CAP 1023  
**Introduction to Game Development**  
3 Credits  
Survey of the various aspects of game development including: game programming and scripting, design, modeling and rendering. Students will work on projects involving design and storyboarding, computer programming and scripting, as well as multimedia presentations and artwork. Aspects of the gaming industry will be covered to include human computer interaction, mathematical and physics consideration, and the business of game production and distribution.  
Prerequisites: CGS 1000

CAP 2042  
**Game Design and Development**  
3 Credits  
In this hands-on course the student will practice creating 2D and 3D graphics using game and simulation software. The student will perform polygonal as well as nurbs modeling to create programmable 3D objects able to be rendered for simulation software and computer games, projects include creating objects ad performing subdivision modeling to include splitting and extruding surfaces. Also, students will practice various animation techniques using software rendering as well as programming code.  
Prerequisite: CAP 1023

CAP 2043  
**Advanced Game Design and Development**  
3 Credits  
In this hands-on course the student will continue to create animations for computer games and simulation software. The student will perform projects that include using ray tracing rendering, animating motion along a path, programming animation, rendering scenes and apply lighting and shading. Other projects allow the student to apply movement along nurbs and splines, as well as applying dynamics with particles and emitters. Rendering objects for use in computer game engines will also be covered.  
Prerequisite: CAP 2042

CAP 2816  
**Database Management II**  
1 Credit  
Focuses on advanced data file techniques.  
Prerequisite: CGS 1540

CAP 2840  
**Personal Financial Management**  
1 Credit  
Focuses on using a computer to manage personal finances, with an emphasis on determining a budget, entering checkbook information, preparing a personal net worth statement and keeping a record of monthly expenses.

CAP 2939  
**Digital Media/Multimedia Technology Capstone**  
3 Credits  
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project based experience. The student’s project requirements will be designed in concern with his/her area of curriculum emphasis. Permission from instructor required.

CCJ 1010  
**Introduction Criminology**  
3 Credits  
Focuses on the complex factors related to crime in America, including basic issues, scope and economic impact.

CCJ 1020  
**Introduction to Criminal Justice**  
3 Credits  
Covers the historical and philosophical backgrounds of criminal justice agencies and examines the development of the courts, correctional agencies, and law enforcement processes. Topics include the Supreme Court, the 14th Amendment, individual rights, and requirements and opportunities in the law enforcement and correctional fields.

CCJ 1488  
**Ethics in Criminal Justice**  
3 Credits  
This course is a practical overview of key issues, questions, and concepts in applied ethics in the field of criminal justice. The course will include the historical development of ethical theories, morality and law, and ethical decision making in law enforcement, courts, and corrections.

CCJ 2013  
**Introduction to Victimology**  
3 Credits  
This course is about victims of crime. It provides an introductory level review of the many facets of criminal victimization and the efforts to assist crime victims. The course covers a wide range of topics including trends and interpretations of victimization research, laws, programs, and services, the emotional and social impact of crime, victim rights and restitution and the extent of participation by victims in the criminal justice process.
CCJ 2111
Introduction to Theories of Criminal Behavior
3 Credits
This course presents the major theoretical explanations of crime and criminal behavior. It focuses on the historical development of criminological theory based on various definitions of crime. The primary purpose of this course is to provide a clear overview of the major academic explanations (or theories) that dominate criminology in an effort to clarify what is known about crime based upon empirical research. To this end, this course is designed to provide students with a basic understanding of historical and current criminological perspectives, as these are the foundations upon which both criminological research and public policy are based.

CCJ 2191
Introduction to Human Behavior in Criminal Justice
3 Credits
This course provides a study of human nature and the peculiarities of human behavior and how it relates to crime and delinquency with emphasis on how this behavior relates to the duties and responsibilities of the criminal justice practitioner. The course will emphasize abnormal behavior and how criminal justice practitioners should react with primary emphasis on the behavioral aspects of people in crisis situations and how criminal justice practitioners should respond. The course will deal with issues of police crisis intervention and crisis management.

