosophy, art, and music in the Prehistoric, Classical, and Medieval periods. Major emphasis is upon understanding and appreciation of man's cultural heritage.

HUM 2230
The Humanities II ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory completion of ENC 1101 with a grade of "C" or higher. In addition, successful completion of HUM 2211 is strongly recommended. The course focuses on the Renaissance to the Modern periods of man's culture and history. As a continuation of Humanities I, it is designed to acquaint the student with literature, philosophy, art, and music in the Renaissance, Baroque, Neoclassical, Romantic, Impressionistic, and Modern periods. Major emphasis is placed upon mature understanding and enlarged appreciation of man's cultural heritage.

HUM 2310
Mythology in Art, Literature, and Music ◆
(3 Credits--3 Hours)
Prerequisite: ENC 1102. An introduction to mythology and an examination of its continued influence to the present. Major emphasis is placed on Classical mythology, though attention will be given to other mythologies of Western and non-Western cultures as well.

HUM 2512
Architectural Reflection of Culture ◆
(3 Credits--3 Hours)
A chronological look at architecture as a reflection of major cultural concerns in the western world from prehistoric times to the twentieth century. Each major period in history will be thematically approached and studied with visual aids and discussions. The course focuses on the psychological and sociological impact of the ethos upon man's architectural monuments as an extension of his personal needs and basic instinct for physical survival and mental well-being.

MUH 2112
Music History ◆
(3 Credits--3 Hours)
A study of musical expression in relation to the background of the life and art which created it. Emphasis is placed on music in Western Civilization from the 17th century to the present.

PHI 2010
Introduction to Philosophy ◆
(3 Credits--3 Hours)
An examination of philosophical problems which probe the complexity of human knowledge. Traditional epistemological, metaphysical, aesthetic, moral, and political problems will be discussed in relation to the writings of classical and contemporary philosophers.

PHI 2100
Reasoning and Critical Thinking ◆
(3 Credits--3 Hours)
An introduction to the theory and application of logic in both its deductive and inductive aspects. Topics include traditional logic of the syllogism, modern deductive techniques, logical fallacies, analogy and generalization, causal hypotheses, explanatory hypotheses and probability.

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PHI 2630
Contemporary Ethics ◆
(3 Credits--3 Hours)
An examination of ethical topics with an emphasis on the development of a personally and philosophically meaningful ethical position on a variety of contemporary problems. Topics such as utilitarianism, egoism, situation ethics, freedom, social responsibility and relativism will be discussed and applied.

PHI 2905
Special Problems in Philosophy ◆
(3 Credits--3 Hours)
Prerequisite: Permission of the Dean of Arts and Sciences. prior to the new term. Directed studies in the areas of philosophy and logic. Application to do work in a special problems course must be made to the instructor who is to direct the study. A design of the study will be presented to the instructor and must be approved by the Dean of Arts and Sciences.

PHI 2930
Philosophical Issues in Film ◆
(3 Credits--3 Hours)
A philosophical look at film as an art form, with an emphasis on the fundamental issues raised by the director and/or perceived by the viewer. The student will analyze themes such as free will, moral responsibility, subjectivity, reality vs. illusion, and existence vs. essence. Readings in classical philosophical inquiry will combine with the work of selected cinematographers to allow the student to pursue these questions within the context of traditional and contemporary cinema.

MATHEMATICS

MAT 1033
Intermediate Algebra ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory score on placement tests, or completion of MAT 0024 with a grade of "C" or higher. Topics include factoring, rational expressions, radicals, quadratic equations, complex numbers, lines, parabolas, circles, and systems of linear equations.

MAT 2905
Special Problems in Mathematics ◆
(1-3 Credits)
Directed studies in the area of mathematics. Application to do work in special problems must be made to the instructor who is to direct the study. A design of the study will be presented to the instructor and must be approved by the Dean of Arts and Sciences.

A graphing calculator is required for the following courses. Students should consult with the instructor before making a purchase.

MAC 1105
College Algebra ◆
(3 Credits--3 Hours)
Graphing calculator required.
Consult with instructor before purchasing.
Prerequisite: Satisfactory score on placement tests, or completion of MAT 1033 with a grade of "C" or higher. This course is devoted to the function concept. Topics include equation and inequality solving, graphs and their transformations, function notation and evaluation, domain and range, operations with functions, and systems of linear equations and inequalities. Types of functions include linear, quadratic, absolute value, polynomial, rational, exponential, and logarithmic. Applications include curve fitting, modeling, optimization, and exponential growth and decay.

MAC 1147
Precalculus ◆
(4 Credits--4 Hours)
Graphing calculator required.
Consult with instructor before purchasing.
Prerequisite: Satisfactory score on placement tests, or completion of MAC 1105 with a grade of "C" or higher, or permission of the Dean of Arts and Sciences. This course is designed to prepare students for calculus. Topics include roots of polynomial equations, polynomial and rational inequalities, systems of linear and nonlinear equations, matrices, determinants, trigonometric functions of angles and real numbers, trigonometric graphs and their transformations, trigonometric equations, trigonometric identities, inverse trigonometric functions, law of sines, law of cosines, conic sections, sequences, series, and the binomial theorem.

