Course Directory

“Chipola was the best choice I could have made for my pursuit in obtaining a well-rounded background in my education endeavors. Keep up the great work!”

2005 Graduating Student Survey

“The Honors Program offers a relaxed learning environment and stimulates excellence in and out of the classroom.”

Kelly Slichter
Graduate

“Chipola gave me an example of teaching for learning, not for tradition, determination for self, not others, and a community united, not divided.”

Holli Crawford
Special/Elementary Education Major
Transfer Student to the University of West Florida, Chipola Campus

“I would like to thank you for providing the Bachelor’s degree. I couldn’t go to college because of my work and family without this program. I’m 37 years old, married to a wonderful special education teacher, have four kids, and have done many various jobs. The older I get, the more I see that a good solid high school education is the best way to improve an individual, the community and the world.”

David Shuler
Math Education Major
Senior

“The community college program has been a tremendous asset to the citizens of Florida. Many students would not have been able to achieve a college education without it. This is probably more true at Chipola than anywhere else.”

Amos McMullian, CEO, Flowers Baking Co.
1996 Outstanding Alumnus

Florida’s Statewide Course Numbering System
Self-Directed Study Programs
Directory of Courses by Prefixes
Course Descriptions
Florida’s Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida’s Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by participating non-public institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the “SCNS taxonomy.” Descriptions of the content of courses are referred to as “statewide course details.”

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions. (Exceptions are listed below.) For example, a survey course in social problems is offered by 34 different postsecondary institutions. Each institution uses “SYG_010” to identify its social problems course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, “SYG” means “Sociology, General,” the century digit “0” represents “Entry-level General Sociology,” the decade digit “1” represents “Survey Course,” and the unit digit “0” represents “Social Problems.”

In science and other areas, a “C” or “L” after the course number is known as a lab indicator. The “C” represents a combined lecture and laboratory course. The “L” represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which may meet at a different time or place.

Transfer of any successfully completed course from one institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, SYG 1010 is offered at a community college while the same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university upon transfer. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution to offer transfer credit for courses successfully completed which have not been designated as equivalent.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the prefix designation.

Authority for Acceptance of Equivalent Courses

State Board of Education Rule 6A-10.024(19), Florida Administrative Code, reads:

When a student transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the ap-
appropriate common course designation and numbering system faculty task forces to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The award of credit may be limited to courses that are entered in the course numbering system. Credits so awarded shall satisfy institutional requirements on the same basis as credits awarded to native students.

Exceptions to the General Rule for Equivalency

The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution:

A. Courses in the 900-999 series (e.g., HUM 2905)
B. Internships, practica, clinical experiences, and study abroad courses
C. Performance or studio courses in Art, Dance, Theater, and Music
D. Skills courses in Criminal Justice
E. Graduate courses
F. Courses not offered by the receiving institution

College preparatory and vocational preparatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to (Name of Institution Statewide Course Numbering System Contact) in the (Office where Institution Contact may be located) or the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling telephone number (850) 245-0427 or SunCom 205-0427.

Self-Directed Study Programs

Independent Study

Independent Study courses are provided for students who cannot attend campus classes. In effect, Independent Study students set their own study hours.

Students will have a syllabus to follow and instructional materials such as a text and/or videotaped lectures. However, students enrolled in one of these courses must attend the orientation and examination sessions on campus at the dates specified in the syllabus for each course. Times that the instructor can be contacted are published in the syllabus.

Also, students taking an Independent Study class must meet the placement testing and admissions requirements of the college. Students must register during the registration dates listed in the college calendar. All college policies and deadlines apply to Independent Study students. Course work should be completed during the term in which it is started.

Sample syllabi may be reviewed in advance of the orientation session in the college library, in Student Services, or in the offices of the instructional deans.

When videotapes are to be used with a course, they may be viewed or checked out at the Chipola College Library or at the following county public libraries: Calhoun, Holmes, Jackson, Liberty, and Washington.

Independent Study classes cost an additional $25 per semester hour.

Directed Individualized Study

Students may wish to pursue individualized study in courses that may not be offered in the current schedule or offered at a time available to them. DIS course work should be completed during the term in which it is started. Students who desire to register for DIS and who have not registered by the Drop Without Penalty Date for that term may appeal to the Vice President of Instructional & Student Services.

DIS courses cost an additional $25 per credit hour. Students should contact the appropriate instructional dean for further information.

Transferability Code

Courses are designated throughout this section according to their transferability to the State University System.

A—College transfer course which counts toward the Associate in Arts degree and transfer to the SUS.
B—College transfer/occupational course which counts toward the Associate in Arts and the Associate in Science degrees and transfer to the SUS.
O—Occupational course which counts only toward the Associate in Science degree and will not transfer or apply toward the Associate in Arts degree.
P—Preparatory course which will not count toward a degree or will not transfer or apply toward the Associate in Arts Degree.
V—Applied Technology/vocational course which will not count toward a degree or transfer.
Course descriptions are listed in alphabetical order by prefix. To determine a prefix see the Directory of Courses by Prefixes listed by major disciplines.

**Directory of Courses by Prefixes**

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**Course Descriptions**

**A**

ACG 2002. **Integrated Accounting on Microcomputers.** This course is intended for students desiring a working knowledge of computerized accounting using microcomputer software. The five major systems commonly found in computerized accounting environments are covered—general ledger, depreciation, accounts receivable, accounts payable, and payroll. Prerequisite: APA 1251 (or a department approved Tech Prep equivalent in high school) or consent of department. 3 semester hours credit. [D]

ACG 2021. **Introduction to Financial Accounting.** An introductory course in the principles and practices of financial accounting emphasizing the measurement and reporting of income. The basic accounting model, measuring and reporting assets, liabilities and stockholders’ equity, special reports and analyses of accounting information also are covered. 3 semester hours credit. [D]

ACG 2071. **Introduction to Managerial Accounting.** This is an introductory course in managerial accounting which emphasizes the use of accounting data with respect to planning operations, controlling activities and the decision making responsibilities of managers. Prerequisites: A grade of “C” or better in ACG 2021 or consent of department. 3 semester hours credit. [D]

AMH 2091. **African-American History I.** An introductory course designed to acquaint students with, and stimulate interest in, the culture and history of the African-American. Emphasis is on the origins, struggles, fears, aspirations, and achievements of African-Americans. No prerequisite, but either AMH 2010-2020 or SYG 1000-1010 is recommended. This course has been designated as an international/diversity course. 3 semester hours credit. [A]

AMH 2092. **African-American History II.** African-American is an introductory course designed to acquaint students with, and stimulate interest in the culture and history of African-Americans from the Reconstruction period to the present. Emphases are on the struggles, fears, aspirations and achievements of the people. No prerequisite, but either AMH 2010-2020 or SYG 1000-1010 is recommended. This course has been designated as an international/diversity course. 3 semester hours credit. [O]

AML 2010. **Survey of American Literature I.** A survey of major philosophies and American writers from the colonial period to the Civil War, including Franklin, Irving, Cooper, Bryant, Poe, Emerson, Thoreau, Hawthorne, Longfellow, Melville, and Whitman. Gordon Rule: 6,000 words. Prerequisites: Grades of “C” in ENC 1101-1102. 3 semester hours credit. [A]

AML 2020. **Survey of American Literature II.** A survey of major philosophies and American writers from the Civil War to the modern period, including Dickinson, Twain, Crane, Frost, Hemingway, and Faulkner. Gordon Rule:
An investigation into the origin and hours credit. No prerequisite. 3 semester hours credit. [D]

**APA 1251. Introduction to Accounting.** This course provides an introduction to the field of accounting. It provides a basic knowledge of elementary accounting terminology, procedures and records. It is intended for students who desire an overview of the field of accounting. No prerequisite. 3 semester hours credit. [D]

**ARH 1000. The Purpose of Art.** An investigation into the origin and development of the visual arts as an integral expressive mode of man, individually and collectively. Particular emphasis is placed upon uses of the arts in expression, communication, and exploration of human ideas and values. 3 semester hours credit. [D]

**ART 1100C. Crafts I.** A course offering experience in the creative use of a variety of materials. 3 semester hours credit. [D]

**ART 1201C. Introduction to Two-Dimensional Design.** The elements and principles of design as applied to the two-dimensional plane. Various media will be used in two-dimensional design projects. Six hours laboratory per week. 3 semester hours credit. [D]

**ART 1203C. Introduction to Three-Dimensional Design.** The elements and principles of design as applied to the three dimensions. Various media will be used in three-dimensional design projects. Six hours laboratory per week. 3 semester hours credit. [D]

**ART 1300C. Introductory Drawing.** An introductory drawing course designed to provide basic drawing skills. Emphasis on perspective, media, technique, and style. Six hours lecture and studio per week. 3 semester hours credit. [D]

**ART 1301C. Introductory Drawing.** A continuation of ART 1300C with emphasis placed upon spatial description through perspective and other means with a greater exploration of the drawing processes through mixed technique. Prerequisite: ART 1300C. Six hours lecture and studio per week. 3 semester hours credit. [D]

**ART 1750C. Introduction to Ceramics.** The firing and glazing of clay pieces built by hand or formed on the potter’s wheel, with consideration given to the role of ceramics in the history of mankind and the modern world. Four hours studio per week. 3 semester hours credit. [D]

**ART 1751C. Introduction to Ceramics.** A continuation of ART 1750C, but with more opportunity for the student to perfect the techniques found most interesting, and to work on individual projects of personal choice. Prerequisite: ART 1750C or consent of instructor. Four hours studio per week. 3 semester hours credit. [D]

**ART 2500C. Color and Pictorial Composition.** Training in the problems of spatial organization through line, planes, color, light, motion, and volume. Oil or acrylic is the principal medium. Prerequisite: consent of the instructor. Six hours studio per week. 3 semester hours credit. [D]

**ART 2501C. Color and Pictorial Composition.** Advanced study of the problems of pictorial composition, with greater emphasis upon individual creativity and invention. Prerequisite: ART 2500C. Six hours studio per week. 3 semester hours credit. [D]

**ART 2701C. Introduction to Sculpture.** A beginning course designed to introduce the student to the materials and methods of creating sculpture. Primary media include clay, plaster, wood, and cement. Prerequisite: ART 1300C or 1301C, or consent of instructor. Six hours lecture and laboratory per week. 3 semester hours credit. [D]

**AST 1002. General Astronomy.** A course designed to aid the student in understanding the relationship between the earth and the universe. The natural structure and theories of the solar system are presented as a background to a discussion of our galaxy and universe. Topics discussed include the solar system, historical astronomy, constellations, space exploration, theories of the origin of the universe, and the construction of a telescope. 3 semester hours credit. [D]

**BCH 3023 INTRODUCTION TO ORGANIC AND BIOCHEMISTRY**
A survey of organic chemistry and modern biochemistry with special emphasis on those concepts which are of use to science educators. Prerequisite: A grade of C or better in CHM 1046. 3 semester hours credit. [A]

**BOT 3015 Plant Biology**
BOT 3015 is an introduction to evolutionary relationships, natural history, ecological adaptations and physiology of plants, fungi, selected protista and prokaryotes. This course addresses specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for teacher certification. Prerequisites: BSC 2010, BSC 2011, CHM 1046. 3 semester hours credit. [A]

**BSC 1005. Introduction to Biological Sciences.** This is a basic general education course to give the student an understanding of the major biological concepts of anatomy, reproduction, development, genetics, ecology and evolution in plant, animal and human life. This course cannot be used to satisfy degree requirements for students who already have credit in BSC 2010 and/or BSC 2011. Prerequisite: Acceptable placement scores in reading or a grade of “C” or higher in REA 0004. 3 semester hours credit. [D]

**BSC 2010. Integrated Principles of Biology I.** An introductory study of the mechanisms directing the development and maintenance of life on earth. Particular attention is given to cell biology, metabolism, reproduction, biotechnology, genetics and evolution as the major unifying forces in the study of life through the ages. 3 semester hours credit. [D]

**BSC 2010L.Integrated Principles of Biology I Lab.** A laboratory course that acquaints the student with selected biological principles including cell biology, metabolism, genetics, physiology and evolution. Corequisite: BSC 2010. Two hours laboratory per week. 1 semester hour credit. [D]

**BSC 2011. Integrated Principles of Biology II.** An introduction to structure and function at the cellular and organismal level; modern concepts of physiology with emphasis on man; and principles of ecology. 3 semester hours credit. [D]

**BSC 2011L. Integrated Principles of Biology II Lab.** A laboratory course intended to be taken concurrently with BSC 2011. Laboratory experiences correlate with the lecture topics in the structure and function of plants and animals and ecology. Activities include dissection of the fetal pig, nonseed and seed plants, and may include field trips. Corequisite: BSC 2011. Two hours laboratory per week. 1 semester hours credit. [D]

**BSC 2093C. Human Anatomy & Physiology I.** An introduction to the study of the functions of the human body. Scope: basic organization and structure with histology, integumentary system, skeletal system, muscular system, and nervous system. Laboratory follows the scope with dissection and experiments. Prerequisite: BSC 1005, BSC 2010 or equivalent; a pretest will be administered to determine preparation for this course. Three hours lecture and two hours laboratory per week. 4 semester hours credit. [D]

**BSC 2094C. Human Anatomy & Physiology II.** An introduction to the study of the functions of the human body. Scope: special senses; endocrine, circulatory, respiratory, digestive, urinary, and reproductive systems; and metabolic regulation. Laboratory follows the scope with dissection and experiments. Prerequisite: BSC 2093C or BSC 2010 and/or consent of department. Three hours lecture and two hours laboratory per week. 4 semester hours credit. [D]

**BUL 2131. Legal Environment of Business.** A survey course of the legal environment of business. It provides an overview of the major areas of the law that shape the environment in which businesses operate. Areas covered include...
an introduction to law and the legal system, contracts, sales of goods and commercial paper under the UCC, property, agency and employment, business organizations, bankruptcy, and consumer protection. 3 semester hours credit. [D]

C

CCJ 1020. Introduction to Criminal Justice. A study of the history, philosophy, ethics, development, and objectives of the criminal justice systems. The organization and administration of local state, and federal criminal justice agencies are emphasized. Professional career opportunities are surveyed. 3 semester hours credit. [D]

CCJ 1500. Juvenile Delinquency. A history of the juvenile court system in the United States is reviewed. Delinquency and the family are analyzed. Delinquency control, including the police, courts, legislation and support agencies are discussed. 3 semester hours credit. [D]

CEN 1300. Microsoft Systems Administration. This course provides students with the knowledge and skills necessary to install, configure, customize and troubleshoot Microsoft Windows client software. Prerequisite: CGS 1264 and CGS 1550. 3 credit hours. [O]

CEN 2301. Microsoft Advanced Systems Administration. This course provides students with the knowledge and skills necessary to install, manage, monitor, configure and troubleshoot DNS, DHCP, remote access, network protocols, and IP routing in a network environment. Prerequisite: CEN 1300. 3 semester hours credit. [O]

CEN 2307. Internet/Intranet Site Management. This course covers the procedures and issues involved in setting up and managing a Web site, including legal issues, security, marketing, domain name registration, and Web server software installation and management. Prerequisite: CGS 1550 or consent of department. 3 semester hours credit. [D]

CEN 2320. Administering Network Infrastructure. This course is designed to provide the student with the knowledge and skills necessary to install, manage, monitor, configure and troubleshoot DNS, DHCP, Remote Access, network protocols, IP routing in a Windows network infrastructure. Prerequisite: CEN 2301. 3 semester hours credit. [O]

CEN 2527. Introduction to Network Routing and Switching. An introduction to network routing and switching. Topics include TCP/IP routing fundamentals; router configuration and troubleshooting; switching concepts and switch configuration; WAN connectivity, VLANs, and VPNs. Hands-on laboratory exercises are included. Prerequisite: CGS 1263 or consent of department. Contact the course instructor for details. 3 semester hours credit. [D]

CET 1111. Logic Circuits. A study of Boolean algebra which covers binary arithmetic, decimal-to-binary conversion logic gates, logic simplification and combinational logic. 1 semester hour credit. [D]

CET 1171. Introduction to Microcomputer Maintenance. This course introduces computer hardware components and system software needed to set up, install, configure, upgrade, and maintain a microcomputer system. 3 semester hours credit. [O]

CET 1178C. Microcomputer Maintenance and Repair. This course is designed to prepare students to perform routine maintenance and repairs on the PC. Emphasis will be on diagnosing, troubleshooting, disassembling, replacing, and repairing the microcomputer. Prerequisite: CET 1171 or consent of department. 3 semester hours credit. [O]

CET 2114C. Digital Circuits. A study of digital circuits in the form of pulse and switching circuits, binary and octal numbers, Boolean Algebra, multivibrators, counters and registers, input-output devices, conversions, adders, and control circuits and systems. Prerequisite: EET 2119C. Six semester hours lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [D]