CCJ 2358
Criminal Justice Communication and Reports
3 Credits
This course provides an overview of basic principles of effective communication, written, verbal, and digital for personnel in the criminal justice profession. Students will be exposed to police report writing, drafting correspondence, ad preparing written summaries. Students will learn to research statistics, texts, internet, and intranet systems as well as to write and edit documents common to the criminal justice system. Students will also participate in group discussions and prepare and deliver short oral presentations. Basic computer skills for communication ad research in criminal justice will be covered as well.

CCJ 2600
Criminal Deviant Behavior in Society
3 Credits
Studies the various deviant behaviors with which criminal justice practitioners interact daily. Topics include the nature of deviance, sexual deviance, alcoholism, drug addiction, mental illness, violence, and suicide.

CCJ 2610
Introduction to Criminal Typologies
3 Credits
The primary goal of this course is for students to recognize and understand the utility of constructing typologies as a precursor to understanding criminal behavior. Students will review the differences in varying patterning of criminality.

CCJ 2618
Forensic Psychology
3 Credits
This course is an examination of the psychology of human behavior as it relates to crime. The student will be introduced to psychopathology, the sexually violent offender, and serial murderers. The student will also examine violent juvenile offenders and the process of psychological conditioning which allows them to commit violent criminal acts. The student will also be introduced to criminal profiling.

CCJ 2648
Organized Crime
3 Credits
This course involves an examination of organized crime, including its history, structures, activities and government efforts to control it.

CCJ 2671
Race, Gender, and Ethnicity in Criminal Justice
3 Credits
Discrimination and disparities have long been points of interest and discontent in the field of criminal justice. This course looks on the impact of race and ethnicity, class, gender, and sexuality in criminal justice. These four factors affect the administration of justice for offenders, and also impact the career of the criminal justice professional. The goal of the course is to broaden our understanding of diversity and discrimination in criminal justice.

CCJ 2685
Domestic and Sexual Violence
3 Credits
This course is designed to examine the various expressions of violence within the family structure including child, spouse, partner, and elder abuses. Topics will also include sexual abuse, sexual assault, stalking, and domestic homicide. Also included will be topics on the psychological and social causes of domestic and sexual violence, recognizing its signs, and studying its effect on its victims as well as programs and policies for prevention and treatment.

CCJ 2720
Introduction to Criminal Justice Research Methods
3 Credits
The primary goal of this course is for students to recognize and understand the basics of research structure within the criminal justice and criminology disciplines. Upon successful completion of this course, students will have an understanding of the social scientific approach which includes the fundamental concepts of ethics, research design, data collection and analysis, and finally interpretation.

CCJ 2910
Directed Research
3 Credits
An individualized study project which applies the objective approach in the observation and reporting of information relating to social problems, with a focus on understanding and interpreting data, as well as basic statistics. Documented
research paper required and must relate to a criminal justice subject area in which internship is being done. College level reading and writing skills required. Prerequisites: Restricted to Criminal Justice majors only.

CCJ 2934
Contemporary Issues in Criminal Justice
3 Credits
This course will offer an extensive examination of selected contemporary issues in criminal justice.

CCJ 2935-9
Seminar on Criminal Justice Issues
3 Credits
Focuses on selected topics and issues not usually covered in other courses.

CCJ 2940
Criminal Justice Internship
3 Credits
Provides an opportunity for the student with no criminal justice experience to observe the criminal justice system in operation. The student will be expected to compare classroom theory with the day-to-day operation of the criminal justice agency and the roles and responsibilities of the professional in the field. The student will be required to spend a total of 100 clock hours, spread over the semester, in the agency. Prerequisites: Restricted to Criminal Justice majors only.