MAC 2233
Survey of Calculus ◆
(3 Credits--3 Hours)
Graphing calculator required. Consult with instruct.
Prerequisite: A satisfactory score on placement tests, or completion of MAC 1105 with a grade of "C". This is a survey course of elementary differential and integral calculus designed for business and social science students. Topics include functions, limits, derivatives of algebraic, exponential and logarithmic functions, and integrals; with applications to curve sketching, optimization, marginal analysis, and area between two curves. This course cannot be used to satisfy degree requirements for students entering mathematics or engineering programs.

MAC 2311
Analytic Geometry and Calculus I ◆
(4 Credits--4 Hours)
Graphing calculator required. Consult with instructor.
Prerequisite: A satisfactory score on placement tests or completion of MAC 1147 with a grade of "C" or higher. A first course in analytic geometry and calculus. Topics include limits and continuity, the derivative with applications to tangent lines, rectilinear motion, related rates, mean value theorem, curve sketching, and optimization; antiderivatives, area, and the definite integral; and derivatives and integrals involving logarithmic and exponential functions.

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MAC 2312
Analytic Geometry and Calculus II ◆
(4 Credits--4 Hours)
Graphing calculator required.
Consult with instructor before purchasing.
Prerequisite: Completion of MAC 2311 with a grade of "C" or higher. A second course in analytic geometry and calculus. Topics include derivatives and integrals involving logarithmic, exponential, and inverse trigonometric, and hyperbolic functions; applications of the definite integral to area, volume, arc length, and surface area; techniques of integration, indeterminate forms, and improper integrals; infinite series; and conic sections, parametric equations, and polar equations.

MAC 2313
Analytic Geometry and Calculus III ◆
(4 Credits--4 Hours)
Graphing calculator required.
Consult with instructor before purchasing.
Prerequisite: Completion of MAC 2312 with a grade of "C" or higher. A third course in analytic geometry and calculus. Topics include vectors and solid analytic geometry, vector-valued functions, partial differentiation, multiple integrals, and vector integral calculus.

MAP 2302
Elementary Differential Equations ◆
(3 Credits--3 Hours)
Graphing calculator required. Consult with instructor before purchasing.
Prerequisite: Completion of MAC 2312 with a grade of "C" or higher. A course in ordinary differential equations. Topics include first order differential equations, second and higher order linear differential equations, Laplace transformations, series solutions, systems of first order differential equations, graphical solutions, and numerical solutions. Applications include growth and decay, mixtures, springs, and circuits.

MGF 1106
Mathematics for Liberal Arts I ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory score on placement tests, or completion of MAT 1033 with a grade of "C" or higher. A general education mathematics course. Topics include sets, logic, geometry, counting and probability, and statistics.

MGF 1107
Mathematics for Liberal Arts II ◆
(3 Credits--3 Hours)
Prerequisite: Satisfactory score on placement tests, or completion of MAT 1033 with a grade of "C" or higher. A general education mathematics course. Topics will be selected from numeration systems, number theory and real numbers, equations and functions, systems of linear equations, consumer mathematics, graph theory, and voting and apportionment.

MTB 1304
Using the Graphing Calculator ◆
(1 Credit--1 Hour)
Graphing calculator required. Consult with instructor before purchasing.
Corequisite: MAC 1105 or Prerequisite: MAC 1105 with a grade of "C" or higher. This course provides instruction for using a Texas Instruments graphing calculator. Topics include arithmetic operations, graphs, programming, matrices, and statistics.

STA 2023
Elementary Statistics ◆
(3 Credits--3 Hours)
Graphing calculator required. Consult with instructor before purchasing. Prerequisite: Completion of MAT 1033 with a grade of "C" or higher or permission of the Dean of Arts and Sciences. This course is an introduction to the fundamental concepts and methods of statistics and probability. Topics include: graphs and numerical measures; probability; binomial, normal and sampling distributions; confidence intervals and hypothesis testing; correlation and regression; and nonparametric methods.

NURSING

All "NUR" prefix courses may be used to fulfill A.A. Degree requirements IF those students are in the A.A. to B.S.N. program.

NUR 1020C
Foundations of Nursing Practice *
(8 Credits--15 Hours)
Prerequisites: Admission to Nursing Program and BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, HUN 1201, PSY 2012, ENC 1101. Prerequisite or corequisite: MCB 2013 and MCB 2013L. An introduction to the practice of professional nursing. Topics include nursing concepts, history, roles, basic interventions, and evidence-based practice. Differentiating practice responsibilities and liabilities for the professional, practical/vocational nurse, and nursing assistant is included in this course. Concepts and skills related to health assessment and physical examination for individuals of all ages are introduced in lecture and lab/clinical settings. Students learn clinical problem-identification and resolution by way of the nursing process. In addition, basic principles and skills of medication administration are integrated. Overall emphasis in this course is placed on the ways patients adapt to illness/injury and the role of the nurse in enhancing adaptation.