CET 2152C. Microcomputer Systems. A study of microprocessors as a part of a complete microcomputer. Included are assembly languages, programming techniques, hardware test and measurement techniques, diagnostic programming to repair training computers, microprocessor system and utilization of appropriate test equipment. Prerequisite: CET 2114C. Six hours lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [D]

CET 2173C. Digital Systems-Fault Analysis. A study of fault analysis and troubleshooting techniques as applied to various types of digital systems comprised of both discrete and integrated circuits. Involves a practical hands-on application to troubleshooting, using diagnostic programming to repair training computers, microprocessor systems and utilization of appropriate test equipment. Prerequisite: CET 2152C. Four hours lecture/laboratory per week. 3 semester hours credit. [D]

CGS 1060. Introduction to Microcomputer Use. An introduction to the use of microcomputers. Includes terminology and an introduction to the operation of typical microcomputer hardware and software. No prerequisite. No previous computer experience required but keyboarding or typing skill recommended. 3 semester hours credit. [D]

CGS 1100. Microcomputer Applications for Business and Economics. This course provides a survey of current microcomputer applications software, including general terminology, features and operating procedures for specific software, and techniques for accomplishing a variety of business and personal tasks. The student will acquire operational skills for using microcomputers in support of business and personal tasks. Prerequisite: CGS 1060 and acceptable college placement test scores or successful completion of the appropriate college-prep classes, or consent of department. 3 semester hours credit. [D]

CGS 1263. Introduction to Networking and Communications. An introduction to the hardware needed to set up and operate a local area network, including a discussion of configurations, physical specification, and requirements and limitations of network components and workstations. Prerequisite: CGS 1060 or consent of department. 3 semester hours credit. [D]

CGS 1500. Word Processing. An in-depth course in word-processing software and functions. Topics include creating, editing, and formatting documents; report creation including outline, table of contents, footnote/endnote, and index; merging documents; form letters and mail merge; and creating tables, charts, forms, newsletters and Web pages. Prerequisites: CGS 1060 or consent of department. 3 semester hours credit. [D]

CGS 1510. Introduction to Spreadsheet. A course using spreadsheet software for microcomputers for business and personal numerical problem-solving. Provides an introduction to the basic operations and capabilities of spreadsheet software through hands-on exercises. Prerequisite: CGS 1060 or consent of department. 2 semester hours credit. [D]

CGS 1525. Introduction to Presentation Software. An introduction to the use of presentation software on microcomputers. Covers the process of planning a presentation, presentation design principles, and the use of software to create effective visuals to support business presentations. Prerequisite: CGS 1060 or consent of department. 2 semester hours credit. [D]

CGS 1540. Introduction to Database Management. A course using microcomputers for database management. Provides an introduction to the basic operations and capabilities of database management software through hands-on exercises. Prerequisite: CGS 1060 or consent of department. 2 semester hours credit. [D]

CGS 1545. Database Programming. An advanced course in database management. Topics include relational database design and normalization, the
process of custom application development, techniques for customizing the user environment, and the use of microcomputer database software to develop custom business applications. Prerequisite: CGS 1540 or consent of department. 3 semester hours credit. [D]

**CGS 1550. Introduction to LAN Management.** An introduction to software used in operating a local area network. Hands-on experience with one or more software packages will be provided. Prerequisite: CGS 1060 and acceptable college placement test scores or successful completion of the appropriate college-prep classes, or consent of department. 3 semester hours credit. [D]

**CGS 1557. Introduction to Web Authoring and Design.** This course covers the procedures involved in designing and creating Web pages and Web sites. Includes hands-on laboratory assignments using current Web development software and/or current Web languages. Prerequisite: CGS 1060 Introduction to Microcomputer User or consent of department. Contact the course instructor for details. 3 semester hours credit. [D]

**CGS 1565. Microcomputer Operating Systems.** A survey of operating systems for microcomputers, including basic operating system functions such as disk and file management, customizing system configuration, and optimizing system performance. Prerequisite: CGS 1060 or consent of department. 3 semester hours credit. [D]

**CGS 1580. Introduction to Desktop Publishing.** An introduction to the production of camera-ready masters for photocopiers or offset presses using microcomputer equipment and desktop publishing software. Prerequisite: CGS 1060 or consent of department. 2 semester hours credit. [D]

**CGS 1876. Introduction to Desktop Multimedia.** This course covers the procedures involved in capturing and editing audio and video, creating animated graphics, and incorporating graphics, animations, audio and video into Web pages. Includes hands-on assignments using current multimedia software and Web tools. Prerequisite: CGS 1060 or consent of department. 2 semester hours credit. [D]

**CGS 2930-2931. Topics in Computer Software.** A seminar covering a software package of current interest. Open to all students. Prerequisite: CGS 1060 or consent of department. 1 semester hour credit. [D]

**CHD 1220. Child Growth & Development I.** This course is a study of the growth and development of the child from conception through age five, including the physical, social, emotional and mental development of the young child, influence of environment and principles and theories of development. 3 semester hours credit. [O]

**CHD 1430. Observing and Recording Child Behavior.** This course is designed to increase objectivity and proficiency in observing, recording, and interpreting children’s behavior in addition to increasing awareness of normative patterns of behavior of children from birth through 5 years of age. Includes observation of infants, toddlers, and a case study of a child from this age group. 3 semester hours credit. [O]

**CHD 1941. Early Childhood Internship.** This course provides on-the-job training toward the Child Development Associate Credential, Occupational Certificate, and Associate in Science Degree. The student will be assigned a qualified supervisor appointed by the respective agency for which he/she works. The course may be repeated four times. Prerequisites: CHD 1430 and CHD 2432. 3 semester hours credit. [O]

**CHD 2322. Programs for Young Children.** This course is a study of the principles and practices of programs for young children. It includes current research in early childhood education, role of the teacher, and selection and use of equipment and materials for groups of young children. Prerequisite: CHD 1220 or consent of department. 3 semester hours credit. [O]

**CHD 2432. Curriculum for Young Children.** This course is a study of the techniques of using language arts, science, art, social studies, math, and physical activities with young children with emphasis on interdisciplinary learning. Prerequisite: CHD 1220 or consent of department. 3 semester hours credit. [O]

**CHD 2800. Child Care/Education Administrative Overview.** This course is designed to meet the educational requirements for the Foundation Level Child Care and Education Administrator Credential as defined by the State of Florida. The curriculum provides for administrative skills in the areas of personnel selection and management, ethics, finances, legal issues and early childhood education. Prerequisite: CHD 1220 or consent of department. 3 semester hours credit. [O]

**CHM 1030. General, Organic and Biochemistry for Health and Related Science I.** This course consists of selected topics, specifically designed for a health-related major, with practical application of the chemical concepts of matter, atoms, measurement, bonding, reactions, pH, etc. The organic portion will introduce carbon chemistry and its compounds and their relationship to health-related fields. Three hours lecture per week. Prerequisite: Eligibility for MAC 1105. Corequisite: CHM 1030L or consent of department. 3 semester hours credit. [D]

**CHM 1030L. General, Organic and Biochemistry Lab.** This laboratory course is designed to provide basic laboratory experiences correlated with CHM 1030. Emphasis of these labs is specifically designed for a health related major with practical application of the chemical concepts of matter, atoms, measurement, bonding, reactions, pH, etc. The organic portion will introduce carbon chemistry and its compounds and their relationship to health related fields. Corequisite: CHM 1030. Three hours laboratory per week. 1 semester hour credit. [D]

**CHM 1045. General Chemistry I.** The courses CHM 1045-1046 are designed to fulfill requirements in general chemistry for the first year in science, premedical, and engineering curricula. Includes units and measurements, chemical calculations, thermochemistry, gases, liquids, solids, atomic structure, and bonding. Prerequisite: CHM 1030 (with a grade of C or better) or one credit in high school chemistry and eligibility for MAC 1140 or a more advanced course. CHM 1045L should be taken concurrently. 3 semester hours credit. [A]

**CHM 1045L. General Chemistry Laboratory I.** An introduction to experimental techniques in chemistry, designed to demonstrate basic chemical principles. Prerequisite or corequisite: CHM 1045. Three hours laboratory per week. 1 semester hour credit. [A]

**CHM 1046. General Chemistry II.** A continuation of CHM 1045, including solutions, equilibrium, kinetics, acids and bases, redox reactions, nuclear reactions, and organic compounds. Prerequisite: A grade of C or better in CHM 1045; CHM 1046L should be taken concurrently. 3 semester hours credit. [A]

**CHM 1046L. General Chemistry Laboratory II.** A continuation of CHM 1045L. Prerequisite or corequisite: CHM 1046. Three hours laboratory per week. 1 semester hour credit. [A]

**CHM 2210. Organic Chemistry I.** A study of the preparation and properties of various aliphatic and aromatic compounds. Prerequisite: CHM 1046 or equivalent with a grade of “C” or better. Corequisite: CHM 2210L. 4 semester hours credit. [A]

**CHM 2210L. Organic Lab I.** An organic laboratory to be taken concurrently with CHM 2210. Three hours laboratory per week. 1 semester hour credit. [A]

**CHM 2211. Organic Chemistry II.** A continuation of CHM 2210. Prerequisite: CHM 2210. Corequisite: CHM 2211L. 3 semester hours credit. [A]
CHM 2211L, Organic Lab II. An organic laboratory to be taken concurrently with CHM 2211. Three hours laboratory per week. 1 semester hour credit. [A]

CIS 1000. Introduction to Computing Systems. This introductory course includes the terminology, procedures, and equipment used in computing systems and in developing software applications. It includes such topics as internal operations of a microprocessor, current memory and storage technologies, data representation, binary arithmetic, character codes, systems development cycle, software design and development, and careers in computing. Prerequisites: Eligible to enroll in MAC 1140 or higher mathematics course, or consent of department. 3 semester hours. [D]

CIS 1941. Internship in Computer Science. Supervised, practical work experience in an appropriate business, industry, government agency, or institution which relates to the Computer Science/Information Technology/Network Administration field of study. A minimum of 45 clock hours on the job is required for each semester hour of credit earned. 1-3 semester hours credit. May be repeated for a maximum of 3 semester hours credit. [D]

CIS 2341. Introduction to UNIX/Linux. An introduction to the UNIX/Linux network operating system. Topics include installation and configuration of both client and server, GUI and command line interface, file management, system utilities, remote connectivity, and scripting. Hands-on laboratory exercises are included. Prerequisite: CEN 2301 Microsoft Advanced Systems Administration, or consent of department. Contact the course instructor for details. 3 semester hours credit. [D]

CIS 2354. Introduction to Network Security. This course covers an introduction to Network Security, concepts, terminology and a basic understanding of available Network Security methods and programs. Topics include legal issues and policies, managing risks, identifying types of attacks, information security best practices, E-Commerce needs and intrusion detection platform-specific implementations. Prerequisite: CEB 2301. 3 semester hours credit. [D]

CIS 2900. Applied Programming Specialty. A course in using a particular programming language to create programs to solve a particular problem. Students write a contract for the particular programming activities to be completed during the course. Prerequisite: 6 semester hours credit in courses with COP prefix or consent of department. 1-3 semester hours credit. [D]

CIS 2930-2931. Topics in Computer Science. A seminar covering a topic of current interest in computer science for computer science majors. Prerequisite: CIS 1000 or consent of department. 1 - 2 semester hours credit. [D]

CIS 2949. Cooperative Education in Computer Science. Supervised, practical work experience in an appropriate business, industry, government agency, or institution which relates to the Computer Science/Information Technology/Network Administration field of study. A minimum of 60 clock hours on the job is required for each semester hour of credit earned. 1-3 semester hours credit. May be repeated for a maximum of 3 semester hours credit. [D]

CJB 2461. Advanced Correctional Operations. An advanced course in correctional operations for in-service Florida Correctional Officers, designed to increase skills in correctional agency organization and mission, records and reports, legal applications to correctional operations, correctional facility security, intake/classification/release procedures, fire safety and discipline procedures, introduction to supervision and release and bonding procedures. FDLE - CISTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJC 1000. Introductions to Corrections. An examination of the total correctional processes from law enforcement through the administration of justice, probation, prisons, and correctional institutions, and parole history and philosophy, career oriented. 3 semester hours credit. [D]

CJC 2162. Probation, Pardons, and Parole. A course which examines the use of probation, parole, and pardons as alternatives to incarceration. Prerequisite: CCJ 1020. 3 semester hours credit. [D]

CJD 1696. Community and Human Relations for Law Enforcement Officers. This course is designed to help officers understand their own feelings in efforts to create an ability to effectively deal with the feelings of others. Law enforcement image and functions as well as conflict-causing barriers which exist between police and the community are explored. 2 semester hours credit. [O]

CJD 2250. Interviews and Interrogations. An advanced course designed to cover the techniques, methods, principles, and issues of interviews and interrogations. 2 semester hours credit. [O]

CJD 2253. Self Defense and Use of Force. A course with emphasis placed on physical conditioning, evaluation and exercises; falling techniques; holding, escape, defense techniques; defenses against armed attacks, including club, gun and knife attacks; take-down techniques, wristlock/come-along hold, and baton techniques. Laws and regulations pertaining to the use of force will be covered. 2 semester hours credit. [O]

CJD 2254. First Responder to Medical Emergencies. A course to acquaint the officer with effective medical procedures and life saving techniques for handling emergency illness or injuries should he/she be the first to arrive at a scene where such aid is required. Practical exercises are an important aspect of this course and must be successfully performed. 2 semester hours credit. [O]

CJD 2310. Line Supervision. A course designed to provide students with the knowledge and skills needed to function effectively as supervisors. Major topic areas include interpersonal communications, principles of organization and management, human relations, planning and development, policy formulation and budgeting. 3 semester hours credit. [O]

CJD 2320. Middle Management. A course designed for the law enforcement or correctional officer in a management or supervisory position. The course strengthens basic skills and develops leadership skills which are necessary for successful performance in the criminal justice field. 3 semester hours credit. [O]

CJD 2330. Developing and Maintaining a Sound Organization. A course designed to acquaint the criminal justice officer with the general concepts and principles of organization and organizational structures. 2 semester hours credit. [O]

CJD 2331. Planning the Effective Use of Financial Resources. This course was designed to acquaint the criminal justice officer with general financial concepts and terms, financial systems, budgets, and the effective uses of financial information within a criminal justice agency. An eight-hour practicum has been provided in this course to allow the students to actually develop and justify a working budget. 2 semester hours credit. [O]

CJD 2332. Building and Maintaining a Sound Behavior Climate. A course designed to acquaint the criminal justice officer with behavioral concepts, management techniques, motivational techniques, and the role of communication in criminal justice administration. 2 semester hours credit. [O]

CJD 2467. Counseling and Communication Skills. A course designed to facilitate student appreciation of the importance of communications and counseling skills. It develops working level competence in offender profiling, case problem solving, staff working relationships and the art of listening. FDLE - CISTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2468. Youthful Offender Program. A course designed to provide the officer with increased knowledge and experience related to youthful offenders. General concepts, staff-inmate relationships, treatment of discipline strategies and youthful offender supervisory skills will be presented. FDLE - CISTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]
CJD 2470. Emergency Preparedness. A course designed to introduce correctional officers to the concept and key components of emergency situations; effective leadership to prevent such occurrences; and internal factors both inside and outside correctional institutions which affect emergency situations. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2471. Discipline and Special Confinement Techniques. A course designed to aid the correctional officer in effectively and properly performing the task requirements inherent in a confinement environment. The student will perform many of these tasks in practical exercises to demonstrate proficiency. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2476. Fire Fighting. A course designed to provide officers with first-stage firefighting capabilities and thereby reduce the dangers of death and injury in correctional settings. Emphasis will be placed on rescue techniques, the use of breathing equipment, evacuation of prisoners. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2477. Proficiency Skills Enhancement for Correctional Officers. A course designed to refresh and improve the skills of the correctional officer by providing a review and enhancement of identified critical basic skills. Time restrictions necessitate a review of concepts rather than practical exercises. Officers are expected to practice the skills within their agencies. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2481. School Resource Officer Training. A course designed to teach the knowledge, skills and attitudes that will enable a police officer to become a successful School Resource Officer. 2 semester hours credit. [O]

CJD 2501. Instructor Techniques. A course designed to enhance the criminal justice officers' knowledge, skills and ability to provide efficient and effective training to fellow criminal justice personnel in skill or subject areas dictated by local need. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 4 semester hours credit. [O]