CCJ 2949
Criminal Justice Field Studies
3 Credits
This course will provide students with an opportunity to learn about and observe the operations of various criminal justice agencies. Students will be expected to compare classroom theory with the day-to-day operation of various criminal justice agencies and the roles and responsibilities of their professionals in the field. The course will include classroom lectures and projects, agency ride-alongs, facility tours, court observations, and interviewing and shadowing agencies members. In addition to limited classroom meetings the student will also be required to spend a total of 100 clock hours spread over the semester in the field observing various agencies.

CEN 2939
Network Administrator Capstone
3 Credits
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project-based experience. The student's project requirements will be designed in concern with his/her area of curriculum emphasis. Permission from instructor required.

CET 1112C
Basic Digital Systems
3 Credits
This course is an introduction to basic digital electronics and is for the student who has previously taken EET 1083C or will be taking both classes in the same semester. Topics covered in this course are computer number systems, Boolean algebra, combinational logic circuits, logic family characteristics, and flip flops. Laboratory exercises will be assigned to reinforce the major concepts covered in the lecture segment of the courses.

CET 1123C
Introduction to Microprocessors
3 Credits
Presents introductory material on microprocessing. Topics include the microprocessor chip and its architecture, bus systems, memory map, input/output devices, interface devices, machine and assembly languages, instructions and addressing modes. Laboratory exercises are included. Prerequisite: CET 1112C

CET 1172C
Computer Upgrading and Repair
3 Credits
Covers the knowledge and skills necessary for upgrading and repairing the hardware of a typical personal computer (PC). Includes the study of microprocessors, basic bus and input/output (I/O) interface types, and the types of semiconductor memories found in a typical PC. Also studied is the layout of the drives set up by a disk operating system and how the operating system works with the hardware. This course will further prepare the student for the A+ Certification test. Laboratory exercises are included. Prerequisite: CGS 1000

CET 1174C
Advanced Computer Repair
3 Credits
This course is for someone working in a computer-related field or has completed CET 1172C. Provides hands-on PC repair experience, based on A+ certification. Covers advanced Windows PC software, hardware, and the most common problems that occur in PCs. IRQs, conflicts, registry, network, and browser problems are covered. Computer service business concepts are introduced. Laboratory exercises are included. Prerequisite: CET 1172C

CET 1556C
Structured Cabling
3 Credits
Provides the student with the basic concepts in a complete cabling system. Topics include cable types and their characteristics, connector types, cable layouts for a simulated system backbone, cross connect, etc. and cable installation, testing and troubleshooting of a cable system. The course includes lab work and a lab fee requirement. Prerequisites: CTS 1305 or permission of instructor.
masks; and basic network design. This is the first of a four-part series designed to prepare students for the Cisco Certified Networking Associate examination.

CET 1610
Cisco Router Technology
3 Credits
Designed to prepare a student to apply and understand the basics of networking hardware. The course covers beginning router configurations; routed and routing protocols; and introduction to LAN switching. This is the second of a four-part series to prepare students for the Cisco Certified Networking Associate examination. The first part of this series is covered in CTS 1305.
Prerequisite: CET 1600

CET 2113C
Digital Systems Analysis
3 Credits
This course is a continuation of the basic digital electronics covered in CET 1112C. The analysis of combinational logic and sequential logic circuits is covered in the lecture segment of the course. Circuits include adder/subtractor, registers, counters, multiplexors, and others. Laboratory exercises will be assigned to reinforce these major concepts and circuits.
Prerequisite: CET 1112C

CET 2152C
Advanced Microprocessors
3 Credits
Covers the communications between the microprocessor and external devices. Topics include writing and debugging communications programs, analyzing and building interface circuits. Laboratory exercises are included.
Prerequisites: CET 1123C, CET 2113C