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NUR 1142
Clinical Pharmacology
(2 Credits--2 Hours)
Prerequisite: Admission to Nursing or Allied Health Programs. This course introduces the student to basic pharmacological concepts. Utilizing a lifespan approach, students learn pharmacodynamics, pharmacokinetics, drug classifications and prototypical drugs, drug dosages, drug interactions, legal/ethical considerations, and related nursing interventions.

NUR 1221C
Nursing Care of Adults I *
(8 Credits--15 Hours)
Prerequisite: Admission to Nursing Program. NUR 1020C. This course focuses on adaptation levels of adults to commonly (typical diseases of adult years) occurring health needs. The roles of the nurse as a provider of care, communicator, teacher, manager, member of a profession, and member of an interdisciplinary team are emphasized and provide the framework for clinical application and evaluation. Emphasis is placed on adaptation to pathophysical events in the following body systems: immune, reproductive, gastrointestinal, musculoskeletal, sensation, and renal/urinary. In addition, fundamental mental health concepts are included. Applications to elder adults are integrated throughout this course. Clinical experiences occur in hospital and community settings.

NUR 1461C
Parent-Child Nursing I *
(4 Credits--6 Hours)
Prerequisite: Admission to Nursing Program. NUR 1020C; Prerequisite or corequisite: DEP 2004. This course concentrates on normal and pathologic events associated with families of childbearing years. Emphasis is placed on adaptation to these events. Nursing roles and interventions in assisting parents, neonates, and children are integrated in both lecture and clinical learning experiences.

NUR 1520C
Mental Health Nursing
(4 Credits--6 Hours)
Prerequisite: Admission to Nursing Program. NUR 1221C. Prerequisite or corequisite: Humanities general education course. This course explores normal and psychopathological mental/emotional processes. Emphasis is placed on the way patients adapt to internal and external stimuli through counseling modalities, group dynamics, and psychopharmacologic agents. The roles of the nurse in promoting mental health adaptation are analyzed. Clinical learning experiences will occur in hospital and community settings.

NUR 2222C
Nursing Care of Adults II *
(4 Credits--10 Hours)
Prerequisite: Admission to Nursing Program. NUR 1221C; Prerequisite or corequisite: SYG 1000. This course focuses on more complex diseases of adult years and the patient's adaptation level. The roles of the nurse as a provider of care, communicator, teacher, manager, member of a profession, and member of an interdisciplinary team are explored as a means of enhancing the patient's ability to adapt. In addition, the course provides opportunities for developing competence in advanced skills and the application of these skills for patient care. Knowledge and nursing skills acquired in Adult Nursing I are built upon, thus giving the student access to more complex illness crisis in the adult patient. Advanced skills will be practiced in the laboratory prior to clinical experiences. Emphasis is placed on adaptation to pathophysical events in the following body systems: hematologic, nervous systems, integumentary, cardiovascular, endocrine, and respiratory.

NUR 2464C
Parent-Child Nursing II *
(4 Credits--6 Hours)
Prerequisite: Admission to Nursing Program. NUR 1461C. This course builds upon knowledge and skills gained in Parent-Child Nursing I. Learning is focused on advanced-beginner knowledge and skills in the nursing care of families who undergo normal and pathologic events. Emphasis is placed on adaptation to these events. Nursing roles and interventions in assisting parents, neonates, and children are integrated in both lecture and clinical experiences.

NUR 2753C
Rehabilitation Nursing *
(4 Credits--6 Hours)
Prerequisite: Admission to Nursing Program. Corequisite: NUR 2943C. This course focuses on adaptation to chronic impairments in physical, mental, or emotional function. Using a lifespan approach, the course provides the theory of rehabilitation nursing in acute, subacute, and skilled nursing facilities in addition to the home. Clinical experience will take place in skilled and long-term care settings. Emphasis is placed on the nurse's role in promoting adaptation.

NUR 2943C
Transitional Nursing
(4 Credits--9 Hours)
Prerequisite: Admission to Nursing Program. All nursing courses except NUR 2753C which is a corequisite. This course provides the student the opportunity to synthesize the concepts of the curriculum in reference to patient care and patient care management. It also offers the student guidance in adapting to the roles of graduate nurse. Opportunities are provided which allow the student to enhance organizational and critical thinking skills under the direction of an instructor and a clinical agency preceptor in various acute care, subacute care, skilled nursing, and community settings.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

RADIOLOGIC TECHNOLOGY

RTE 1503C
Radiographic Positioning I *
(5 Credits – 6 Hours)
This course provides the student with an introduction in radiographic principles, terminology, radiation protection, and instruction in the radiographic positioning and related anatomy for the chest, abdomen, upper extremity, shoulder, lower extremity, pelvis and the vertebral column. This course will also cover trauma radiography, mobile radiography, and pediatric radiography, as they relate to the applicable procedures covered in this course. Required laboratory activities provide the student with the opportunity to participate in simulated examinations on each other for each of the procedures covered in this course. The students will also produce radiographs of phantoms.