CJD 2602. Narcotic Identification and Investigation. A course which follows the curricula developed by the U.S. Drug Enforcement Administration for teaching criminal justice officers essential concepts and techniques in the area of drug and drug-related crimes. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2603. Sex Crimes Investigation. A course providing an overview of sex crimes investigation for the patrol officer and investigator with limited experience in this field. Provides an understanding of the problematic, legal, investigative and evidentiary aspects of sex crimes. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2604. Injury and Death Investigations. A course giving the patrol officer and investigator with limited experience in injury and death investigation a general insight into investigative, legal and evidentiary compounds. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2626. Hostage Negotiations. This course is designed to qualify in-service law enforcement and correctional officers and support personnel in the area of hostage negotiations; to include: introduction to the problem, types of hostage situations, formulation of policy, hostage negotiations principles, communications principles, intelligence gathering, abnormal behavior and participant performance exercise. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2630. Firearms Instructor. A course presenting skills necessary to become firearms instructors. Emphasis will be on instructor techniques methodology, safety principles, firing range conduct, revolver and shotgun nomenclature, analysis of common shooter dysfunctions and lesson plan construction. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2632. Field Training Officer. A course designed to introduce the criminal justice student to all aspects of field training and evaluation programs to include adult learning and instruction, evaluation, role responsibilities and characteristics of the Field Training Officer (FTO), communications techniques, counseling techniques, legal and ethical issues and human motivation. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2647. Organized Crime. Designed for the patrol officer and investigator, this course covers specific techniques of recognition, classification and effective investigation of organized crime. This course is intended for the patrol officer and investigator. 2 semester hours credit. [O]

CJD 2649. White Collar Crime. A study of criminal behavior not usually associated with the traditional crime, crimes committed by a person of respectability and high social status in the course of his occupational. This course will include a survey of various typologies, causation factors, individual self concepts and rationale. 2 semester hours credit. [O]

CJD 2650. Forensic Photography. A course covering practical exercises to allow students adequate time to demonstrate their capability to produce, process and prepare photographs suitable for court presentation. This course is for the patrol officer and for law enforcement and correctional investigators. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2661. Special Tactical Problems. A course providing an overview of special tactical problems for officers. It will provide the trainee with a working knowledge of special problems faced by law enforcement or corrections to include natural and man-made disorders. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2663. Writing and Reviewing Reports. A course providing a focused review and practice of the basic elements necessary for effective writing in any situation or any type of report. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2665 Computer Application. This is a course designed to introduce the employee to computer applications in criminal justice and to the process of customizing prgorams for specific agency use. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2677. Drug Abuse Awareness and Education. A course providing the informed criminal justice officer with the methodologies necessary to educate members of the community. This is achieved through various modes of presentation on current and critical issues relevant to drug abuse FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2680 Criminal Law. A course in the theory, purpose and history of criminal law. General criminal procedures, including arrest and trial, appeal, punishment and release, search and seizure and the rights and duties of law officers. 2 semester hours credit. [O]

CJD 2681. Case Preparation and Court Presentation. A study of the fundamentals of criminal case preparation and court presentation for the law enforcement and/or correctional officer, to include case files, pretrial discovery, depositions, plea bargaining, court testimony, moot court, post adjudication responsibilities, case studies and a practical exercise. FDLE - CJSTC Advanced Course. For Criminal Justice Personnel Only. 2 semester hours credit. [O]

CJD 2691. Stress Awareness and Resolution. A course designed to provide the student with an overview and awareness of stress and its resolution, to include: identification of various types of stress, the results of stress, psychological methods of controlling stress, case study analysis, and spouse
A discussion of police problems and CJE 2500. Police Operations. problems. 2 semester hours credit. [O]

including information and case studies on specific domestic and social officer with an awareness of domestic intervention symptoms and techniques, including and involvement.  FDLE - CJSTC Advanced Course.  For Criminal Justice Personnel Only.  2 semester hours credit. [O]

CJE 2500. Police Operations. A discussion of police problems and responsibilities, including the distribution of personnel and materials, supervision of forces, operating procedures, communications and records, highway safety and traffic control, disasters and disturbances, and the relationship between the police and the public.  3 semester hours credit. [D]

CJL 2100 Criminal Law. A course in the theory, purpose and history of criminal law. General criminal procedures, including arrest and trial, appeal, punishment and release, search and seizure and the rights and duties of law officers.  3 semester hours credit. [D]

CJL 2130 Criminal Evidence. An analysis of courtroom procedures, presentation of evidence and judicial decisions. Rules of evidence and the roles of judge, prosecutor, defense and jury will be discussed.  3 semester hours credit. [D]

CJL 2062. Constitutional Law for Criminal Justice. A study of the federal and the various state constitutions. An in-depth analysis of those constitutional amendments having a bearing on contemporary criminal justice issues.  3 semester hours credit. [D]

CJT 2100. Criminal Investigations. A course to provide education theory in the fundamentals of investigation and the techniques of collection, preservation and transportation of evidence.  3 semester hours credit. [D]

CJT 2430 Traffic Accident Investigation and Enforcement. An in-depth study of traffic accident investigative techniques. Includes fact-gathering methodology, collection and preservation of evidence, case preparation and reporting techniques.  3 semester hours credit. [O]

CLP 2140. Abnormal Psychology. A course which concentrates on the description, causes and treatment of behavioral disorders as seen from the viewpoint of the major theoretical models of abnormal behavior. Prerequisite: PSY 2012.  3 semester hours credit. [O]

COP 2000. Introduction to Computer Programming. A beginning course in computer programming, with an emphasis on the problem-solving process, program analysis, design decisions, and creative algorithm development. Topics will include organization and structure of computer programs; interface design techniques; algorithm design and development; a survey of programming paradigms; syntax and semantics of specific statements in one or more representative computer languages. Prerequisite: Must be eligible to enroll in MAC 1105 or higher mathematics course. The prerequisite may be waived by consent of department for students with previous appropriate coursework or work experience. Contact the course instructor for details. 3 semester hours credit. [D]

COP 2224. C++ Programming. A survey of the C++ programming language, with special attention to language features that support an object-oriented approach to programming. Topics include a review of basic programming control structures, input/output operations, and mathematical and logical operations; data types and basic data structures including arrays, records, files, classes, and pointers; functions; parameters; language extensibility using libraries. Prerequisite: COP 2000. The prerequisite may be waived by consent of department for students with previous appropriate coursework or work experience. Contact the course instructor for details. 3 semester hours credit. [D]

COP 2535. Introduction to Data Structures and Algorithms. A third course in computer programming. Topics will include standard data structures, such as lists, queues, stacks, trees, graphs; associated algorithms; and an introduction to algorithm analysis techniques. A comparison of pointer-based implementations and array-based implementations will be made. Prerequisite: COP 2224. Prerequisite may be waived by consent of department for students with previous appropriate coursework or work experience. Contact the course instructor for details. 3 semester hours credit. [D]

COP 2800. Java Programming. This course provides an introduction to the Java programming language. Topics include basic operations, controls, data, objects, graphics, applets, method abstraction, class abstraction, and event handling. Prerequisite: COP 2000 or or consent of department. 3 semester hours credit. [D]

DEP 2004. Human Growth and Development. A course in which biophysical, cognitive and psychosocial development throughout the life span (from conception to death) will be considered, as well as problems specific to each stage. This course is required for pre-nursing students. The course carries division elective credit only. Prerequisite: PSY 2012. Completion of DEP2102 is strongly recommended as preparation for this course.  3 semester hours credit. [D]

DEP 2102. Child Psychology. A course with application to an objective study of the preadolescent child. Preadolescent physical, psychological, and social development are studied. Special problems of child training in the family and of social adjustment at school are discussed. Prerequisite: PSY 2012.  3 semester hours credit. [D]

ECO 2013. Macroeconomics. An introduction to economics and the economy; national income, employment, and fiscal policy; money, banking, and monetary policy; problems and controversies in macroeconomics. 3 semester hours credit. [D]

ECO 2023. Microeconomics. Microeconomic theories of product and resource markets, government and current economic problems, international economics and the world economy. 3 semester hours credit. [D]

EDF 1005. Introduction to Education. A course designed as an introduction to American education. It includes a study of the fundamental principles, historical views, curriculum, pupil population, educative processes, teaching as a profession, and 20 hours of field experience. 3 semester hours credit. [A]

EDF 3214. Human Development and Learning. This course is designed to cover myriad learning theories as they apply to student development, learning styles, learning ability as well as disabilities. Students will be afforded the opportunity to explore varying ideologies relative to intelligence and intellectual assessment. Additionally, students will be required to arrange visits totaling at least 15 hours to area schools to observe teaching and learning styles, the interactions between student and teacher, and intervention techniques. Prerequisite: PSY 2012.  3 semester hours credit. [A]

EDG 2701 Teaching Diverse Populations A course that provides the student with the opportunity to explore personal values and attitudes toward diverse populations. Designed for the prospective educator, the theoretical component will examine the issues of teaching diverse learners. Attention will be given to teaching about ethnicity in a pluralistic society. Fifteen hours of field experience and examination of educational materials will enhance the student’s understanding of multi-culturalism. 3 semester hours credit. [A]
EDG 4410 Classroom Management & Communication. This course covers basic skills and knowledge for creating a learning environment that encourages positive social interaction and effective communication among members of the learning community. The course emphasizes attitudes, language patterns, values, and behaviors. The course also includes methods and strategies for consulting with other school professionals and parents. Prerequisite: EDF 3214. 3 semester hours credit. [A]

EDF 4430 Measurement & Evaluation in the Classroom. This course helps you obtain skills relevant to the development and use of classroom assessments. Course content addresses four themes: (1) How to establish a framework for assessing your students, (2) How to develop and score your own assessments, (3) How to interpret and use internally and externally developed assessments, and (4) How to communicate assessment results to others. Each week, our class will include presentation and application components. The presentation component involves lectures and demonstrations related to classroom assessment. The application components involve small groups within the class where you apply what you are learning and share your applications with others in the class. You will also apply these skills through a series of projects. These projects focus on designing and using various assessment tools such as performance assessments, portfolios, and written tests. Focus is on the assessment of skills related to the Florida Sunshine Standards. Significant attention is given to evaluating validity evidence related to external measures and those you develop, and on techniques that facilitate the generalization of what you observe to relevant performances not measured by the assessments. 3 semester hours credit. [A]

EDM 3001. Introduction to Middle School. This course is designed for the student an introduction to the modern middle school. It will include the philosophy and practice of the ideal middle school. The development of the middle school will be studied. 3 semester credit hours. [A]

EET 1003. Introduction to Electronics. This course is designated for a telecommunication student. It provides an overview of electronics to acquaint the student with the principles upon which modern electronic devices operate. The course includes an introduction to the basic concepts of electricity and magnetism, electronic circuits and digital electronics. 3 semester hours credit. [D]

EET 1015C. Direct Current Circuits. A fundamental course including series, parallel and complex circuit analysis, Ohms Law, meters, conductors, insulators, resistors, batteries, and magnetism. The use and understanding of test equipment for circuit analysis is stressed. Six hours lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [D]

EET 1025C. Alternating Current Circuits. A study of A.C. fundamentals, inductive circuits, capacitive circuits, complex numbers, resonance, and filters. Theoretical circuit analysis and circuit testing by the use of meters and oscilloscopes are stressed. Prerequisite: EET 1015C. Six hours lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [D]

EET 1371. Telecommunications Installation Technician. This course prepares students for employment in the telecommunication technician field. Students receive installation training, splicing and activation of broad band and telephone installation. First Aid, CPR and Pole climbing is included. This is a seven week course, five days per week ending with a certificate in this area. Combination lecture/lab. 8 semester hours credit. [D]

EET 1607C. Surface Mount Technology/Through Hole Assembly and Repair. A study of the techniques involved in surface-mount technology (SMT) and through-hole printed circuit board assembly and repair. The practical application of equipment and tools is stressed. Six hours lecture/lab per week. $6 lab fee. 4 semester hours credit. [O]

EET 2104C. Electronic Devices. A study of semiconductor devices and their application in electronic circuits. Included is the study of the structure of matter, diodes, transistors, biasing, FET’S, PNPN’S, and other devices. Prerequisite: EET 1025C. Six hours lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [O]

EET 2119C. Analog Circuits. A study of half-wave power supplies and vacuum tube, transistor and FET cascaded amplifiers, including coupling methods, frequency considerations, stabilization and feedback. Prerequisite: EET 2104C. Six hour lecture/laboratory per week. $6 lab fee. 4 semester hours credit. [O]

EET 2322C. Fundamentals of Analog Communications. A study of the fundamentals of communication, including AM and FM receivers and transmitters comprised of both discrete and integrated circuits. Involves a practical hands-on application of troubleshooting techniques to analyze and isolate faults. Six hours lecture/lab per week. Prerequisite: Consent of instructor. $6 lab fee. 4 semester hours credit. [O]

EET 2365C. Digital Communications. This course is designated for a telecommunication student. It emphasizes the equipment, systems and software involved in the sending and receiving of data over modern communications. 4 semester hours credit [D]

EET 2751C. Telephone Switching Theory. This course is designated for a telecommunication student. It covers the fundamentals in digital switching systems. It is designed to prepare the student for advanced courses in state-of-the-art telecommunications. 3 semester hours credit.

EGS 2110C. Engineering Graphics. A basic introductory course covering the use of drafting instruments, lettering, technical sketching, geometric construction, orthographic projections, auxiliary and sectional views, isometric and oblique drawing, and working drawings. Five hours lecture/laboratory per week. $5 lab fee. Prerequisite: MAC 1105 or consent of the department. 3 semester hours credit. [D]

EME 2040 Introduction to Educational Technology. Technology for Teachers will provide participants with knowledge of and hands-on experience with integrating technology into classroom instructional activities. Special focus will be placed on the integration of computer-based productivity tools for instruction and instructional support tasks. 3 semester hours credit. [A]

EME 3410. Integrating Technology in the Classroom. This course is designed for pre-service and practicing middle school teachers. It includes the use of innovative computer software and graphing calculators for students to experience learning with technology at the middle and secondary school levels. The use and integration of software, electronic spreadsheets, data analysis, and instructional software will be studied from a problem solving perspective. Students will also create or use programs on a graphing calculator. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and is required for certification. A programmable graphing calculator will be required for this course. Prerequisite: EME 2040 or consent of the department. 3 semester hours credit. [A]

EMS 1159C. Emergency Medical Technician. A basic course designed to provide the student with the knowledge and basic skills necessary to provide effective emergency care of the sick and injured. Theoretical instruction and selected clinical experiences are provided. 11 semester hours credit. [O]

EMS 2231. Paramedic I. The introduction of advanced life support skills of definitive airway management and intravenous therapy. Also includes sections on foundations, airway, patient assessment, and trauma. Lab included. 12 semester hours credit. [O]

EMS 2232. Paramedic II. A continuation of EMS 2231 with emphasis on cardiology and advanced cardiac life support. Also includes sections on medicine, special patients, assessment-based management and operations. Lab included. 15 semester hours credit. [O]
EMS 2233. Paramedic III. Culmination of paramedic program in which previous education and training are reviewed and applied to simulated situations. Completion of course leads to eligibility for paramedic licensure examination. Lab included. 15 semester hour. [O]

ENC 0003. Applied English. This course helps develop written language skills including basic sentence structure, paragraph organization, usage, punctuation, capitalization and grammatical concepts. This four-hour non-credit course is designed for students who do not possess entry skills for college prep writing as indicated by ACT or FCE-LPT scores: students scoring from 20-46 on the CPT, 0 to 8 on the Enhanced ACT or below 9 on the TABE. Students may repeat this course as needed to meet entry requirements for college prep writing. Students who make a D in this course will be allowed to advance to ENC 0004. This course does not earn college credit but counts 4 semester hours for load purposes. [P]

ENC 0004. College Preparatory Writing I. A course designed to remediate severe problems in writing skills. Students who fail to make a score of 17 on the Enhanced ACT or a score of 83 on the FCE-LPST must make a grade of “C” in this course and pass an exit exam before registering for ENC 1101. This course does not earn college credit but counts 4 semester hours for load purposes. [P]

ENC 1101. Communications Skills I. A course in English composition designed to prepare a student to write successfully throughout his four-year college career. Theme assignments deal with narrative, descriptive, expository, and argumentative writing. Brief oral presentations are required. A documented essay is required. Gordon Rule: 8,000 words. Prerequisite: Acceptable placement scores in writing or a grade of “C” in ENC 0004 or ENC 0005 and reading (or a grade of “C” in REA 0004). A grade of C or higher must be earned to advance to a higher level English course or to use this course as part of the general education requirements in English. 4 semester hours credit. [D]

ENC 1102. Communications Skills II. A course in English Composition, the second half of the sequence begun with ENC 1101. This second semester is concerned primarily with themes about literature, based on reading of short stories, plays, and poetry. Gordon Rule: 8,000 words. Brief oral presentations are required. Prerequisite: A grade of “C” in ENC 1101 and an acceptable placement score in reading or REA 1205. A “C” grade or higher must be earned to advance to a higher level English or other Gordon Rule course or to use this course as part of the general education requirements in English. 4 semester hours credit. [D]