CET 2335C
Microcomputer Systems
3 Credits
Covers the hardware of a typical personal microcomputer (PC). It includes the study of a 16-bit microprocessor, basic bus and input/output (I/O) interfaces, and the interfacing of semiconductor memories found in a typical PC. Devices such as programmable interface adapters, programmable interrupt and direct memory access (DMA) controllers, and serial communications interface adapters are studied. The student will use the schematics of a PC and diagnostic tests to troubleshoot faults in an actual system. Laboratory work is required.
Prerequisites: CET 1123C, CET 2113C

CET 2610
Cisco Advanced Router Technology
3 Credits
Designed to prepare a student to apply and understand the advanced principles and applications of networking hardware. The course covers advanced router configurations; LAN switching; network management; and advanced network design. This is the third of a four-part series to prepare students for the Cisco Certified Networking Associate examination.
Prerequisites: CET 1610

CET 2620
Cisco WAN Technologies
3 Credits
Designed to prepare a student to apply and understand the advanced principles, applications, and implementation of networking hardware. The course covers advanced network design projects and advanced network management projects. This is the fourth of a four-part series to prepare students for the Cisco Certified Networking Associate examination.
Prerequisites: CET 2615

CET 2939
Computer Engineering Capstone
3 Credits
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project-based experience. The student’s project requirements will be designed in concert with his/her area of curriculum emphasis. Credit for this course does not apply to the associate in arts degree. Permission from instructor required.

CGS 1000
Introduction to Computers and Technology
3 Credits
Provides students with an introductory overview of the Internet, World Wide Web, impact of computer on society and business, historic development of data processing, basic functions and use of word processing, spreadsheet, database, and presentation system and desktop publishing software applications, basic skills using a Web browser and search engine, and careers in the field of computer science.

CGS 1103
Project Management
3 Credits
This course introduces the student to the basics of project management in particular as project management applies to Web development. They learn to plan a project, create a project schedule, assign resources and costs, track projects, and share information across projects, applications and the World Wide Web.
Prerequisites: CGS 1000

CGS 1107
Introduction to Computers
1 Credit
An introductory computer literacy course for the general student population with emphasis on current technology and the implications for and the effects on our society. Topics will include cyber space; communications, including the impact of the Internet and World Wide Web; ethical, privacy, environmental, and health related issues. Software applications will include a brief introduction to Windows, word processing, spreadsheets, and graphics. Students will complete a variety of short cross curricular projects, integrating critical thinking skills and cooperative learning.
Clint G. Smith

CGS 1160
Desktop Information Management
1 Credit
A general introduction to the basic capabilities of a desktop informa-
tion management program, such as Outlook. Topics covered include
organizing information, managing your time and schedule, and
communicating with other people.

CGS 1500
Applied Word Processing
1 Credit
Focuses on basic word processing applications, with an emphasis
on term papers, reports and resumes. Prerequisite for this course
are OST 1142 or ability to type 20 wpm or permis-
sion of instructor.

CGS 1510
Spreadsheet Applications I
1 Credit
Focuses on basic spreadsheet applications such as replication,
automatic recalculation, financial modeling, analysis and pro-
jection, and general mathematical calculations. Prerequisites: CGS 1000 or OST 1142 or permission of the instructor.

CGS 1520
Electronic Presentations I
1 Credit
Focuses on creating electronic presentations using text, graphic
images, charts, sound, video and animation. Different types of
presentations will be created to communicate information in
an organized manner for educational and professional busi-
ness settings. Prerequisites: CGS 1000

CGS 1521
Adobe Photoshop Elements
1 Credit
Introduces Adobe Photoshop Elements program. Focuses on
simple editing techniques and manipulating and modifying objects.
Prerequisite: CGS 1000

CGS 1540
Database Management I
1 Credit
Teaches how to work effectively with a data management ap-
lication, with an emphasis on assembling and organizing data
in manageable records and files. Prerequisites: CGS 1000

CGS 1554
Internet Basics
1 Credit
An introductory course designed to teach the basics of navigat-
ging the Internet and the World Wide Web. Topics include
Internetiquette, using search engines and file transfer proto-
cols. A special fee will be charged for this course. Prerequisite: CGS 1000