RTE 1513C
Radiographic Positioning II* (5 Credits – 6 Hours)
Prerequisite: RTE 1503C. Corequisite: BSC 2086 and BSC 2086L. This course provides the student with instruction in the radiographic positioning and related anatomy of the thorax, skull, facial bones, sinuses, mastoids, temporal bones, upper and lower gastrointestinal system, gallbladder, biliary ducts, urinary system and other specialized procedures. This course will also cover trauma radiography, mobile radiography, and pediatric radiography, as they relate to the applicable procedures covered in this course. Required laboratory activities provide the student with the opportunity to participate in simulated examinations on each other for each of the procedures covered in this course. The students will also produce radiographs of phantoms.

RTE 1418C
Radiologic Science* (4 Credits – 5 Hours)
This course is primarily concerned with content specifications within the Image Production and Evaluation category of the ARRT examination in radiography. The topics include, Density, Contrast, Detail, Distortion, Latitude, Beam Restriction and Filtration, Control of Scatter and Secondary Radiation, Technique Formulation, Exposure Calculation, Film Handling and Storage, Characteristics of Image Receptors, Intensifying Screens, Grids, Film Processing, Digital Processing, Artifacts, Silver Recovery, Image Evaluation, Analysis, and Evaluation of Image Quality. Additional topics include; Imaging Standards, Corrective Action, Equipment Quality Control Procedures and Quality Improvement Methodology. Laboratory activities will require students to perform experiments related to the topics described above, and various types of quality control tests, and image analysis procedures.

RTE 1385
Radiobiology and Radiation Protection
(2 Credits – 2 Hours)
This course is primarily concerned with the content specifications within the Radiation Protection category of the ARRT examination in Radiography. The topics include; patient and personnel protection, biological effects, minimizing patient and personnel exposure, methods of protection, basic properties and units of radiation measurement, NCRP recommendations for protective devices and personnel monitoring, and dosimeters.

RTE 2061
Radiologic Science Seminar
(3 Credit – 3 Hours)
Prerequisite: RTE 2613. This course provides the student with a comprehensive review of all subject content covered on the American Registry of Radiologic Technologist national certification examination in radiography.

RTE 2613
Radiologic Physics
(3 Credits – 3 Hours)
Prerequisite: RTE 1418C. This course is primarily concerned with the content specifications within the Equipment Operation and Maintenance category of the ARRT examination in Radiography. The topics include; X-ray Generators, Transformers, Rectification Systems, Digital Imaging Units, Electricity, Magnetism, Electromagnetism, X-ray Tube, X-ray, Production, X-ray Imaging Systems, Fluoroscopic Systems, Conventional Systems, and PACS Systems. Evaluation of radiographic equipment and accessories will also be covered.

RTE 1804
Clinical Education I
(2 Credits – 128 Total Clinical Hours)
Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the first of six sequential clinical education courses.

RTE 1814
Clinical Education II
(4 Credit – 256 Total Clinical Hours)
Prerequisite: RTE 1804. Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the second of six sequential clinical education courses.

RTE 1824
Clinical Education III
(3 Credit – 168 Total Clinical Hours)
Prerequisite: RTE 1814. Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the third of six sequential clinical education courses.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

RTE 1834
Clinical Education IV
(3 Credit – 168 Total Clinical Hours)
Prerequisite: RTE 1824. Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the fourth of six sequential clinical education courses.

RTE 2844
Clinical Education V
(5 Credits – 336 Total Clinical Hours)
Prerequisite: RTE 1834. Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the fifth of six sequential clinical education courses.

RTE 2854
Clinical Education VI
(5 Credits – 336 Total Clinical Hours)
Prerequisite: RTE 2844. Affiliation agreements with various hospitals enable SJRCC Radiography student to gain valuable clinical experience in departments of radiology. During this clinical rotation students will observe and perform under direct and indirect supervision the application of those skills learned in the classroom and laboratory. This course is the final course of 6 sequential clinical education courses.

SCIENCE

Science laboratory courses that have an assigned credit hour value will be assigned a separate grade from the lecture component. In the event that a student earns a passing grade in one component and not the other, only that component failed need be repeated. If the laboratory component of the course has no credit hour value assigned, a single grade is given to represent work done in both the course lecture and laboratory.

Prerequisite and corequisite requirements must be observed. Failure to enroll in required corequisites will result in administrative withdrawal from the course. In addition, if after registration a student decides to withdraw from either the lecture or the laboratory, he must also withdraw from its corequisite. However, during the last 10 days of the withdrawal period for fall and spring terms or during the last five days of the withdrawal period during summer terms, an instructor may request approval for a student to withdraw from a corequisite. The request must be approved by the Dean of Arts and Sciences.