ENC 1133. Research Writing. A course designed to increase proficiency in effective methods of library research and in writing the documented essay. Gordon Rule: 2,000 words Prerequisite: A grade of “C” in ENC 1101-1102. 1 semester hour credit. [A]

ENC 1153. Writing for Technical Students. This course prepares students to communicate information in the workplace. It will prepare the student to compose and organize all types of reports, prepare technical documents, and write various types of letters using various computer applications. Good sentence structure and mechanics will be emphasized. This course is for certificate or specified A.S. degree programs. It does not fulfill the Gordon Rule requirement. Prerequisite: CGS 1060. 3 semester hours credit. [O]

ENC 2110. Reading and Writing CLAST Review. A course designed for students who must take the College Level Academic Skills Test (CLAST). The reading skills that will be emphasized are literal and critical comprehension. Writing skills that will be reviewed are word choice, sentence structure, grammar, spelling, punctuation, and the process of writing an essay. Prerequisites: ENC 1101 and 1102. The course is mandatory for all students who register for the CLAST with an overall grade point average below 3.0. Institutional credit is offered, but this course does not apply toward satisfying general education requirements in communications. 1 semester hour credit. [A]

ENC 2110A. Reading and Writing CLAST Review I. A course designed for students who must retake the College Level Academic Skills Test (CLAST), which includes three English subtests: reading, writing and essay. The student will study the skills needed to pass the subtest(s) failed in the first attempt. Institutional credit is offered but this course does not apply toward satisfying general education requirements in communications. Prerequisites: Gordon Rule classes and ENC 2110. 1 semester hour credit. [A]

ENC 2110B. Reading and Writing CLAST Review II. A course designed for students who must retake the College Level Academic Skills Test (CLAST), which includes three English subtests: reading, writing and essay. The student will study the skills needed to pass the subtest(s) failed in the second attempt. Institutional credit is offered but this course does not apply toward satisfying general education requirements in communications. Prerequisites: Gordon Rule classes and ENC 2110 and 2110A. 1 semester hour credit. [A]

ENC 2110C. Reading and Writing CLAST Review III. A course designed for students who must retake the College Level Academic Skills Test (CLAST), which includes three English subtests: reading, writing and essay. The student will study the skills needed to pass the subtest(s) failed in the third attempt. Institutional credit is offered but this course does not apply toward satisfying general education requirements in communications. Prerequisites: Gordon Rule classes and ENC 2110, ENC 2110A and ENC 2110B. 1 semester hour credit. [A]

ENC 2210. Technical Writing. A course designed to prepare technicians, professionals and administrators to communicate information concerning their specialized skills. It will prepare the student to compose and organize all types of reports, prepare technical documents, and write various types of letters. Prerequisite: Grades of “C” in ENC 1101-1102. Gordon Rule: 6,000 words. 3 semester hours credit. [D]

ENC/MAT 2905. Communication/Mathematics Through Tutoring. A course to teach the general communication skills needed for successfully tutoring in an academic setting, to teach general methods of tutoring and to teach the tutoring techniques needed in specific courses. Teacher-tutor seminars, teacher-tutor conferences, and formal instruction will supplement the extensive tutoring experiences. The number of hours of credit varies from 1 to 3 hours depending upon the number of hours of tutoring: 1 credit, 25 hours; 2 credits, 38 hours; and 3 credits, 50 hours. Requires department consent. May be repeated for a maximum of four semesters. [D]

ENL 2012. English Literature I. A survey of English literature and authors and philosophy of the Old English, Middle English, Restoration and Neoclassical periods, including Beowulf, ballads, Chaucer, Shakespeare, Donne, Milton, Swift and Pope. Prerequisites: Grades of “C” or better in ENC 1101-1102. Gordon Rule: 6,000 words. 3 semester hours credit. [D]

ENL 2022. English Literature II. A survey of English literature and authors and philosophy of the Romantic, Victorian, and Twentieth Century periods, including Blake, Burns, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Hopkins, Hardy, Conrad, Yeats, Joyce, Lawrence, Eliot and Thomas. Prerequisites: Grades of “C” or better in ENC 1101-1102. Gordon Rule: 6,000 words. 3 semester hours credit. [A]

ETD 2320C. Introduction to Computer Aided Design-Drafting (CADD). This course emphasizes the use of computers for engineering design and drafting. Stressed will be the utilization of hardware and software to produce engineering and other drawings and menus. This course serves all areas which require methods of drafting, design, and engineering, such as electrical-electronic, civil, mechanical and structural, architecture, mapping, landscaping, facilities planning, interior design, theater set and lighting design, museum display design, graphic arts and archaeology. Five hours lecture/lab per week. Prerequisite: EGS 2110 or consent of instructor. $6 lab fee. 3 semester hours credit. [D]

ETD 2350C. Advanced CADD. This course emphasizes advanced CADD functions: isometrics, the Third Dimension, XYZ point filters, user coordinate systems, 3D modeling, REV/SURF, RULE/SURF, EDGESURF and 3D

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MESH commands; creating new/customizing menus, and AutoLISP programming. Prerequisite: ETD 2320C or consent of instructor. 3 semester hours. [D]

FFP 1301. Fire Stream Hydraulics. A study of pertinent properties of water, distribution of pressures in dynamic and static systems, friction loss in hoses and pipes and factors which influence it. Approximation methods for quick calculation are given, as well as the more technical computations. Effort is directed toward giving an understanding of how good fire streams are developed. 3 semester hours credit. [O]

FFP 1302. Fire Apparatus and Equipment. This course covers the national, state and local emergency vehicle driving laws. Emphasis is placed on safe driving techniques and proper use of equipment. 3 semester hours credit. [O]

FFP 1505. Fire Inspection Practices. A course on structure and organization of fire prevention, organizations, conducting inspections, interpreting and applying code regulations. A study of procedures and techniques of fire prevention, including surveying and mapping, recognition and elimination of fire hazards and fire risk analysis as applied to municipal and industrial occupancies. 3 semester hours credit. [O]

FFP 1510. Principles of Fire Prevention and Fire Related Laws, Codes and Ordinances. A study including the recognition and categorization of fire hazards. It emphasizes methods of developing effective fire prevention programs for large and small communities, industries, and institutions. The legal basis for fire protection in effect throughout Florida and the application of state, county and municipal legislation as well as other sources of authoritative guidance will be studied. 3 semester hours credit. [O]

FFP 1521. Blue Print Reading and Plans Examination. A course using code standard and inspection techniques learned previously, to review building plans to find errors and omissions, make corrections according to code, and identify where each item is located in the code. 3 semester hours credit. [O]

FFP 1540. Fire Protection Systems and Devices. A study of fixed and portable systems for detecting, reporting and extinguishing fires. Comparison is made between the value of detection and the value of automatic extinguishing systems. Study is made of the factors which influence the choice of one of several systems for a given occupancy and the value of each type system. Restoration after use and routine maintenance are stressed. 3 semester hours credit. [O]

FFP 1610. Fire Cause and Arson Detection. A unit emphasizing the investigation of fires for determination of the source of ignition and first fuel, point of origin, direction and rate of spread and whether the cause was accidental or illegal. Florida arson laws are studied along with procedures for ensuring the admissibility of any evidence found at the scene of the fires, including methods of questioning the witnesses, interviewing, interrogation, and case preparation, with stress on recognition of cause and evidence. 3 semester hours credit. [O]

FFP 1741. Fire Science Course Design. This course is designed to enhance instructor techniques in Curriculum Development. The student will develop objectives, prepare an effective lesson plan and present an active training session. 3 semester hours credit. [O]

FFP 2120. Building Construction for Fire Protection. This course introduces the student to building codes in relation to fire protection. Standards to eliminate fire problems prior to construction are emphasized. The relationship between the building inspection and fire protection agencies, plus fire extinguishing techniques in all types of building construction, are discussed. 3 semester hours credit. [O]

FFP 2401 Hazardous Materials I. A study of the understanding of the basic principles involved in the recognition of materials which are hazardous because of combustibility, toxicity, reactivity, or other properties. A study is made of pyrophoric metals, hypergolics and cryogenic, and insecticides. Emphasis is placed upon ways in which hazardous materials can be recognized in the field and study is made of sources of special information relating to safe handling of the materials and extinguishing of fires in which they are involved. 3 semester hours credit. [O]

FFP 2402. Hazardous Materials II. Further study of the chemical and physical properties of various forms of matter and their possible interaction relating to storage, transportation, and handling. Includes flammable liquids, combustible solids, oxidizing corrosives, and radioactive materials. 3 semester hours credit. [O]

FFP 2706. Public Information Officer. This course is a study of what public relations is and how a fire department can utilize positive public relations to benefit the organization and the public. The student will demonstrate techniques to bridge public relations with the community. This course describes the functions of a public information officer along with the responsibilities the position holds. 3 semester hours credit. [O]

FFP 2720. Company Officer. This course covers the broad concepts of supervision and leadership, enabling students to analyze the kinds of effective leadership-followship needed in the fire services. Roles and attitudes needed in high stress conditions are emphasized. Case studies and individual goal setting are important components of the course. 3 semester hours credit. [O]

FFP 2740. Fire Science Instructor Techniques. A course on principles, procedures, and techniques of teaching, with emphasis on methods of instruction, developing training outlines, use of visual aids, and testing procedures of fire science instructors. 3 semester hours credit. [O]

FFP 2770. Ethical and Legal Issues for Fire Service. This course is a study of the entire spectrum of legal issues facing today’s fire service leaders. Topics include: labor relations, human rights and diversity; conflicts of interest and frameworks for ethical decision making. 3 semester hours credit. [O]

FFP 2780. Fire Department Administration, Management and Supervision. A study of administrative, managerial and supervisory principles as they apply to the fire service. This course is intended for those seeking to participate in upper level organizational activity such as budgeting, cost controls, goal setting, manpower acquisition and distribution, and for those seeking to supervise fire company personnel with emphasis upon leadership traits, training, planning, and company officer responsibilities. 3 semester hours credit. [O]

FFP 2810. Firefighting Strategy and Tactics I. A study of multiple company operations, logistics, strategy, use of mutual aid forces, and conflagration control. Intended for high-ranking officers who may be in command of major fires and other emergencies involving close coordination and maximum use of large amounts of manpower and equipment. Typical tactical situations and case histories will be given. 3 semester hours credit. [O]

FFP 2811. Firefighting Tactics and Strategy II. A study of action plans, command and control, safety, building dynamics, sprinkler operations, fire company operations, and various types of fires. An advanced study intended for high-ranking officers, using state or locally provided scenarios. 3 semester hours credit. [O]

FOS 2201C. Food Service Sanitation and Safety. This course will provide the student with a background in sanitation as it applies to health and the ability to recognize proper sanitation techniques and an explanation of how to implement a sanitation program in his/her food service operation. 2 semester hours credit. [O]

FRE 1120. Elementary French I. The essentials of French, with emphasis on oral expression. Open to students who enter college without any or with only one year of high school French. This course has been designated as an
FRE 1121. Elementary French II. A continuation of FRE 1120, with emphasis on oral and written expression. This course has been designated as an international/diversity course. 4 semester hours credit. [A]

FRE 2200. Intermediate French I. The courses 2200-2201 include the reading of selections from modern prose authors, a review of grammatical principles, and further study of composition and conversation. This course has been designated as an international/diversity course. Prerequisite: FRE 1121 or two years of high school French. 4 semester hours credit. [A]

FRE 2201 Intermediate French II. A continuation of FRE 2200. This course has been designated as an international/diversity course. 4 semester hours credit. [A]

FSS 1002C. Introduction to Hospitality. This course will expose the student to the many different opportunities industry wide, the challenges they may face, trends impacting the industry, future industry issues, guides for educational and professional development. 2 semester hours credit. [O]

FSS 1105. Food Purchasing. This course is an introduction to the selection and procurement system of food and non-food items utilized in the food service industry. 2 semester hours credit. [O]

FSS 1202C. Basic Food Preparation. This course will provide the student with a basic knowledge of fundamental cooking skills as related to cooking methods, use of kitchen equipment, hand tools and smallwares, recipe reading and conversion, weight and measures, basic food costing theories and product identification and usage. 4 semester hours credit. [O]

FSS 1246C. Food Specialty Baking I. This course will provide the student with a basic knowledge of the fundamentals related to baking science. Students will be exposed to baking terminology, equipment operation, ingredients, weights and measures, formulas and storage. 4 semester hours credit. [O]

FSS 1248C. Food Specialty Garde Manger. This course will provide the student with a basic knowledge of fundamental cooking skills as related to Garde Manger, specifically: cold food preparation, hors d’ oeuvres, canapés, charcuterie, curing, smoking, preservation methods, sorbets, granites, ice creams, display platters and buffet set up. 2 semester hours credit. [O]

FSS 2224C. Advanced Food Preparation. This course will provide the student with a thorough knowledge of fundamental cooking skills as related to meat cookery including beef, pork, veal and game as well as poultry and fowl, seafood including fin-fish and shellfish, and breakfast cookery. 4 semester hours credit. [O]

FSS 2240C. Food Specialties: World Cuisine. This course will provide the student with a basic knowledge of fundamental cooking skills as related to cuisines throughout the world. Emphasis will be placed on product identification and use for different regions of the world along with relation to culture and local customs. 3 semester hours credit. [O]

FSS 2247L. Food Specialties IV: Pastry Specialties. This course will provide the student with a basic knowledge of fundamentals related to baking science. Students will be exposed to baking terminology, equipment operation, ingredients, weights and measures, formulas and storage. 2 semester hours credit. [O]

FSS 2380. Culinary Management Practicum I. This course will review and support previously learned skills as well as introduce new ones. Emphasis will be placed on quality food preparation in an operational food service facility. Students will be expected to operate efficiently and effectively in all kitchen stations. 4 semester hours credit. [O]

FSS 2381. Culinary Management Practicum II. This course will review and support previously learned skills as well as introduce new ones. Emphasis will be placed on management principals in both the front and back of the house environments. Students will gain valuable management experience by hands on management in an operational food service facility. 4 semester hours credit. [O]

FSS 2382L. Practical Exam. This course will serve as a capstone course integrating all competencies attained. Students will be encouraged to elaborate on previously learned theories to produced food items on a more “up-scale” basis with attention focused on menu planning, cooking techniques, plate presentation, dish originality, costs and marking. 1 semester hours credit. [O]

G

GEA 2001. World Geography I. A study of the relationship between human activities and natural environment. A regional-cultural approach is used and effort is made to correlate the course content with the other social sciences. Credit will be granted without taking 2002, but the sequence is recommended. This course has been designated as an international/diversity course. 3 semester hours credit. [D]

GEA 2002. World Geography II. The second half of the course sequence 2001-2002. GEA 2001 is not a prerequisite, but the sequence is recommended. This course has been designated as an international/diversity course. 3 semester hours credit. [D]

GEB 1941. Internship in Business. Supervised, practical work experience in an appropriate business, industry, government agency, or institution which relates to a Business-related field of study. A minimum of 45 clock hours is required for each semester hour of credit earned. Prerequisites: A minimum of 15 semester hours of credit earned toward a degree or certificate in Accounting, Economics, or Business Administration and Management; completion of an internship application; interview with the coordinator of the internship program, and the availability of a training slot. 1-3 semester hours credit. May be repeated up to a total of 3 hours credit. [D]

GEB 2949. Cooperative Education in Business. Supervised, practical work experience in an appropriate business, industry, government agency, or institution which relates to the Business field of study. A minimum of 60 clock hours is required for each semester hour of credit earned. Prerequisites: A minimum of 35 semester hours of credit earned toward a degree in Business Administration, Accounting, or Economics; completion of a cooperative education application; interview with the coordinator of the cooperative education program; and the availability of a training slot. 1-3 semester hours credit. May be repeated up to a total of 3 hours credit. [D]

GLY 1001. Introduction to Earth Science. A general education course involving an introductory study of geology, oceanography, and meteorology. Demonstrations and practical applications are emphasized. Cannot be taken to satisfy the general education requirement if GLY 1010 has already been taken. 3 semester hours credit. [D]

GLY 1010. Introduction to Physical Geology. An introductory geology course which includes a comprehensive study of the earth's physical processes and properties, with emphasis on understanding the scientific theories behind the geological principles. The course covers the origin, structure, and composition of the earth; the physical processes acting upon the earth; and the development of the continents and ocean basins through time. Cannot be taken by students who have taken GLY 1001. 3 semester hours credit. [D]

GRA 1100C. Beginning Computer Graphics. An introduction to Photoshop 5.0 through guided instruction and practical use. Concepts taught in this course
H