CGS 1555
Introduction to Internet
3 Credits
An introductory course designed to teach the basics of navigat-
ging the Internet and the World Wide Web. Students partici-
pate in online and off-line activities such as accessing the
Internet, sending electronic mail, browsing newsgroups, and
completing research activities. Also discussed is Internetiquette acceptable behaviors and standards of conduct.
A special fee will be charged for this course. Prerequisite: CGS 1000

CGS 1577
Presentation Systems
3 Credits
Students in this course learn how to design and develop multi-
media presentations using linear design. Students learn the
differences between a presentation program and an authoring
program. Project components will include text, graphics,
sound, video, and animation. Students will learn to create,
import, and scan these components. Prerequisite: CGS 1000

CGS 1761
Computer Operating Systems
3 Credits
This course provides a basic history and overview of computer
operating systems. Basic theories, concepts and terminology,
and evolution of computer operating systems are covered.
Development, function, and comparisons of common operat-
ing systems such as DOS, Windows 9x, Windows NT/2000,
Unix/Linux, AS/400, and Mac OS are discussed. In particular,
this class is meant to introduce processes such as the pro-
cessing unit, file systems, process management, synchroniza-
tion, memory management and I/O management. Prerequisite: CGS 1000

CGS 1871
Multimedia Authoring I
3 Credits
Introduces the student to multimedia basics, application struc-
ture, and organization. Focus is on the conceptual elements of
multimedia implementation and authoring basics. Prerequisites: CGS 1000

CGS 1936
Perl and CGI
3 Credits
Introduces students to the programming language Perl and its
use with CGI. Topics include understanding the basics of pro-
gramming in Perl and performing tasks such as information
processing, data formatting and its retrieval. Additional topics
may include using CGI scripts in client server systems such as
the Internet, processing HTML web forms, and accessing data-
base servers. Prerequisites: CGS 1000
CGS 2091
Information Technology: Ethical/Legal Issues
3 Credits
After taking this course the student will be able to identify different types of computer crime and distinguish the various types of law applicable. Existing and emerging legislation pertaining to computer crime will be presented. The student will be exposed to various types of incidents and the proper evidence handling techniques. Ethics codes will be presented and discussed.

CGS 2301
Management Information Systems
3 Credits
Focuses on the role of information systems in the management process, with emphasis on the various aspects of processing data, characteristics of communication and information, and problem solving.
Prerequisite: CGS 1000

CGS 2511
Spreadsheet Applications II
1 Credit
Emphasizes advanced spreadsheet techniques.
Prerequisite: CGS 1510

CGS 2512
Spreadsheets III
1 Credit
This is a continuation of CGS 2511, Spreadsheets II. More advanced concepts and macro programming are emphasized.
Prerequisite: CGS 2511

CGS 2525
Electronic Presentations II
1 Credit
This is a continuation of CGS 1520, Electronic Presentations I. Advanced concepts are emphasized.
Prerequisite: CGS 1520

CGS 2541
Database Design
3 Credits
Focuses on the use and development of a database program, with an emphasis on loading, modifying and querying capabilities. Topics include storage devices, data design, administration, analysis and implementation, data structures, indexed and direct file organizations, and hierarchical network and relational models. Students enrolled in a degree or college credit certificate program must complete all prerequisites.
Prerequisite: CGS 1000

CGS 2585
Desktop/Internet Publishing
3 Credits
Covers principles and techniques of document and internet publishing using an industry standard software program(s). Topics include design principles, document creation and layout, and publishing techniques for print and the web.
Prerequisite: CGS 1000

CGS 2786
Web 2.0 Applications
3 Credits
This course will cover various Web 2.0 applications. Topics include forms, blogs, wikis, calendars, slideshows and web hosting.
Prerequisite: CGS 2822