AST 1002
Introduction to Astronomy ◆
(3 Credits--3 Hours)
Prerequisite: MAT 1033. Corequisite: AST 1002L. The course includes topics on the solar system, stars, galaxies, and cosmology. Basic mathematical skills in arithmetic, equation solving, exponents, trigonometry, unit conversions, and logarithms are utilized.

AST 1002L
Laboratory for Introduction to Astronomy * ◆
(1 Credit--2 Hours)
Corequisite: AST 1002. An introductory laboratory course with exercises on optics, telescope design and structure, spectra, and analysis of data from observations of the sun, moon, planets, and other celestial objects. Some required observing sessions may occur at times other than the scheduled laboratory classes.

BOT 2010
Botany ◆
(4 Credits--3 Hours)
Prerequisite: BSC 1005 and BSC 1005L or BSC 2010/2010L with grades of "C" or higher or permission of the Dean of Arts and Sciences. Corequisite: BOT 2010L. A study of the major divisions of the plant kingdom with emphasis on morphology and physiology.

BOT 2010L
Laboratory for Botany * ◆
(0 Credits--3 Hours) Corequisite: BOT 2010.

BSC 1005
General Biology ◆
(3 Credits--3 Hours)
Corequisite: BSC 1005L. An introduction to and application of fundamental biological concepts for non-science majors. The emphasis will be on major biological concepts such as cell structure and function, biochemistry and metabolism, genetics and the interrelationships among organisms.

BSC 1005L
Laboratory for General Biology * ◆
(1 Credit--2 Hours)
Corequisite: BSC 1005.

BSC 2010
Principles of Biology I * ◆
(3 Credit--3 Hours)
Corequisite: BSC 2010L.
Primarily for science majors, this course emphasizes biology at the cellular level. Topics will include chemistry and biochemistry; cell structure and function; cell division, including mitosis and meiosis; metabolism, including cellular respiration and photosynthesis; and genetics, including Mendelian and molecular genetics and biotechnology.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

BSC 2010L
Laboratory Principles of Biology I * ◆
(1 Credit--3 Hours)
Corequisite: BSC 2010.

BSC 2011
Principles of Biology II * ◆
(3 Credit--3 Hours)
Prerequisites: BSC 2010 and BSC 2010L with a grade of "C" or higher or permission from the Dean of Arts and Sciences.
Corequisite: BSC 2011L. Primarily for science majors, this course emphasizes topics above the cellular level. Topics will include biodiversity; structure and function of tissues, organs, and systems within plants and animals; evolution and ecology.

BSC 2011L
Laboratory Principles of Biology II * ◆
(1 Credit--3 Hours) Corequisite: BSC 2011.

BSC 2085
Human Anatomy and Physiology I ◆
(4 Credits--3 Hours)
Corequisite: BSC 2085L.
This course provides students with an overview of cell structure and function, and a thorough understanding of the anatomy and physiology of the integumentary, skeletal, muscular, articular, nervous, and endocrine systems of the human body.

BSC 2085L
Laboratory for Human Anatomy and Physiology I * ◆
(0 Credits--2 Hours)
Corequisite: BSC 2085.

BSC 2086
Human Anatomy and Physiology II ◆
(4 Credits--3 Hours)
Prerequisite: BSC 2085 and BSC 2085L with a grade of "C" or higher or permission of the Dean of Arts and Sciences. This course is a continuation of BSC 2085. It provides students with a thorough understanding of the anatomy and physiology of the cardiovascular, respiratory, lymphatic, immune, digestive, urinary and reproductive systems of the human body.

BSC 2086L
Laboratory for Human Anatomy
& Physiology II * ◆
(0 Credits--2 Hours)
Corequisite: BSC 2086.

CHM 1010
Solving Chemical Problems ◆
(3 Credits--3 Hours)
Prerequisite: Successful completion of one year of high school chemistry or CHM 1020 or CHM 1032. Students must have completed two years of high school algebra or MAT 1033. This course is designed for students who need more skill solving basic chemistry problems before enrolling in CHM 1045.

CHM 1020
Introduction to Chemistry ◆
(3 Credits--3 Hours)
Corequisite: CHM 1020L. A course designed to provide the non-science major with an introduction to the basic concepts of chemistry with an emphasis on the impact of chemistry on modern society.

CHM 1020L
Laboratory for Introduction to Chemistry * ◆
(1 Credits--2 Hours)
Corequisite: CHM 1020.

CHM 1032
Principles of General Chemistry ◆
(3 Credits--3 Hours)
Corequisite: CHM 1032L. MAT 1033. A course designed primarily for students who are entering the allied health fields. Includes the fundamental laws and theories of inorganic chemistry and an introduction to carbon chemistry. The applications of chemistry to health related fields will be stressed.