HFT 1213C. Food Service Supervision. This course introduces the student to the importance of human resources functions in an organization and the responsibilities of management. The course will offer management techniques that will aid students in solving the problems that are likely to encounter in the workplace. 2 semester hours credit. [O]

HFT 1860. Beverage Management. This course will provide the student with a working knowledge of beverage management for the food service industry. Students will develop an understanding of beer, wine, and liquor production methods along with inventory control and basic bartending skills. 2 semester hours credit. [O]

HFT 2264C. Banquet and Convention Management. This course will familiarize the students with the necessary theories to perform both on and off-site events. Emphasis will be placed on banquet and à la carte style service, specialty foods, beverage service, and legal issues. 2 semester hours credit. [O]

HFT 2840C. Dining Room Operations. Types of dining room and beverage service techniques found in the hospitality industry. Lab Fee. 2 semester hours credit. [O]

HIS 1930-1931-2932-2933. Current Affairs. A study of events of the world today, based on coverage in current periodicals, radio and television. Emphasis is placed on the development of informal judgments about public affairs by the student. Open to all students for a maximum of four semesters. A student may pursue only one Current Affairs course during a given semester unless special consent is given by the department. 1 semester hour credit. [A]

HIS 2955. Studies Abroad in Civilization. A course consisting of seminars and travel. Pretravel seminars establish a foundation for critically examining art, architecture, literature and music in relation to significant historical, philosophical and religious currents in European culture. Prerequisite: Consent of the college. 3 semester hours credit. [A]

HFT 1213. Food Service Supervision. This course introduces the student to the importance of human resources functions in an organization and the responsibilities of management. The course will offer management techniques that will aid students in solving the problems that are likely to encounter in the workplace. 2 semester hours credit. [D]

HFT 2840C. Dining Room Operations. This course is designed to prepare students to analyze words structurally, to spell and pronounce medical terms accurately and to understand certain word elements related to anatomy, physiology and selected disease processes. 3 semester hours credit. [D]

HST 1531. Medical Terminology. This course is designed to provide a basis for understanding and utilizing basic principles of medical word building. The course is designed to prepare students to analyze words structurally, to spell and pronounce medical terms accurately and to understand certain word elements related to anatomy, physiology and selected disease processes. 3 semester hours credit. [D]

HST 2400. Standard First Aid. The course provides knowledge about what to do in case of a medical emergency before a medical team arrives. Students will learn principles of care and protection based on life saving measures in the treatment of traumatic injuries, epidemic diseases, spread of disease and injury to others. Also included are preventing hazardous or crippling complications of injuries, alleviating suffering by comforting the victim, and preventing emotional complications. $5 Lab Fee. 3 semester hours credit. [D]

HUM 2212. The Humanities. An integrated course designed to increase the student’s understanding and appreciation of great and vital ideas in western culture through the study of representative materials in art, music, literature, and philosophy. HUM 2212 deals primarily with our ancient, medieval and renaissance cultural heritage. Not open to students who have credit in HUM 2216. Prerequisite: Grades of “C” in ENC 1101-1102. 3 semester hours credit. [D]

HUM 2216. The Humanities with Writing. An integrated course designed to increase the student’s understanding and appreciation of great and vital ideas in western culture through the study of representative materials in art, music, literature, and philosophy. HUM 2216 deals primarily with our ancient, medieval and renaissance cultural heritage. Gordon Rule: 8,000 words. Not open to students who have credit in HUM 2212. Prerequisites: Grades of “C” in ENC 1101-1102. 4 semester hours credit. [D]

HUM 2230. The Humanities. An integrated course designed to increase the student’s understanding and appreciation of great and vital ideas in western culture through the study of representative materials in art, music, literature, and philosophy. HUM 2230 deals primarily with our cultural heritage from the baroque, revolutionary and modern periods. Not open to students who have credit in HUM 2233. Prerequisites: Grades of “C” in ENC 1101-1102. 3 semester hours credit. [D]

HUM 2233. The Humanities with Writing. An integrated course designed to increase the student’s understanding and appreciation of great and vital ideas in western culture through the study of representative materials in art, music, literature, and philosophy. HUM 2233 deals primarily with our cultural heritage from the baroque, revolutionary and modern periods. Gordon Rule: 8,000 words. Not open to students who have credit in HUM 2230. Prerequisites: Grades of “C” in ENC 1101-1102. 4 semester hours credit. [D]

HUM 2740. European Study in the Humanities. This course consists of seminars and travel. Pre-travel seminars establish a foundation for critically examining art, architecture, literature and music in relation to significant historical, philosophical and religious currents in European culture. Prerequisite: Consent of the college. 3 semester hours credit. [A]

HUN 1201. Elements of Nutrition. A basic course which discusses the social and natural environmental factors which influence personal nutrition. Major topics included are digestion, absorption and metabolism of carbohydrates, fats and protein; the known functions of the major vitamins and minerals; and nutritional needs throughout the life cycle. 3 semester hours credit. [D]
MAC 1105. College Algebra. This course is primarily a conceptual study of functions and graphs, their applications, and of systems of equations and inequalities. Linear, quadratic, rational, absolute value, radical, exponential and logarithmic functions will be investigated. A graphing calculator is required for this course. Prerequisites: Successful completion of the equivalent of one year of Algebra I and one year of Algebra II and an acceptable score on a state approved mathematics placement test or a "C" or higher in MAT 1033. A "C" grade or higher must be earned in this course to satisfy part of the general education requirements in mathematics and to advance to a higher mathematics course. 3 semester hours credit. [D]

MAC 1114. Plane Trigonometry. This course deals with the solution of triangles, trigonometric relations, and functions of an angle, logarithms, and complex numbers. Prerequisite: MAC 1105 or MAC 1140, or consent of the department. MAC 1140 may be taken concurrently with MAC 1114. Note: MAC 1140 is a prerequisite for any Calculus course. A "C" grade or higher must be earned in this course to satisfy part of the general education requirements in mathematics and to advance to a higher mathematics course. 3 semester hours credit. [D]

MAC 1140. Precalculus Algebra. This course is for students who will take MAC 1311, Calculus & Analytic Geometry I or MAC 2233 Calculus for Non-Science Majors. Topics for this course include review of algebraic techniques, operations, radicals, exponents, complex numbers, absolute value, linear and quadratic equations and inequalities, exponential and logarithmic functions, simultaneous equations and inequalities, roots of polynomials, matrices, determinants, applications, mathematical proof techniques, mathematical induction, binomial theorem, sequences and series. Prerequisite: Successful completion of the equivalent of one year of Algebra I and one year of Algebra II and an acceptable score on a mathematics placement test or a "C" grade or higher in MAC 1105 or consent of the department. A "C" grade or higher must be earned to advance to a higher level mathematics course or to satisfy part of the education requirements in mathematics. 3 semester hours credit. [D]

MAC 1311. Calculus and Analytic Geometry I. This is a course including analytic geometry of the line and circle, limits, continuity, derivatives and integrals of the algebraic and transcendental functions, applications of integrals to finding area and volume, exponential growth and decay, Riemann sums and the Riemann integral, trapezoidal and Simpson's Rule. Prerequisite: A "C" or higher in MAC 1114 and MAC 1140 or consent of the department. A "C" grade or higher must be earned to advance to a higher level mathematics course or to satisfy part of the general education requirements in mathematics. 5 semester hours credit. [A]

MAC 2233. Calculus for Non-Science Majors. This is a brief calculus course designed primarily for business administration majors and other non-science majors. This course includes: limits, basic techniques of differentiation and integration, word problems with applications to business and economics. A graphing calculator is required. Prerequisite: A "C" grade or higher in MAC 1140 or department consent. A "C" grade or higher must be earned to satisfy part of the general education requirements in mathematics or to advance to a higher mathematics course. 3 semester hours credit. [D]

MAC 2312. Calculus and Analytic Geometry II. This is a course which includes techniques of integration, applications of the integral, polar coordinates, sequences and series, Taylor Series, conic sections, vectors, lines, and planes, and vector-valued functions. Prerequisite: A "C" grade or higher in MAC 1311. A "C" grade or higher must be earned to advance to a higher level mathematics course or to satisfy part of the general education requirements in mathematics. 4 semester hours credit. [A]

MAE 3320 Teaching Methods in Middle School Mathematics. This course is designed for students who are majoring in secondary mathematics education and who will be obtaining teacher certification in grades 6-12. In this course, students learn principles of effective curriculum design and assessment and apply these principles by designing and developing interactive mathematics curriculum projects for middle school students. This course is offered concurrently with MAE 3940, a one credit hour practicum in which students present their projects in middle school classroom environments. This course addresses specific Sunshine State Standards subject matter competencies and pedagogy pertinent to the discipline and required for certification. Prerequisite: MAE 3940. 3 semesters hours credit. [A]

MAE 3320 Teaching Methods in Middle School Mathematics Practicum. This course is designed for students who are majoring in secondary mathematics education and who will be obtaining teacher certification in grades 6-12. This practicum accompanies MAE 3320 and provides students with opportunities to present their interactive curriculum projects to middle school students in local area school districts. Students spend a minimum of 20 school-based hours in the middle school classroom. Project presentations will be coordinated with inservice middle school teachers and their curriculum schedules and needs. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Corequisite: EDF 3214 and MAE 3320 1 semester hour credit. [A]

MAE 3340 Teaching Methods in Secondary School Mathematics. This course is designed for students who are majoring in secondary mathematics education and is offered concurrently with the practicum in teaching secondary mathematics. This course addresses the required instructional methods, techniques, strategies, resources, and assessment considerations for effective teaching of secondary mathematics including the pedagogy of early algebra, geometry, trigonometry and calculus using problems solving, cooperative learning and appropriate technology. This course addresses specific Sunshine State Standards subject matter competencies and pedagogy pertinent to the discipline and required for certification. Prerequisites: Successful completion of MAC 1311 or department consent. A "C" grade or higher must be earned to satisfy part of the general education requirements in mathematics or to advance to a higher mathematics course. 3 semester hours credit. [A]

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State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for certification. Corequisite: MAE 49413 semesters hours credit. [A]

**MAE 4941 Teaching Secondary School Mathematics Practicum.** This course is designed for students who are majoring in secondary mathematics education and who will be obtaining teacher certification in grades 6-12. This practicum accompanies MAE 4330 and provides students with opportunities to present their interactive curriculum projects to secondary school students in local area school districts. Students spend a minimum of 30 school-based hours in the secondary school classroom. Project presentations will be coordinated with in-service secondary school teachers and their curriculum schedules and needs. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Corequisite or Prerequisite: EDF 3214 and MAE 4330. 1 semester hour credit. [A]

**MAE 4943 Seminar in Mathematics Education.** This course is designed to provide students with instructional strategies, planning techniques, evaluation procedures and class management skills. Pre-requisites: all program requirements complete. Co-requisite: MAE 4945. 3 semester hours credit. [A]

**MAE 4945 Student Teaching in Mathematics.** This course requires a teacher candidate to demonstrate pre-professional competencies during a 16 week, full-time internship in a public school approved by the department. Contact hours: a minimum of 35 hours per week for 15 weeks. 10 semesters hours credit. Prerequisites: Completion of all program requirements. Co-requisite: MAE 4943. 10 semester hours credit. [A]

**MAP 2302. Differential Equations.** MAP 2302 is an introductory course in ordinary differential equations. Topics covered are linear first-ordered equations and their applications; methods for solving non-linear differential equations, second order equations, Wronskians, power series solutions, methods of undetermined coefficients, Laplace transforms; and Fourier series solutions. Prerequisite or corequisite: MAC 2313. 3 semester hours credit. [A]

**MAS 3105 Linear Algebra.** This course provides a thorough treatment of linear algebra using a matrix-oriented approach. Major topics include: matrices, systems of linear equations, linear transformations, determinants, eigenvectors and eigenvalues, vector spaces and subspaces, inner product spaces, and orthogonality. 4 semester hours credit [A]

**MAS 4203 Number Theory.** This course offers an investigative approach to number theory in which students develop their capacity to formulate conjectures and explore their ideas and inquiries through the use of a computer algebra system. Conjectures are developed based in part on computer-generated data and formal proofs are then constructed. There is an emphasis on gaining an understanding of the nature of mathematical thinking and learning. 3 semester hours credit. [A]

**MAT 0002 Developmental Mathematics.** This course is designed as a self-paced course for the student who needs to strengthen skills and understanding of the concepts of arithmetic and elementary algebra. Topics include fractions, decimals, percents, ratio and proportion, integers, solving simple equations, and exponents. This course is not open to anyone who has previously completed any other college mathematics course. Students will be enrolled in this course by vertical transfer from MAT 0024. A grade of “C” or higher must be earned in the course or consent of department is needed to advance to the next higher mathematics course which is MAT 0024. This course does not meet general education requirements in mathematics. 5 noncredit semester hours. [P]

**MAT 0024 College Prep Algebra.** This is an elementary algebra course designed for the student who has little or no secondary school background in algebra and needs preparation for MAT 1033, Intermediate Algebra. Topics included: operations on and properties of real numbers; algebraic expressions; factoring; exponents and radicals. A grade of “C” or higher must be earned in the course or consent of department is needed to advance to the next higher mathematics course which is MAT 1033. This course does not meet general education requirements in mathematics. 5 noncredit semester hours. [P]

**MAT 1033 Intermediate Algebra.** This course includes the study of real numbers, linear and quadratic equations, linear inequalities, systems of linear equations, exponents, polynomials, factoring, rational expressions and related equations, radicals, quadratic formula, complex numbers, absolute value, graphing, and applications. This is not a Gordon Rule course and does not satisfy part of the general education requirements in mathematics. Prerequisite: An acceptable score on a state approved mathematics placement test and successful completion of the equivalent of one year of Algebra I, or a “C” or higher in MAT 0024. A “C” grade or higher must be made in this course to advance to a higher level mathematics course. 3 semester hours elective credit. [A]

**MAT/ENC 2905. Mathematics/Communications Through Tutoring.** The goal of this course is to teach the general communication skills needed for successfully tutoring in an academic setting, to teach general methods of tutoring and to teach the tutoring techniques needed in specific courses. Teacher-tutor seminars, teacher-tutor conferences, and formal instruction will supplement the extensive tutoring experiences. The number of hours of credit varies from 1 to 3 hours depending upon the number of hours tutoring: 1 credit, 25 hours; 2 credits, 38 hours; and 3 credits, 50 hours. [A]

**MCB 2010. Microbiology.** This course includes the fundamentals of microbiology including structure, nutrition and growth of genetics and control mechanisms, and an introduction to immunology, virology and bacterial pathogens. MCB 2010L should be taken concurrently. Prerequisite: NUR 1020 or CHM 1030 or consent of department. Three hours lecture per week. 3 semester hours credit. [D]

**MCB 2010L. Microbiology Lab.** An introduction to experimental techniques in microbiology. The exercises include cultivation and various staining techniques, isolation, identification, biochemical activities, antibiotic sensitivity test and basic immunology. Prerequisite: NUR 1020 or CHM 1030 or consent of department. Two hours laboratory per week. MCB 2010 should be taken concurrently. 1 semester hour credit. [D]

**MGF 1106. Mathematics for Liberal Arts I.** This course is designed to enable students to meet part of the general education requirement in mathematics and receive instruction in a broad range of skills beyond algebra. Topics include: sets, counting principles, the metric system, geometry, probability, statistics, permutations and combinations. Prerequisite: Eligibility for MAC 1105. A “C” grade or higher must be earned in this course to satisfy part of the general education requirements in mathematics and to advance to a higher mathematics course. 3 semester hours credit. [D]

**MGF 2118. Mathematics CLAST Review.** This is a review of the essential mathematics skills included in the CLAST exam. It provides additional practice to students who have successfully completed or are currently completing their six hour general education mathematics requirements, but desire remediation in individual concepts. Topics include: sets, logic, geometry, probability, permutations and combinations, algebraic operations; statistics. The course is mandatory for all education majors and students with an overall grade point average below 3.0 who register for the CLAST and cannot be used to meet the mathematics general education requirement. Prerequisite: MAC 1105/1106 or above. 1 semester hour credit. [A]

**MGF 2118A. Mathematics CLAST Retake Review I.** This course is for students who must retake the math section of the College Level Academic Skills Test (CLAST). The student will study the skills needed to pass the concepts failed in the first attempt. This course cannot be used to meet the mathematics general education requirement. Prerequisite: A grade of “C” or higher in MGF 2118. 1 semester hour credit. [A]
MGF 2118A. Mathematics CLAST. This course is for students who must retake the math section of the College Level Academic Skills Test (CLAST). The student will study the skills needed to pass the concepts failed in the second attempt. This course cannot be used to meet the mathematics general education requirement. Prerequisite: A grade of “C” or higher in MGF 2118A. 1 semester hour credit. [A]