CGS 2804
Vector Graphics Applications
3 Credits
This course concentrates on the methods and computer applications used in two-dimensional vector-based software applications. Topics include illustration and design strategies.
Prerequisite: CGS 1000

CGS 2820
WEB Authoring HTML
3 Credits
Introduces the student to the fundamentals of Web page authoring. Students will learn how to use HTML to create web pages. They will learn how to generate HTML links, add graphics, create image maps, tables, frames, and forms. Advanced techniques include new HTML tags, virtual reality, audio, and video and presentation of other non standard data. They will also learn how to use FTP to upload and download files.
Prerequisite: CGS 1000

CGS 2821
Graphics Design Multimedia/Internet
3 Credits
Introduces graphic design for the Internet and multimedia projects. Focus is on instructional design process, effective page design, and scanning techniques. Students will use digital imaging software such as PhotoShop to create effective computer screen design elements. Color theory and visual communication is introduced.
Prerequisite: CGS 1000

CGS 2822
Web Site Creation
3 Credits
This course is designed to introduce the student to software application tools necessary to create a Web site. The student will use and apply a Web site creation program such as FrontPage, Dreamweaver, Cold Fusion, etc. They will have the opportunity to develop a Web site from initial concept to publication.
Prerequisite: CGS 2820

CGS 2827
Advanced Graphic Design Multimedia/Internet
3 Credits
A continuation of CGS 2821. Focus is on advanced graphic design techniques. Students use digital imaging software to prepare graphics for use in effective design elements.
Prerequisites: CGS 2821
CGS 2874
Multimedia Authoring II
3 Credits
A continuation of CGS 1871 Multimedia Authoring I, with emphasis on advanced authoring skills. Students will develop in-depth projects using video, audio, text, hypertext, and graphics while controlling the program direction.
Prerequisites: CGS 1871

CGS 2876
Digital Audio/Video Design
3 Credits
Introduces the student to the essential software, tools, and techniques commonly used by Web and multimedia designers to produce digital audio and video. Various audio/video programs such as Real Player, MusicMatch, CakeWalk, Adobe Premiere, and After Effects may be used in this course.
Prerequisite: CGS 1871

CGS 2877
Digital Animation Design
3 Credits
Introduces the student to the essential software, tools, and techniques commonly used by Web and multimedia authors and designers to produce digital animation effects. Various animation programs such as gif animators, 3D animation applications, Adobe Fireworks, Flash, and Shockwave may be used in this course as well as multimedia authoring programs such as Adobe Director or Toolbook.
Prerequisites: CGS 1871

CGS 2939
Internet Services Technology Capstone
3 Credits
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project-based experience. The student's project requirements will be designed in concern with his/her area of curriculum emphasis. Permission from instructor required.

CGS 2940
Web Technology Internship
3 Credits
A coordinated work-study course involving class work and field experience. Students will participate in hands on activities by assisting with web page development and/or web server implementation. Objectives determined by the student and faculty/coordinator will be used to evaluate the student. This should be one of the last courses the student takes in the Internet Services Technology A.S. Degree program. The student will attend a minimum of 3 clock hours per week in the internship experience.

CGS 2942
Database Services Internship
3 Credits
A coordinated work study course involving class work and field experience. Students will participate in hands-on activities by assisting with database design and development. Objectives determined by the student and teacher coordinator will be used to evaluate the student. This should be one of the last courses the student takes in the Database Technology A.S degree.
Prerequisites are determined by the instructor.

CHD 1800
Introduction Early Childhood Administration
3 Credits
Designed to provide potential and current early child administrators with the opportunity of satisfying one of the educational requirements for the Foundational Level Child Care and Education Administrator Credential and one of the three courses required for the Level Two Administrator Credential as defined by the State of Florida. It is intended to introduce the needed skills and information in the following areas: developmentally appropriate childcare environments, leadership for childcare settings, financial and legal issues of childcare, and developmentally appropriate education curriculum.
Prerequisites: High School Diploma or equivalent, 30 hour Florida Introduction Child Care Course, 10 hours DAP Special Needs, CDA or equivalent.