CHM 1032L
Lab for Principles of General Chemistry * ◆
(1 Credit--3 Hours)
Corequisite: CHM 1032

CHM 1045
General Chemistry I ◆
(3 Credits--3 Hours)
Corequisite: CHM 1045L. Prerequisite: CHM 1010, CHM 1032 or two years of high school chemistry. Students who have completed one year of high school chemistry are stongly recommended to take CHM 1010, CHM 1020 or CHM 1032 before enrolling in CHM 1045. Students must be concurrently enrolled in, or have completed, MAC 1105 or MAC 1147 with a grade of "C" or higher. Course content includes atomic theory, chemical bonding, reaction stoichiometry, oxidation-reduction, behavior of gases, thermochemistry, and colligative properties.

CHM 1045L
Laboratory for General Chemistry I * ◆
(1 Credit--3 Hours)
Corequisite: CHM 1045.

CHM 1046
General Chemistry II ◆
(3 Credits--3 Hours)
Prerequisite: CHM 1045 and CHM 1045L with a grade of "C" or higher. Corequisite: CHM 1046L. Topics include kinetics, acids and bases, equilibrium, thermodynamics, electrochemistry, and coordination chemistry.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

CHM 1046L
Laboratory for General Chemistry II * ◆
(1 Credit--3 Hours)
Corequisite: CHM 1046. Includes qualitative analysis.

CHM 2120C
Quantitative Analysis * ◆
(4 Credits--8 Hours)
Lecture, two hours; laboratory 6 hours. Prerequisites: CHM 1046 and CHM 1046L with a grade of "C" or higher. A study of the fundamentals of analytical chemistry. Topics include titrimetric and gravimetric methods, spectrophotometry, potentiometry, chromatography, and chemical equilibria.

CHM 2132C
Instrumental Analysis * ◆
(4 Credits--8 Hours)
Lecture, two hours; laboratory 6 hours. Prerequisite: CHM 2120C. A course in instrumental analysis with extensive hands-on laboratory experience. Topics include chromatography, atomic absorption and emission, mass spectrometry, infrared spectroscopy, and nuclear magnetic resonance spectroscopy.

CHM 2210
Organic Chemistry I ◆
(3 Credits--3 Hours)
Prerequisite: CHM 1046 and CHM 1046L with a grade of "C" or higher. Corequisite: CHM 2210L. A study of the structure, synthesis, reactions, and nomenclature of organic compounds.

CHM 2210L
Laboratory for Organic Chemistry I * ◆
(1 Credit--3 Hours) Corequisite: CHM 2210

CHM 2211
Organic Chemistry II ◆
(3 Credits--3 Hours)
Prerequisite: CHM 2210 and CHM 2210L with a grade of "C" or higher. Corequisite: CHM 2211L. This course is a continuation of Organic Chemistry I.

CHM 2211L
Laboratory for Organic Chemistry II * ◆
(1 Credit--3 Hours) Corequisite: CHM 2211.

GLY1001
Earth and Space Science ◆
(3 Credit 3 Hours)
This course acquaints students with the development of science, the integrating principles and theories in the earth sciences, and the practice of the scientific method and with a useful knowledge of selected areas of geology, astronomy and meteorology. Presentation involves lectures, demonstrations and films. The course is for general education and is not designed essentially as an introductory or preparatory course for any of the specific sciences.

HUN 1201
Human Nutrition ◆
(3 Credits--3 Hours)
An introduction to basic principles of nutrition. Emphasis will be on metabolic pathways, nutrient requirements, and nutrition and disease throughout the life cycle.

MCB 2013
Microbiology ◆
(4 Credits--3 Hours)
Prerequisite: BSC 1005 and BSC 1005L or BSC 2010 and BSC 2010L or BSC 2085, BSC 2085L and BSC 2086 and BSC 2086L with grades of "C" or higher or permission of the instructor. Corequisite: MCB 2013L. A basic study of microorganisms with emphasis on scientific principles within a laboratory framework. The student will be exposed to a variety of laboratory procedures.

MCB 2013L
Laboratory for Microbiology * ◆
(0 Credits--3 Hours) Corequisite: MCB 2013.

PHY 1053
General Physics I ◆
(3 Credits--3 Hours)
Prerequisite: Two years of high school algebra and some knowledge of trigonometry. Corequisite: PHY 1053L. Primarily for professional, technical, and others not majoring in the physical sciences. Concepts discussed are mechanics, waves, and heat.

PHY 1053L
Laboratory for General Physics I * ◆
(1 Credit--3 Hours) Corequisite: PHY 1053.

PHY 1054
General Physics II ◆
(3 Credits--3 Hours)
Prerequisite: PHY 1053 with a grade of "C" or higher. Corequisite: PHY 1054L. A continuation of PHY 1053. Electricity, magnetism, waves, optics, and modern topics of physics are the areas of study.

PHY 1054L
Laboratory for General Physics II ◆
(1 Credit--3 Hours) Corequisite: PHY 1054.

PHY 2048
Physics I with Calculus ◆
(3 Credits--3 Hours)
Prerequisite: MAC 2311 with a grade of "C" or higher. Corequisites: PHY 2048L. An introduction to physics utilizing the fundamentals of differential and integral calculus, with an emphasis on theory. The areas of study include mechanics, heat, and wave motion.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

PHY 2048L
Laboratory for Physics I with Calculus * ◆
(1 Credit--3 Hours)
Corequisite: PHY 2048.