MGF 2118B. Mathematics CLAST Retake Review II. This course is for students who must retake the math section of the College Level Academic Skills Test (CLAST). The student will study the skills needed to pass the concepts failed in the third attempt. This course cannot be used to meet the mathematics general education requirements. Prerequisite: A grade of “C” or higher in MGF 2118B. 1 credit. [A]

MHI 4404. History of Mathematics. This course is designed as a capstone course for those students who are majoring in secondary mathematics education. This course consists of readings in the history and philosophy of mathematics and in current issues involving mathematics and society. Contributions from mathematicians such as Archimedes, Descartes, Fermat Newton, Leibnitz, Euler and Gauss are discussed. Emphasis is given to how mathematics relates across disciplines as well as mathematical connections within the discipline; fundamental ideas of high school mathematics are examined from an advanced standpoint. This is a writing-intensive course in which each student develops a portfolio of course accomplishments. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and is required for certification. This course has been designated as an international/diversity course. Corequisites: MAE 4330. 3 semester hours credit. [A]

MMC 1000. Survey of Mass Communication. A survey of the technology, methods, and functions of mass communications media: newspapers, magazines, books, radio, television, and film—with emphasis on evaluation of the impact of mass media on society. 3 semester hours credit. [A]

MNA 1161. Introduction to Customer Service. This course provides individuals pursuing a career in the technical customer support field with the “soft skills” and the “self-management skills” needed to deliver excellent customer support at the help desk. It includes activities that provide the student with a better understanding of customer support careers and practical experience with the skills needed to succeed in this field. 3 semester hours credit. [D]

MTB 1327. Mathematics for Electronics I. A study of the basic concepts of math and algebra. Topics covered: decimals, fractions, scientific notations, roots, powers of ten, introduction to trigonometry and geometry, the use of Kirchhoff’s law, Thévenin and Norton’s theorems, and Ohms Law in circuit analysis. 3 semester hours credit. [O]

MTB 1328. Mathematics for Electronics II. A study of the basic concepts of trigonometry, vector analysis and logarithms. Topics covered: AC circuit analysis, trigonometry, efficiencies, impedance matching, inductive and capacitive reactance, Pythagorean theorem, resonant circuits, power factors, complex number, logarithmic and mathematical tables. Prerequisite: MTB 1327. 3 semester hours credit. [O]

MTG 3212. Modern Geometries. This course presents the axioms, basic concepts, proofs and constructions of Euclidean geometry involving line segments, angles, triangles, polygons, circles, parallel lines and similarity. Constructions are made using both compass and straightedge and interactive geometry software. The course also presents basic concepts of non-Euclidean geometries including hyperbolic and spherical. 3 semester hours credit. [A]

MUC 1101. Music Composition. An applied music course of study in the creative process of composing. Credit will depend upon completion of at least one project which must be performed in a recital or jury. Credit will be granted twice for the course. Prerequisites: MUT 1111 and MUT 1112. 2 semester hours credit. [A]

MUE 1290. Music Skills. A study of the fundamentals of music needed by the elementary teacher as preparation for the public school music course. Recommended for all elementary education majors except those who have had extensive musical training. Not open for credit to music or music education majors. 3 semester hours credit. [D]

MUH 2018. The History of Jazz. This course presents the originations of jazz and covers all periods of jazz history and many of the key musicians. The various styles of jazz are viewed in their historical-social-political context. This course does not satisfy a general education requirement in the humanities. 3 semester hours credit. [A]

MUL 2010. Music Appreciation. A course for the non-music major, designed to teach the skills needed to evaluate and appreciate music. Emphasis is on listening. Discussion relating to form, style and expression will follow each listening session until the student becomes conversant with the elements of music and music composition and familiar with some of the best examples of music literature. 3 semester hours credit. [D]

MUN 1310-MUN 2310. College Chorus. (Freshman and Sophomore) A course requiring two or more hours of mixed chorus per week. Credit will be granted twice for each course. 1 semester hour credit per course. [A]

MUN 1340-MUN 2340. Chamber Chorus. (Freshman and Sophomore) A course requiring two or more hours of choral work per week by selected male and female singers. Credit will be granted twice for each course. Prerequisite: Consent of department. 1 semester hour credit. [A]

MUN 1370-MUN 2371-MUN 2372. Show Choir. (Freshman and Sophomore) A study of the fundamental techniques and principles of integrating dance, voice, music and acting into a performance show choir ensemble. Training in voice, jazz movement, character interpretation and personality presentation is covered. Membership open to all part-time or full-time students on credit or noncredit basis. Public performances scheduled at frequent intervals throughout the year. Prerequisite: Audition or consent of department. Credit will be granted twice for each course. 2 semester hours credit. [A]

MUS 2710-MUN2711. Rock and Jazz Ensemble. (Freshman and Sophomore) A study of rock and jazz with an emphasis on repertoire development and preparation for public performances. Membership is open to all part-time or full-time students on a credit or noncredit basis. Two or more hours of instruction per week. Credit will be granted twice for each course. 1 semester hour credit. [A]

MUS 0010. Student Recital. A course in which all music majors must enroll and receive a satisfactory grade (S) in student recital attendance (MUS 0010) for a total of four semesters during the AA degree program. Attendance requirements for transfer students who were music majors at the institution from which the transfer is being made will be determined by the Department of Fine and Performing Arts in accordance with the number of semester hours completed. No credit. [P]

MUT 1001. Fundamentals of Music. A pre-theory course for the non-music major, or for the elementary education major. Included are the studies of reading clefs, rhythm, notation, scales, and doing simple keyboard and sight-singing exercises. The emphasis is on developing music reading skills. This course is a prerequisite for MUT 1111 and MUT 1221. This course does not satisfy a general education requirement in the humanities. 3 semester hours credit. [D]

MUT 1111. Music Theory I. A study of the fundamentals of music, including clefs, accidentals, enharmonics, and scales. Students will study chordal construction, figured bass, Roman numerals, pop chord symbols, cadences and non-chord tones. Included are written assignments and class drills. 3 semester hours credit. [D]

MUT 1112. Music Theory II. An intense study of diatonic chord progressions and voice leading, including seventh chords and non-chord tones.
Included are written assignments and class drills. Prerequisite: MUT 1111. 3 semester hours credit. [D]

MUT 1221-1222-2226-2227. Sight Singing I, II, III, IV. A study of sight-singing and ear-training techniques. Prerequisite: Consent of department or earlier course in the sequence. 1 semester hour credit each course. [A]

MUT 1231. Keyboard Harmony I. A course designed to closely parallel the musical development encountered in MUT 1111. Some of the topics to be covered include a study of basic chord settings, figured bass and melody harmonization. Improvisation is encountered in each of the specific class assignments. Must be scheduled concurrently with MUT 1111 or with consent of department. 1 semester hour credit. [A]

MUT 1232. Keyboard Harmony II. A continuation of skills development at the piano keyboard to include more advanced patterns, playing four-part harmonizations at sight, cadence patterns in all major keys and student improvisation. Prerequisite: MUT 1231. 1 semester hour credit. [A]

MUT 2116. Music Theory III. A study of modulations and chromatic chords will be followed by variation techniques and binary and ternary forms. Written assignments and class drills will involve original composition in 18th-19th Century small scale, characteristic piano styles. Prerequisite: MUT 1112 or consent of department. 3 semester hours credit. [A]

MUT 2117. Music Theory IV. A study of large scale forms, fugue and late Romantic and Twentieth Century harmonic practices. Written assignments and class drills required. Prerequisite: MUT 2116. 3 semester hours credit. [A]

MVK 1111. Class Piano. A course designed for students who desire general keyboard proficiency. Primary emphasis is on development of music reading and playing for personal satisfaction. Credit will be granted twice for each course. 1 semester hour credit per course. [A]

MVK 2121. Class Piano II. A continuation of MVK 1111, designed for the non-piano major. Emphasis on coordination, major and minor scales and pieces, and increasingly difficult rhythms. Prerequisite: MVK 1111 or consent of department. Credit will be granted twice for each course. 1 semester hour credit per course. [A]

MVK 2621. Basic Piano Pedagogy. This introductory course prepares the student for professional piano teaching at the beginner and intermediate level. Three contact hours per week. 2 semester hours credit. [A]

MVW 1211-2221. App. Music - Voice
MVW 1214-2224. App. Music - Oboe
MVW 1213-2223. App. Music - Clarinet
MVW 1214-2224. App. Music - Bassoon
MVW 1215-2225. App. Music - Saxophone
Private instruction in the primary instrument or voice consists of two-one-half hour lessons per week with 2 semester hours credit per semester. Credit will be granted twice for each course. Catalog numbers and descriptive titles are as follows. [A]

MVB 1211-2221. App. Music - Trumpet
MVB 1212-2222. App. Music - French Horn
MVB 1213-2223. App. Music - Trombone
MVB 1214-2224. App. Music - Bar. Horn
MVB 1215-2225. App. Music - Tuba
MVK 1213-2223. App. Music - Piano
MVK 1212-2222. App. Music - Organ
MVP 1211-2221. App. Music - Percussion
MVP 1211-2221. App. Music - Voice
MVP 1211-2221. App. Music - Flute
MVW 1212-2222. App. Music - Oboe
MVW 1213-2223. App. Music - Clarinet
MVW 1214-2224. App. Music - Bassoon
MVW 1215-2225. App. Music - Saxophone

Private instruction for non-music majors requires that they also be enrolled in at least one other course on campus. This does not apply to dual enrollment or early admissions students.
NUR1010. Professional Seminar I. This course is designed to provide students with a basic understanding of certain key concepts and principles fundamental to the practice of nursing. Emphasis on the wellness-illness continuum will lay the foundation for future study. The student is introduced to the nursing process as a systematic method of problem solving in which effective communication and interpersonal relationships are central components. Basic needs relative to hygiene, activity, rest and sleep, comfort, safety, nutrition, and fluid and electrolytes, urinary and bowel elimination, and oxygenation are necessary to meet the needs of the moderately ill, hospitalized patient. The content includes socio-economic, ethnocultural, spiritual needs, community health concepts, nutrition, and HIV/AIDS education. Instruction includes the development of critical thinking skills. The student will be introduced to medication administration. The clinical application of drugs is also emphasized to insure rational and optimal patient care. Serious attention is given to the skills that are essential to safe nursing practice. Supervised practice and planned hospital experience will provide the student opportunities to assist patients at an optimal level of wellness. Theoretical instruction and clinical experience in geriatric nursing are incorporated throughout the course. This course will also present HIPPA regulations and the implications related to the provision of healthcare. 6 semester hours credit. [D]

NUR1020C. Fundamentals. This course is designed to provide students with a basic understanding of certain key concepts and principles fundamental to the practice of nursing. Supervised practice and planned hospital experience will provide the student opportunities to assist patients that are essential to safe nursing practice. Supervised practice and planned hospital experience will provide the student opportunities to assist patients that are essential to safe nursing practice. The legal, ethical, political and on-the-job issues that today’s nurse must be aware of are presented. Workplace communication, time management, and self-care strategies are among the career advancement tools provided. Information related to effective resume’ writing, interview tips, and employee benefits is also provided. 1 semester hour credit. [D]

NUR1020L. Fundamentals Lab. This lab course is designed to present the student with a basic understanding of certain key concepts and principles fundamental to the practice of nursing, along with the ethical and legal responsibilities of the nurse as a health care provider. Emphasis on the wellness-illness continuum will lay the foundation for future study. The student is introduced to the nursing process as a systematic method of problem solving in which effective communication and interpersonal relationships are central components. Basic needs relative to hygiene; activity; rest and sleep; comfort; safety; nutrition; and fluid and electrolytes; urinary and bowel elimination; and oxygenation are necessary to meet the needs of the moderately ill, hospitalized patient. The content includes consideration of growth and development, socio-economic, ethnocultural, spiritual needs, community health concepts, nutrition, professional role and function, health counseling, current issues in nursing, end of life care, HIV, and domestic violence. Instruction includes the development of critical thinking skills. The student will be introduced to drug standards and legislation, the major classification of drugs and the general actions of selected drugs. The clinical application of drugs is also emphasized to rational and optimal patient care. Serious attention is given to the mathematical knowledge and skills, which are essential to safe nursing practice. Supervised practice and planned hospital experience will provide the student opportunities to assist patients to an optimal level of wellness. Theoretical instruction and clinical experience in geriatric nursing are incorporated throughout the course. [D]

NUR1141. Pharmacology I. This course introduces the study of drugs designed to provide the nursing students with a basic background of drug classifications, actions, dosages, and side effects. This course includes basic drugs and reviews the mathematical computations that are necessary for safe administration in the clinical setting. This course also presents subject matter related to the reduction of errors in drug administration. Drug therapy will be integrated throughout the curriculum. Students will demonstrate safe techniques of medication administration in the skills laboratory prior to administering medications in the clinical area. 1 semester hour credit. [D]

NUR211C. Basic Medical Surgical. This introductory course is designed to provide students with the opportunity to acquire the knowledge and skills to provide safe and effective care for clients with simple medical and/or surgical problems. This course builds upon foundation material from previous courses. The nursing process provides a framework for the students to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Clinical experience is provided in acute care settings. Observational time may be scheduled to enhance learning experiences and will be scheduled in addition to clinical days. There will also be outside assignments such as virtual experiences on the computer that will be included in the clinical experience. 7 semester hours credit. [D]

NUR211L. Basic Medical Surgical Lab. This introductory lab course is designed to provide students with the opportunity to acquire the knowledge and skills to provide safe and effective care for clients with simple medical and/or surgical problems. This course builds upon foundation material from previous courses. The nursing process provides a framework for the students to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Clinical experience is provided in acute care settings. Observational time may be scheduled to enhance learning experiences. [D]

NUR280C. Geriatrics. This unit of study is designed to help the student understand the health related needs that result from the normal aging process. The unit will also discuss assistance for the older adult with age related diseases. 1 semester hour credit. [D]

NUR280L. Geriatrics Lab. This lab unit of study is designed to help the student understand the health related needs that result from the normal aging process. The unit will also discuss assistance for the older adult with age related diseases. 2 semester hours credit [D]

NUR312C. Basic Pediatrics. This course is designed to present the nursing student with basic knowledge and skills related to care of a client from birth through childhood and adolescence. The course will present an introduction to the nursing role in supporting the health of ill children and their families. The nursing process provides a framework for planning care for clients on the wellness-illness continuum with inclusion of human growth and development, cultural diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences. 2 semester hours credit [D]

NUR312L. Basic Pediatrics Lab. This lab course is designed to present the nursing student with basic knowledge and skills related to care of a client from birth through childhood and adolescence. The course will present an introduction to the nursing role in supporting the health of ill children and their families. The nursing process provides a framework for planning care for clients on the wellness-illness continuum with inclusion of human growth and development, cultural diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences. [D]
NUR1422C. Basic Obstetrics. This course is designed to present the nursing student with basic knowledge and skills related to care of a client from conception, concentrating on the stages of normal pregnancy, labor and delivery through postpartum. The course will present an introduction of high risk factors in these areas. The nursing process provides a framework for planning care for clients on the wellness-illness continuum with inclusion of human growth and development, culture diversity, pharmacology, and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, and current issues in nursing. Concepts related to pre, intra, and postoperative care are discussed. Clinical experiences are provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences. 2 semester hours credit. [D]

NUR1422L. Basic Obstetrics Lab. This lab course is designed to present the nursing student with basic knowledge and skills related to care of a client from conception, concentrating on the stages of normal pregnancy, labor and delivery through postpartum. The course will present an introduction of high risk factors in these areas. The nursing process provides a framework for planning care for clients on the wellness-illness continuum with inclusion of human growth and development, culture diversity, pharmacology, and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, and current issues in nursing. Concepts related to pre, intra, and postoperative care are discussed. Clinical experiences are provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences. [D]

NUR 2094C. Physical Assessment in Health Care. This course is designed for registered nurses or graduates of a nursing program who wish to improve their skills for various reasons. The course content will build upon basic nursing knowledge and skills. Content includes completion of a health data base, communication skills, development of nursing diagnosis and body systems assessment. Cultural and sociological influences will be explored. Analysis of data will provide the foundation for formulation of nursing diagnosis. Supervised practice and planned clinical experience will be correlated with theory to provide a meaningful experience for interested students. Three hours lecture/one hour lab per week. 4 semester hours credit. [D]

NUR2142. Pharmacology II. This course builds on the acquired knowledge of basic pharmacology and is designed to prepare the advanced students to perform safe and effective medication administration. Emphasis is provided in the preparation and administration of intravenous medications. Content will include information developed to decrease the errors associated with medication administration. The nursing process is applied to the nursing skills of medication administration. There is no clinical component but the administration of medications is an integral part of clinical experiences. Students will demonstrate safe techniques in the skills laboratory prior to administering medications in the clinical setting. Two hours of lecture per week. 2 semester hours credit. [D]

NUR2122C. Advanced Concepts Medical Surgical. This course is designed to provide information to assist the student in acquiring the knowledge and skills to provide safe and effective care for clients with complex medical and/or surgical problems. This course builds upon material from basic medical surgical concepts. The nursing process will be a guide for the student to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Clinical experience is provided in acute care settings and specialty care areas. Observational time may be scheduled to enhance learning experiences. 6 semester hours credit. [D]

NUR2212L. Advanced Concepts Medical Surgical Lab. This lab course is designed to provide information to assist the student in acquiring the knowledge and skills to provide safe and effective care for clients with complex medical and/or surgical problems. This course builds upon material from basic medical surgical concepts. The nursing process will be a guide for the student to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Clinical experience is provided in acute care settings and specialty care areas. Observational time may be scheduled to enhance learning experiences. 1 semester hour credit. [D]

NUR2291C. Medical Surgical Critical Concepts. This course is designed to provide information to assist the student in acquiring the knowledge and skills to provide safe and effective care for clients with critical medical and/or surgical problem. This course builds upon material from basic and advanced medical concepts. The nursing process will be a guide for the student to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Special emphasis will be given to the following topics: ECG Interpretation, Hemodynamic monitoring, Monitoring Intraocular Pressure, Dialysis, Complex IV Therapy, Trauma, Post anesthesia, Organ transplants, Shocks, Multiple Organ Dysfunction Syndrome and Burns. Clinical experience is provided in acute care setting and specialty care areas. Observational time may be scheduled to enhance learning experiences. 7 semester hours credit. [D]

NUR2291L. Medical Surgical Critical Concepts Lab. This course is designed to provide information to assist the student in acquiring the knowledge and skills to provide safe and effective care for clients with critical medical and/or surgical problem. This course builds upon material from basic and advanced medical concepts. The nursery process will be a guide for the student to utilize critical thinking skills to promote or restore the health of clients within a holistic framework. Clinical experience is provided in acute care setting and specialty care areas. Observational time may be scheduled to enhance learning experiences. [D]

NUR 2350C. Advanced Concepts Pediatrics. This course is designed to present the nursing student with advanced concepts of knowledge and skills related to care of a client from birth through childhood and adolescence. The nursing process is utilized in caring for the high-risk pediatric client on the wellness-illness continuum with inclusion of human growth and development, culture diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, health teaching and counseling, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time will also be scheduled to enhance learning experiences. 3 semester hours credit. [D]

NUR2350L. Advanced Concepts Pediatrics Lab. This lab course is designed to present the nursing student with advanced concepts of knowledge and skills related to care of a client from birth through childhood and adolescence. The nursing process is utilized in caring for the high-risk pediatric client on the wellness-illness continuum with inclusion of human growth and development, culture diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, health teaching and counseling, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences. [D]

NUR 2450C. Advanced Concepts Obstetrics. This course is designed to present the nursing student with advanced concepts of knowledge and skills related to care of a client from conception, labor and delivery, and through postpartum. The course is designed to present an introduction of high risk factors in these areas. The nursing process provides a framework for planning care for clients on the wellness-illness continuum with inclusion of human growth and development, culture diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, health teaching and counseling, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time will be scheduled to enhance learning experiences. [D]
NUR2450L. Advanced Concepts Obstetrics Lab. This lab course is designed to present the nursing student with advanced concepts of knowledge and skills related care of a client from conception, labor and delivery, and through postpartum. The nursing process is utilized in caring for the high-risk obstetric client on the wellness-illness continuum with inclusion of human growth and development, culture diversity, community health concepts, pharmacology and administration of medications, nutrition, legal aspects of practice, interpersonal relationships, health teaching and counseling, and current issues in nursing. Clinical experience is provided in both clinic and acute care settings. Observational time may be scheduled to enhance learning experiences.[D]

NUR 2522C. Mental Health. This course provides the student with the opportunity to acquire knowledge and skills needed to care for patients with maladaptive coping disorders. Therapeutic nurse/patient interaction skills are stressed. Clinical experiences are selected to help students increase their understanding of the interdisciplinary health team and the nurse’s role as a member of the team. Clinical practice is provided in a psychiatric setting. 3 semester hours credit. [D]

NUR2522L. Mental Health Lab. This course provides the student with the opportunity to acquire knowledge and skills needed to care for patients with maladaptive coping disorders. Therapeutic nurse/patient interaction skills are stressed. Clinical experiences are selected to help students increase their understanding of the interdisciplinary health team and the nurse’s role as a member of the team. Clinical practice is provided in a psychiatric setting.[D]

NUR 2810. Professional Seminar II. This course is designed to assist the student in the transition from the role of student to that of graduate nurse enabling effective practice at entry level. It is also designed to assist the graduate nurse to anticipate the challenges of a rapidly changing work environment. Information will be provided on such issues as dealing effectively with social and economic factors that impact the profession, the role of professional organizations and licensure requirements. Tools for developing leadership-management roles, delegating appropriately, and thinking critically and creatively will be presented. 1 semester hour credit. [D]

O

ORI 2000. Oral Interpretation. A course designed to develop the ability to analyze the meaning, and deliver oral interpretations of, the major forms of prose, poetry, and drama. 3 semester hours credit. [A]

OST 1101. Keyboarding and Document Processing. This course includes practice in keyboard control; developing speed and accuracy; and typing reports, tables, memorandums, and business letters. No prerequisite, but concurrent enrollment in CGS 1060 or basic computer skills recommended. 3 semester hours credit [O]

OST 1102. Advanced Document Processing. This course develops advanced skills for producing business documents, including increased keyboard speed and familiarity with a wide variety of documents, forms, and reports. Change prerequisite(s) as follows: Prerequisite: OST 1101, CGS 1500 or consent of department. 3 semester hours credit. [O]

OST 1211. Introduction to Shorthand. An introductory course in the principles of “SuperWrite” shorthand, this course includes dictation and transcription. Prerequisite: OST 1101 or previous document processing or word processing experience. 3 semester hours credit. [O]

OST 1212. Shorthand Dictation and Transcription. A continuation ofOST 1211 with increased practice in dictation and transcription. Prerequisite: OST 1211 or one year of high school shorthand. 3 semester hours credit. [O]

OST 1324. Business Math and Machines. A review of fundamental mathematical processes and business applications, such as discounts, mark-ups, interest, commission, payroll and taxes. Also includes practice using electronic calculating machines. No prerequisite. 3 semester hours credit. [O]

OST 1335. Business Communication. This course develops effective oral and written communications skills in a business environment. It includes written correspondence, interviewing, public relations and business presentations. Prerequisite: Eligibility for ENC 1101 and previous word processing or document processing experience. 3 semester hours credit. [D]

OST 1402. Office Practice. This course is designed to integrate communication and computer usage skills essential to the office professional. A setting will be provided for studying the duties of an office professional, such as telephone techniques, greeting clients, processing mail, filing, locating information, and finding and applying for a job. Pre- or co-requisite: OST 1101 or consent of department. 3 semester hours credit. [O]

OST 1461. Medical Office Technology. This course prepares the student to perform standard duties of medical office personnel, including scheduling, billing, maintaining patient records, preparing insurance claims, coding, and the use of the computer in the medical office. Prerequisite: CGS 1060 or consent of department. 3 semester hours credit. [O]

OST 1501. Office Management. This course will assist the student to develop skills for managing an office. Topics include leadership, productivity, automation, human resources, ergonomics, budgets, cost control, problem-solving, and ethics. Prerequisite: OST 1402 and CGS 1060 or consent of department. 3 semester hours credit. [O]

OST 1582. Human Relations. A course designed to help students understand human relations: getting along with other people and succeeding in the world of work. 3 semester hour credit. [O]

OST 1601. Machine Transcription. This course develops machine transcription skills for producing mailable business letters and documents. It integrates a review of basic language skills, including grammar, punctuation, spelling, proofreading and editing. Prerequisite: OST 1101 or previous document processing or word processing experience. 3 semester hours credit. [O]

OST 1941. Internship in Office Administration. Supervised, practical unpaid work experience in an appropriate business, industry, government agency, or institution which relates to an Office Administration field of study. A minimum of 45 clock hours is required for each semester hour of credit earned. Prerequisites: A minimum of 15 semester hours of credit earned toward a certificate or degree in Office Administration; completion of an internship application and/or approval of the course instructor; and availability of a training slot. 1-3 semester hours credit. May be repeated up to a total of 3 semester hours credit. [D]

OST 2431. Legal Office Procedures. This course will provide students with terminology, background, and knowledge of legal procedures required to work in a law office. The course is designed to assist students who have little or no background in the legal office. Prerequisite: OST 1101 and OST 1601 or consent of department. 3 semester hours credit. [O]

OST 2949. Cooperative Education in Office Administration. Supervised, practical paid work experience in an appropriate business, industry, government agency, or institution which relates to an Office Administration field of study. A minimum of 60 clock hours is required for each semester hour of credit earned. Prerequisites: A minimum of 35 semester hours of credit earned toward a degree in Office Administration; completion of a cooperative education application and/or approval of the course instructor; and availability of a training slot. 1-3 semester hours credit. May be repeated up to a total of 3 semester hours credit. [D]

P

PCB 3063. Genetics. PCB 3063 is an introductory study of the principles of inheritance and the molecular genetics of prokaryotes and eukaryotes including gene regulation. This course addresses specific Sunshine State
Standards, subject matter competencies and pedagogy pertinent to the discipline and required for teacher certification. Prerequisites: BSC 2010, CHM 1045, CHM 1046. 3 semester hours credit. [A]

PCB 4043C and PCB 4043L. Ecology with Lab. PCB 4043 is an introduction to living systems at the population and community/ecosystem levels. It includes energy flow and nutrient cycling in ecosystems; community organization, development and classification; population structure and dynamics. Labs include field work, lab analysis and use of interactive software. This course addresses specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for teacher certification. Prerequisites: BSC 2010/2010L, BSC 2011/2011L, and CHM 1046/1046L. 3 semester hours credit. [A]

PEL 1111. Bowling I. A coeducational course that includes a brief history of the sport followed by instruction and practice in fundamental techniques. Two hours laboratory per week. 1 semester hour credit.

PEL 1112. Bowling II. A continuation of PEL 1111. Two hours laboratory per week. Prerequisite: PEL 1111 or consent of department. 1 semester hour credit.

PEL 1121. Golf. A coeducational course that includes a brief history of the sport, followed by instruction and practice in the fundamental techniques. Two hours laboratory per week. 1 semester hour credit.

PEL 1214. Varsity Softball I. An activity course designed to serve varsity softball team members. May be taken two semesters freshman year for credit. 1 semester hour credit.

PEL 2215. Varsity Softball II. An activity course designed to serve varsity softball team members. May be taken two semesters sophomore year for credit. 1 semester hour credit.

PEL 1218. Varsity Baseball I. An activity course designed to serve varsity baseball team members. May be taken two semesters freshman year for credit. 1 semester hour credit.

PEL 2219. Varsity Baseball II. An activity course designed to serve varsity baseball team members. May be taken two semesters sophomore year for credit. 1 semester hour credit.

PEL 1341. Tennis. A coeducational course that includes a brief history of the sport, followed by instruction and practice in the fundamental techniques. Two hours laboratory per week. 1 semester hour credit.

PEL 1441. Racquetball. A coeducational course that includes a brief history of the sport, followed by instruction and practice in the fundamental techniques. Two hours laboratory per week. 1 semester hour credit.

PEL 1624. Varsity Basketball. An activity course designed to serve varsity basketball team members. May be taken two semesters freshman year for credit. 1 semester hour credit.

PEL 2625. Varsity Basketball. An activity course designed to serve varsity basketball team members. May be taken two semesters sophomore year for credit. 1 semester hour credit.

PEL 2211. Theories of Softball. This course teaches individuals to coach softball. Coaching techniques, strategies, and procedures are emphasized. Three hours of laboratory experience each week are included in the course work. 2 semester hours credit.

PEM 1101-2101. Law Enforcement Conditioning I, II. A physical conditioning program for law enforcement personnel. 1 semester hour credit.

PEM 1101. Physical Conditioning. This course emphasizes physical conditioning and body building through a series of appropriate activities. Two hours laboratory per week. 1 semester hour credit.

PEM 1104. Strength and Training. This course is designed to teach the techniques for building physical strength and conditioning, including how to plan a personal strength and training program. Topics include the benefits of physical strength and exercise, a general knowledge of the physical development of the body and basic fundamentals of nutrition. 2 semester hours credit.

PEM 1114. Jogging. A coeducational course with planned programs in jogging to meet the individual needs of the participant. Two hours laboratory per week. 1 semester hour credit.

PEO 2003. Sports Officiating. Lecture and discussion of rules along with practice in techniques of officiating various sports through laboratory experience. Students must be available for off-campus officiating after school hours. Three hours lecture-laboratory per week. 2 semester hours credit.

PEO 2216. Theory and Practice of Baseball. Lecture and discussion of all phases of baseball techniques, strategy and coaching procedures with some laboratory experience. Three hours laboratory per week. 2 semester hours credit.

PEO 2624. Theory and Practice of Basketball. A lecture and discussion of all phases of basketball coaching techniques including styles of offense and defense and methods of teaching these skills. Three hours lecture-laboratory per week. 2 semester hours credit.

PET 1000. Introduction to Physical Education. This course surveys the principals, history and ethics of quality physical education programs. Topics include current issues and trends and career development in physical education. 3 semester hours credit.

PET 2622. Care and Prevention. This is an introductory course in the care and prevention of athletic injuries. It is designed to teach the beginning student athletic trainer standard simplified methods of injury treatment. This course can also serve as a refresher course and reference guide. 3 semester hours credit.

PHY 1053C. General Physics I. The first course in a two-semester sequence intended primarily for students majoring in biology, pre-medicine, pre-dentistry, pre-pharmacy, pre-optometry, pre-agriculture, pre-forestry, or medical technology. Includes the study of forces, linear motion, circular motion, energy, hydrostatics, heat, thermal expansion and thermodynamics, with laboratory applications of these topics. Corequisite or prerequisite: MAC 1114 or one year of high school trigonometry with grade of C or better. Three hours lecture and two hours laboratory per week. 4 semester hours credit.

PHY 1054C. General Physics II. A continuation of PHY 1053. Topics covered are static electricity, magnetism, direct current circuits, alternating current circuits, sound, light, and nuclear physics, with laboratory applications of these topics. Prerequisite: MAC 1114 or consent of department and PHY 1053C. Three hours lecture and two hours laboratory per week. 4 semester hours credit. [A]

PHY 2048C. General Physics I with Calculus. The first course in a two-semester sequence intended primarily for students majoring in physics, mathematics, chemistry or engineering. Course includes the study of forces, statics, linear motion, circular motion, momentum, energy, gravity, relativity, oscillatory motion, ideal gases, thermal properties of matter and thermodynamics, with laboratory applications of these topics. Corequisite or prerequisite: MAC 2312. Four hours lecture and two hour laboratory per week. 5 semester hours credit. [A]

PHY 2049C. General Physics II with Calculus. A continuation of PHY 2048. Topics covered are electrostatics, direct current circuits, alternating current circuits, magnetism, electromagnetic waves, sound, light, atomic physics, and nuclear physics, with laboratory applications of these topics. Prerequisite or Corequisite: MAC 2313. Prerequisite: PHY 2048C. Three hours lecture and two hours laboratory per week. 5 semester hours credit. [A]
POS 2041. American Federal Government. A study of our Federal Government, designed to give the student an understanding of its organization, principles and the way it works. The relationship of the individual to government is emphasized. POS 2112 is recommended for subsequent study. 3 semester hours credit. [D]

POS 2112. State and Local Government. A study of the organization, the functions, and the operations of state and local governments in the United States. Particular attention is given to state, county, and city government in Florida. This course is designed to be as practical as possible and includes actual participation of county and city officials. POS 2041 is not a prerequisite, but is recommended. 3 semester hours credit. [D]

PSC 1121. Introduction to Physical Science. A general education course involving an elementary study of the physical laws that govern the universe, and characteristics of matter, including the changes it undergoes. Demonstrations and practical applications are emphasized. This course is not intended for science majors. Credits will not be granted to students who have previously received credit for Chemistry 1045 or above or any physics course. Prerequisite: Eligibility for MAC 1105. 3 semester hours credit. [D]

PSC 1121L. Physical Science Laboratory. A laboratory course designed to provide hands on laboratory experiences which will supplement topics covered in PSC1121. These exercises will emphasize lab safety, use of the metric system, accuracy in measurements and dealing with motion, electricity and chemistry. Corequisite: PSC 1121. 1 semester hour credit. [A]