PHY 2049
Physics II with Calculus ◆
(3 Credits--3 Hours)
Prerequisite: PHY 2048 with a grade of "C" or higher. Corequisite: PHY 2049L. A continuation of PHY 2048, including the areas of sound, light, charged particle motion in electric and magnetic fields, circuits, magnetism, and nuclear physics.

PHY 2049L
Laboratory for Physics II with Calculus * ◆
(1 Credit--3 Hours) Corequisite: PHY 2049.

PSC 1341
Physical Science ◆
(3 Credits--3 Hours)
Prerequisite: MAT 1033. Corequisite: PSC 1341L. The primary aim of this course is to provide the student with an understanding of some of the basic concepts of physics and chemistry. These concepts are carried through problem solving using formulas requiring a basic understanding of algebra.

PSC 1341L
Laboratory for Physical Science * ◆
(1 Credit--2 Hours) Corequisite: PSC 1341.

PSC 2905
Special Problems in Science ◆
(1-3 Credits)
Directed studies in the area of the sciences. Application to do work in special problems must be made to the instructor who is to direct the study. A design of the study will be presented to the instructor and must be approved by the Dean of Arts and Sciences.

ZOO 2010
Zoology ◆
(4 Credits--3 Hours)
Prerequisite: BSC 1005 and BSC 1005L or BSC 2010 and BSC 2010L with grades of "C" or higher or permission of the Dean of General Education. Corequisite: ZOO 2010L. A study of major phyla of the animal kingdom with emphasis upon the structure, function and evolutionary relationships.

ZOO 2010L
Laboratory for Zoology * ◆
(0 Credits--3 Hours) Corequisite: ZOO 2010

SOCIAL SCIENCE

AFA 2000
Minorities: The African-American Experience ◆
(3 Credits--3 Hours)
The Black experience in the African diaspora; interdisciplinary examination of texts, theories, practices, and philosophic foundations in African-American cultural and sociological history.

AMH 1070
Florida Heritage ◆
(3 Credits--3 Hours)
A survey of the culture, economy, government, geography, history, and natural resources of Florida. Emphasis is given to the rapid progress in the development of agriculture, industry, and education during the past 20 years.

AMH 2010
United States History I ◆
(3 Credits--3 Hours)
A study of the social, economic, political, religious, intellectual, and cultural factors that contributed to the growth of the United States from European backgrounds to 1877.

AMH 2020
United States History II ◆
(3 Credits--3 Hours)
This is a continuation of AMH 2010, from 1877 to the present. Emphasis is placed upon the factors that have changed the United States from a rural-agricultural nation to an urban-industrial world power.

AMH 2060
The Southern Frontier ◆
(3 Credits--3 Hours)
The study of the early history of the American South, ranging geographically from Florida to the Louisiana Territory to Georgia and the Carolinas, from 1513 to statehood. Particular attention is placed on the period of discovery, exploration, and settlement, with emphasis placed on the struggle among the English, French, Spanish, and Indians on the colonial frontier.

ANT 2000
General Anthropology ◆
(3 Credits--3 Hours)
A wide-range survey of man's biological and cultural nature. Topics include primates, early hominids, human variation, language, sex, magic, art, religion, evolution, and the origins of civilization.

**Laboratory fee required. +Examination fee required. ◆Meets A.A. degree requirements.*

CHD 1220
Child Development for Teachers of Young Children ◆
(3 Credits--3 Hours)
An introductory course in the physical, social, emotional, language, and cognitive development of young children with a focus on both typical and atypical development. The importance of positive relationships with families will be examined.

DEP 2004
Human Growth and Development ◆
(3 Credits--3 Hours)
A study of the interactions of physical growth, health, cognitive maturation, family and social networks in the development of persons of all ages. All psychological aspects of development through the life cycle are considered.

DEP 2102
Child Psychology ◆
(3 Credits--3 Hours)
A study of the development of the child from birth to the adolescent years. Emphasizes developmental and psychosocial aspects of childhood, including heredity, environment, maturational, intellectual, physical, psychological, and social determinants of a child's world.

DEP 2302
Adolescent Psychology ◆
(3 Credits--3 Hours)
A topical approach to the study of adolescence describing developmental patterns associated with identity, puberty, thought, and moral judgement relating to environmental influences with suggested applications for parents, teachers, counselors, nurses, and social workers.

ECO 2013
Macroeconomics ◆
(3 Credits--3 Hours)
A course designed to introduce the student to economic theory and its social applications. Course content includes American capitalism; national income, employment, and fiscal policy; money, monetary policy, and economic stability; and economic growth.

ECO 2023
Microeconomics ◆
(3 Credits--3 Hours)
A course designed to introduce the student to economic theory and its social applications. Course content includes economics of the firm and resource allocation; current domestic economic problems; international economics; and alternative economic systems.

INR 2002
International Relations ◆
(3 Credits--3 Hours)
An introduction designed to give the student a basic understanding of theories explaining international political and economic actions and outcomes, including analysis of and developments in: international state systems, power relations, diplomacy, international law, international organizations, foreign policy decision-making, and issues regarding trade, environment and technology.

ISS 2905
Special Problems in Social Science ◆
(1-3 Credits)
Directed studies in the area of the social sciences provide for independent research in the social sciences. Application to do work in special problems must be made to the instructor who is to direct the study. A design of the study will be presented to the instructor and must be approved by the Dean of Arts and Sciences.

POS 1041
United States Federal Government ◆
(3 Credits--3 Hours)
Basic aspects of the Federal Government are studied. Emphasis is placed on content and interpretation of the Constitution, Federalism, the Congress, the Presidency, and the Federal Court System as related to current problems in civil rights, economics and foreign policy. The operations of input mechanisms and institutions such as voters, public opinion, interest groups and political parties are analyzed.

POS 1112
State and Local Government ◆
(3 Credits--3 Hours)
Activities and functions of state, regional, county, city, and special district governments are studied. Florida's constitution and structure, parties, politics, elections, interest/ethnic groups, public opinion and governmental services are examined and compared with those of other states in the U.S. Important environmental and growth management problems are analyzed.

PSY 2004
Abnormal Psychology ◆
(3 Credits--3 Hours)
Prerequisite: PSY 2012. An introduction to mental illness, its definition, classification, and treatment. Includes the historical background of abnormal psychology, the major conceptualizations, and the nature and descriptions of psychological disorders. Assumes knowledge of concepts typically learned in an introductory psychology course.

PSY 2012
General Psychology ◆
(3 Credits--3 Hours)
An introduction to psychology designed especially for transfer students. Major areas include: the nature of man, human development, motivation, abnormal behavior, personality, learning perception, social behavior, brain-behavior, relationships, physiology and animal behavior.

PSY 2905
Special Problems in Psychology ◆
(3 Credits--3 Hours)
Directed studies in the area of psychology. Application to do work in special problems must be made to the instructor who is to direct the study. A design of the study will be presented to the instructor and must be approved by the Dean of Arts and Sciences.

REL 2210
Survey of the Old Testament ◆
(3 Credits--3 Hours)
This course introduces the student to the study of the Old Testament and its history, geography, personalities, teachings, authority, and influence upon our culture.

REL 2240
Survey of the New Testament ◆
(3 Credits--3 Hours)
This course introduces the student to the study of the New Testament and its history, geography, personalities, teachings, authority, and influence upon our culture.

REL 2300
World Religions ◆
(3 Credits--3 Hours)
A course which introduces the student to the world's great religions by means of an objective examination of their origins and a study of their historical development. Religions include: Jainism, Buddhism, Confucianism, Taoism, Shintoism, Zoroastrianism, Judaism, Christianity, and Islam.

SLS 1101
College Success Skills ◆
(3 Credits--3 Hours)
A course designed to teach students the behaviors consistent with success in academic settings. Opportunity is provided via lecture, individual and group activities, and tests for learning and practicing effective ways of coping with the demands of college life. Topics include note and test-taking strategies, active listening skills, reading strategies, mnemonics, proper management of time and money, goal setting, awareness of resources, and positive attitude development. This course may not be used for social science credit.

SLS 1301
Career Development * ◆
(1 Credit--1 Hour)
A course designed to aid the college student in career planning. Areas of opportunity in the employment market, as well as appropriate educational programs in preparing for those employment areas, are discussed. Modern techniques and standardized testing are utilized in assisting the student in personal career choice. This course may not be used for social science credit.

SYG 1000
Introduction to Sociology ◆
(3 Credits--3 Hours)
An introductory course covering six basic areas: the sociological perspective; social influences; social behavior; social inequality; social institutions; and social change. Topics include sociological reasoning, culture, personality development, groups, deviance, ethnic and racial minorities, the family, and population.

SYG 1410
Marriage and the Family ◆
(3 Credits--3 Hours)
A functional course designed to help the student understand and manage the problems and adjustments encountered in marriage and family living. Emphasis is placed on preparation for marriage, spouse selection, the causes and resolution of marital conflict, sexual roles, parenthood, family finance management, and an exploration of current changes in values and structures.

SYG 2010
Contemporary Social Problems ◆
(3 Credits--3 Hours)
This course covers the nature, development, and dimensions of social problems in contemporary society. Problems are studied from three perspectives: symbolic interaction theory, functionalist theory, and conflict theory.

WOH 1012
World Civilization I ◆
(3 Credits--3 Hours)
A survey course tracing the development, growth, and interaction of civilized societies from prehistoric times to the 18th century, showing their influences on each other and their contributions to human culture.

WOH 1022
World Civilization II ◆
(3 Credits--3 Hours)
A survey of civilization from the 18th century to the present. Topics include industrialization, nationalism, imperialism, the emergence of the modern state system, U. S. constitutional development, revolutions and wars of the 20th century, and the present world structure.

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