PSY 2012. General Psychology. A course designed to give the student an adequate foundation in the field of psychology, to provide an understanding of human behavior and to enable the student to adapt himself to his physical and social environment. This is the prerequisite course for all advanced courses in psychology. It is recommended that this course be pursued only after completion of one semester of college study. A grade of “C” or higher is required to enter the ASDN program at Chipola. 3 semester hours credit. [D]

Q

QMB 1001. Business Mathematics. This course covers business applications of mathematics. Topics include cash and trade discounts, markup based on cost or selling price, installment payments, notes, depreciation, stocks and bonds, annuities, insurance and graphing. Prerequisites: Eligibility to enter MAT 1033 and completion of OST 1324 (or a department-approved Tech Prep high school equivalent), or consent of department. 3 semester hours credit. [O]

REA 0003. Applied Reading. This course is designed to improve reading speed, vocabulary, comprehension and study skills. Activities and materials are individualized to meet specific needs of students as determined through diagnostic instruments. This four-hour noncredit course is designed for students who do not possess entry skills for college prep reading as indicated by a CPT score below 38, an Enhanced ACT Reading Score of 0-10 or below 9 on the TABE. Students may repeat this course as needed to meet entry requirements for college prep reading. Students who make a “D” in this course will be allowed to advance to REA 0004. This course does not earn college credit but counts 4 semester hours for load purposes. [P]

REA 0004. College Preparatory Reading. A course designed to improve general study skills: reading, listening, note-taking, and question-answering. It is required of all students who fail to make a score of 18 on the Enhanced ACT Social Studies Reading Score or a score below 83 on the FCE-LPT. Students must make a grade of “C” in this course and pass an exit exam before registering for ENC1101. Open to any student. This course does not earn college credit but counts 4 semester hours for load purposes. [P]

REA 1205. Advanced Reading. A course designed to improve students’ literal and critical comprehension skills: finding main ideas; finding major and minor supporting details; distinguishing fact from opinion; identifying the author’s purpose and tone and using context clues, roots, prefixes and suffixes for expanding vocabulary. This course is required of all students who have an overall score of 18-19 on the Enhanced ACT or a score of 83-95 on the FCE-LPT. Required for all students who take REA 0004. ENC 1101 or 0004 may be a corequisite. 2 semester hours credit. [A]

REA 1505. Advanced Vocabulary Skills. This course is designed for vocabulary enhancement achieved by learning word meanings based upon context, word parts, word origins, dictionary usage, and analogies. It permits students to work on developing higher level college vocabulary skills. 1 semester hour credit. [A]

RED 3360 Teaching Reading in Middle/Secondary Schools This course is designed to promote the effective teaching of literacy skills across the curriculum. The major emphasis of this course is placed on current theories, methods, and materials used in content area literacy instruction. Lecture, discussion, simulated teaching and field work constitute different course activities. 3 semester hours credit. [A]

REL 2300. World Religions. An introduction to the study of major religions of the world and the historical framework and philosophies within which they developed. Attention will be given to their origins, nature, classic beliefs, and practices. Among the religions to be considered are Hinduism, Buddhism, East Asian religions, Judaism, Christianity, and Islam. Prerequisite: Acceptable placement scores in reading or a grade of “C” or higher in REA.0004. This course has been designated as an international/diversity course. 3 semester hours credit. [D]

S

SCE 3320 Teaching Middle School Science The course is designed to introduce pre-service middle school teachers to student experiences which are concrete, manipulative, physical and collaborative. It incorporates the basic process skill approach to the teaching and learning of science which are observation, measurement, classification, communication, inferences, and prediction. Strategies include those of challenging misconceptions, inquiry (question provided), critical thinking, collaboration, lesson planning and concept mapping. The content includes topics in physical science, life science, earth and space science, science and technology which are macroscopic and contains social issues. Co-requisite: SCE 3940. Prerequisite: 18 semester hours of science. 3 semester hours credit. [A]

SCE 3940 Teaching Middle School Science Practicum This course is designed for students who are majoring in secondary science education and who will be obtaining teacher certification in grades 6-12. This practicum accompanies SCE 3320 and provides students with opportunities to present their interactive curriculum projects to middle school students in local area school districts. Students spend a minimum of 30 school-based hours in the middle school classroom. Project presentations will be coordinated with inservice middle school teachers and their curriculum schedules and needs. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Corequisite or Prerequisite: EDF 3214 and SCE 3320. 1 credit hour. [A]

SCE 4330 Teaching Methods in Secondary Science. This course covers contemporary thinking, practices, and research in the teaching of science (pedagogical content knowledge, and pedagogical knowledge in general) as it relates to secondary school students. It is designed to introduce secondary school teachers to a knowledge-based approach to the teaching and learning of science which includes knowledge construction. In doing so, the course will focus on core concepts and principles in science which will serve as the context for course activities (e.g., in-class inquiry activities; assignments; assessment;
SCE 4941 Teaching Secondary School Science Practicum. This course is designed for students who are majoring in secondary science education and who will be obtaining teacher certification in grades 6-12. This practicum accompanies SCE 4330 and provides students with opportunities to present their interactive curriculum projects to secondary school students in local area school districts. Students spend a minimum of 30 school-based hours in the secondary school classroom. Project presentations will be coordinated with inservice secondary school teachers and their curriculum schedules and needs. This course addresses specific Sunshine State Standards, subject matter competencies, and pedagogy pertinent to the discipline and required for certification. Corequisite: SCE 4330. 1 semester hour credit. [A]

SCE 4943 Seminar in Science Education. This course is designed to provide students with instructional strategies, planning techniques, evaluation procedures and class management skills. Pre-requisites: All other program requirements complete. Co-requisite: SCE 4945. 3 semester hours credit. [A]

SCE 4945 Student Teaching in Science. This course requires a teacher candidate to demonstrate pre-professional competencies during a 16 week, full-time internship in a public school approved by the department. Contact hours: a minimum of 35 hours per week for 15 weeks. Prerequisites: Completion of all program requirements. Co-requisite: SCE 4943. 10 semesters hours credit. [A]

SLS 1101. Orientation. This course provides the entering student with information necessary for successful adjustment to college life, work and activities. Attention is given to study habits, vocational choice and the development of a well-rounded philosophy of life. This course is mandatory for students who have completed fewer than 12 semester hours and for all high school graduates who were dually enrolled. 1 semester hour credit. [D]

SLS 1261-1262, 2263-2264. SGA Leadership Development I, II, III, IV. A course designed for student leaders to participate in the SGA organization and development of the student activities program. The course includes the dynamics of student organizational behavior, personal and group goal setting, conflict resolution, and development of leadership skills. Required for all Student Government Association Officers. 1 semester hour credit. [A]

SLS 1265-1266, 2267-2268. Ambassador Leadership Development I, II, III, IV. A course designed for student leaders to participate in the Student Ambassador program. The course includes the dynamics of student organizational behavior, personal and group goal setting, conflict resolution, and development of leadership skills. Required for all Student Ambassadors. 1 semester hour credit. [A]

SLS 1401. Career and Life Planning. A course designed for both freshman and sophomore students (especially undeclared majors) to help them plan realistic career and life goals through the development of self evaluation, career awareness and career decision-making skills. Students engage in a series of exercises which stimulate thinking about and planning for the future, much of which is done in small groups. The current job market is explored through the use of the Career Laboratory. 2 semester hours credit. [A]

SLS 1501. College Success Skills. A course designed for first semester freshmen students. It serves as an introduction to Chipola College and assists the beginning student in coping with the people and programs available to help them get the most out of their college experience. Lab portion of the class is tailored to meet the individual needs of the student. 2 semester hours credit. [A]

SPC 2016. Speech Communication for Educators. This course is designed to help future teachers become more effective communicators, particularly through the medium of public speaking, with emphasis on the demands specific to the education profession. Also, the demands of conveying such information to secondary students will be emphasized. Open to Chipola Secondary Education applicants only. Requires approval of the Director of the Chipola Teacher Education Department. 1 semester hour credit. Prerequisites: ENC 1101 and ENC 1102 with grade of “C” or higher. Prerequisite or corequisite: EME 2040. [A]

SPC 2050. Principles of Speech. An intensive study of the speech process, designed primarily for English, speech, elementary education and special education majors. Emphasis is on enabling the students to evaluate their own speech; to understand phonetic, physiological, and psychological factors involved in speech; and to establish procedures to follow for personal speech improvement. A study of the International Phonetic Alphabet is included. 3 semester hours credit. [A]

SPC 2600. Effective Public Speaking. A course dealing with the preparation and presentation of speeches for business, social and professional occasions. Speech principles and problems will be dealt with in regard to the development and use of the speaking voice. Prerequisite: ENC 1101, ENC 1102, or instructor’s approval. 3 semester hours credit. [D]

SPN 1000. Basic Spanish Conversation. A one-semester course designed for those who wish to acquire some knowledge of Spanish through the use of conversation, not for those who wish to meet university curriculum requirements in foreign language. A brief introduction to the history, geography and culture of Spanish-speaking countries is included. 3 semester hours credit. [O]

SPN 1120. Elementary Spanish. A study of the essentials of Spanish, with emphasis on oral expression. Open to students who enter college without any high school Spanish. This course has been designated as an international/diversity course. Prerequisite: Eligibility to take ENC 1101 or consent of department. 4 semester hours credit. [A]

SPN 1121. Elementary Spanish. A continuation of SPN 1120 with emphasis on both oral and written expression. This course has been designated as an international/diversity course. Prerequisite: SPN 1120. 4 semester hours credit. [A]

SPN 2200. Intermediate Spanish. A course including the reading of selections from modern prose authors, a review of grammatical principles, and further study of composition and conversation. This course has been designated as an international/diversity course. Prerequisite: SPN 1121. 4 semester hours credit. [A]

SPN 2201. Intermediate Spanish. A continuation of the courses 2200-2201. This course has been designated as an international/diversity course. Prerequisite: SPN 2200. 4 semester hours credit. [A]

SPN 2270. Spanish Language and Culture Study Abroad. This course is the equivalent of Spanish 2200 plus seminars and travel to examine important aspects of Spanish art, architecture, history, music, dance film and other Spanish cultural phenomena. The course will be taught intensively in Spanish. It will include regular classroom meetings, a four-week home stay, travel, and communicative practice with learning partners in the host country. Prerequisite: SPN 1121 or equivalent. 4 semester hours credit. [A]

STA 2023. Introduction to Statistics. An introductory statistics course covering various statistical applications for business, medical/nursing, education, psychology, natural science, and social science majors. The course introduces descriptive and inferential statistics through such topics as measures of central tendency and dispersion, discrete and continuous probability distributions, sample designs and sampling distributions, statistical estimation, correlation, regression, Chi-Square analysis, hypothesis testing, and computer analysis of various statistical concepts. Prerequisite: MAC 1105 or MAC 1140 or consent of department. 3 semester hours credit. [D]

SYG 1000. Introductory Sociology. A general study of institutional development, social determinants, social process, and cultural growth. The aim of the course is to help the student understand how our present society evolved,
how it functions, and how it is developing. Considerable time is devoted to
the study of the social problems of today and to the application of the
sociological principles involved. The course is designed to serve as an
introduction to other courses in the field. 3 semester hours credit. [D]

SYG 1010. Contemporary Sociology. This course is intended to provide
the student with an insight into some of the major social issues and problems
confronting American society. The course will have the flexibility to shift the
focus on issues and problem areas as they move in and out of the social arena.
It will provide students with a multi-cultured, unisex course capable of dealing
with any social problem subject area deemed appropriate for study. This
course has been designated as an international/diversity course. 3 semester
hours credit. [D]

T

Accounting. Covers fundamental federal income tax regulations applicable to
individuals, including preparation of forms, documentation requirements,
computation of tax, tax planning, and use of computerized tax preparation
programs. No prerequisite. 3 semester hours credit. [O]

THE 1020. Introduction to Theatre. This course examines the evolution of
several facets of theatre, including acting, directing, playwriting, the physical
stage, performance conditions, and dramatic literature. The emphasis is on
demonstrating the collaborative, eclectic nature of theatre, and on providing
students with a sophisticated understanding of how live performances have
evolved to meet the demands of each society through the ages. This class meets
the Humanities requirement. 3 semesters hours credit. [A]

THE 1051. Theatre for Special Audiences. A course for participation in the
organization, construction, rehearsal, and performance of a show for
children. Credit for this course will be received only by members of the
ensemble who have been selected by audition. 3 semester hours credit. [A]

THE 1925-1926-1927. Rehearsal/Performance Lab. A course for partici-
pation in theatrical productions. Credit may be received for acting, choreog-
raphy, dancing, singing, or stage management in plays or musicals. Prerequi-
site: Courses should be taken in sequence. 1 semester hours credit each course.
[A]

THE 2014. Modern Dramatic Literature. A study of the diverse trends in
playwriting and in theatrical performance over the past one hundred years as
viewed through the works of the major playwrights of Europe and North
America. The focus of the course will be placed equally upon script analysis and
the art of theatre. 3 semester hours credit. [D]

THE 2721. Children’s Theatre. A course for participation in the
organization, construction, rehearsal, and performance of a show for children. Credit
for this course will be received only by members of the ensemble who have
been selected by audition. 3 semester hours credit. [A]

THE 2925-2926-2927. Rehearsal/Performance Lab. A course for advanced
participation in theatrical productions. Credit may be received for acting, choreog-
raphy, dancing, singing, or stage management in plays or musicals. Prerequisite:
Courses should be taken in sequence. 2 semester hours credit each course. [A]

TPA 1290. Technical Theatre Lab. A course for participation in the technical
facets of a theatre production. Credit may be received for work in the areas
of lighting, set construction, costuming, publicity, and makeup. 1 semester
hour credit. [A]

TPA 1291-1292. Technical Theatre Lab. A course for participation in the
technical facets of a theatre production. Credit may be received for work in the
areas of lighting, set construction, costuming, publicity, and makeup. Prerequisite: TPA 1290. 1 semester hour credit. [A]

TPA 2200. Stagecraft. A lecture/seminar/laboratory course designed to help
acquaint the student with general play production procedures. The course will
familiarize the student with the overall workings of a theatrical organization
and facets of technical theatre through textbook, video, and assigned crew work
related to the semester’s production. 3 semester hours credit. [A]

TPA 2293. Technical Theatre Lab. A course for participation in the technical
facets of a theatre production. Credit may be received for work in the areas
of lighting, set construction, costuming, publicity, and makeup. 1 semester
hour credit. [A]

TPA 2296. Technical Theatre Lab. A course for advanced participation in
the technical facets of a theatre production. Credit may be received for
significant, independent projects in technical theatre. Prerequisite: TPA 1291; courses
should be taken in sequence. 2 semester hours credit each course. [A]

TPA 2297. Technical Theatre Lab. A course for advanced participation in
the technical facets of a theatre production. Credit may be received for
significant, independent projects in technical theatre. Prerequisite: Consent
of department. 3 semester hours credit. [A]

TPP 1100. Stage Acting. An introduction to the requirements of acting in
plays. The focus will be placed equally upon script analysis and upon
developing the technical skills necessary to perform comfortably on a stage.
There will be regular lectures and discussions, as well as performance
assignments on pantomime, improvisation and acting technique. The final
grade will not be based upon talent. 3 semester hours credit. [A]

TPP 2210. Touring Theatre. A course for participation in the organization,
construction, rehearsal, and performance of a touring production. Credit for
this course will be received only by members of the ensemble who have been
selected by audition. 3 semester hours credit. [A]

TSL 3080 ESOL Issues: Principles and Practices. The course is designed
to provide students with information and skills concerning the education of
students who have limited English proficiency (LEP). The course addresses
recognizing the need for training in order to work with LEP students and focuses
on cross cultural understanding and methods of teaching speakers of other
languages. It also focuses on working with the families of the LEP students.
Ten hours field experience. Prerequisite: EDF 3214. 3 semester hours. [A]

WOH 2012. World History I. This course is a comprehensive global
perspective of world history. It is the study of all geographical areas and
civilizations. It identifies and explores the links among civilizations that
produce a multicentered world history while paying particular attention to
unique identities and contributions. It examines briefly the various political
and economic systems, religions, philosophies and renowned leaders of the
world civilizations and societies. The perspective is multicultural and
multifaceted to effect a more integrated understanding of global development.
This course spans the origins of civilizations through the Enlightenment.
This course has been designated as an international/diversity course. 3 semester
hours credit. [D]

WOH 2022. World History II. This course is a comprehensive global
perspective of world history. It is the study of all geographical areas and
civilizations. It identifies and explores the links among civilizations that
produce a multicentered world history while paying particular attention to
their identities and unique contributions. It examines briefly the various political and economic systems, religions, philosophies and renowned leaders of the world civilizations and societies. The perspective is multicultural and
multifaceted to effect a more integrated understanding of global development.
This course spans the eras from the Enlightenment to the present. This course
has been designated as an international/diversity course. 3 semester hours credit. [D]