CHM 1020C
Chemistry and Society
3 Credits
A study of how chemicals directly affect our lives, including drugs, biocides, food additives, detergents, cosmetics, and plastics. Laboratory experimentation will be included. A special fee will be charged for this course.
Prerequisites: College level reading, writing and math skills are required.

CHM 1025
Introductory Chemistry
3 Credits
Covers an elementary treatment of mathematical tools of the chemist, atomic theory, periodic arrangement of the elements, chemical bonding, nomenclature of compounds, chemical reactions, and stoichiometry. Designed for students with no chemistry background.
Prerequisites: College level reading, writing and math skills are required.
Corequisite: CHM 1025L

CHM 1025L
Introductory Chemistry Lab
1 Credit
 Accompanies CHM 1025. Topics include laboratory techniques, measurement, chemical reactions, abbreviated qualitative analysis, and quantitative chemistry techniques. College level reading, writing and math skills are required. A special fee will be charged for this course.
Prerequisites: College level reading, writing and math skills are required.
Corequisite: CHM 1025
CHM 1032
Chemistry for Health Sciences
3 Credits
A chemistry course designed for allied health programs. Focuses on basic chemical and physical principles applied to the life process. Topics include inorganic, organic, and physiological chemistry. Mathematics applications are minimal.
Prerequisites: College level reading, writing and math skills are required.
Corequisite: CHM 1032L

CHM 1032L
Chemistry for Health Sciences Lab
1 Credit
Accompanies CHM 1032. Topics include laboratory techniques, measurement, chemical bonding, radioactivity, gases, and examples of common inorganic, organic, and biological reactions.
Corequisite: CHM 1032

CHM 2045
General Chemistry I
3 Credits
First part of a two-semester sequence. Topics include advanced treatment of stoichiometry, atomic theory, chemical bonding, liquid, solid, and gaseous behavior, solutions and thermochemistry. College level reading, writing and math skills are required.
Prerequisites: CHM 1025 or satisfactory grade on the chemistry placement test and MAC 1105.
Corequisite: CHM 2045L

CHM 2045L
General Chemistry I Lab
1 Credit
Accompanies CHM 2045. Topics include analytical techniques, physical property determinations, gas laws and thermochemical processes. College level reading, writing and math skills are required. A special fee will be charged for this course.
Corequisite: CHM 2045

CHM 2046
General Chemistry II
3 Credits
Second part of a two-semester sequence. Topics include liquid and solid behavior, physical properties of solutions, kinetics, chemical equilibria, electrochemistry and chemical thermodynamics. College level reading, writing and math skills are required.
Prerequisite: CHM 2045 and CHM 2045L with a minimum grade of C.
Corequisite: CHM 2046L

CHM 2046L
General Chemistry II Lab
1 Credit
This course accompanies CHM 2046. Topics include spectrophotometric determinations, chemical kinetics, electrochemistry, inorganic qualitative analysis and chemistry equilibria. College level reading, writing and math skills are required. A special fee will be charged for this course.
Prerequisite: CHM 2045L
Corequisite: CHM 2046

CHM 2132C
Chemical Instrumentation
3 Credits
An introduction to a variety of chemical analysis methods and corresponding instrumentation commonly employed in a chemical laboratory or industry setting. The course will combine lecture/discussion with chemical laboratory experiences to give both a foundation in the principles behind the methods and extensive hands-on laboratory experience geared to the workplace. Fundamentals of instruments are demonstrated but the emphasis is placed on the applications in which the instruments are used.
Prerequisites: CHM 2046, CHM 2046L

CHM 2210
Organic Chemistry I
4 Credits
First part of a two-semester sequence. Focus is on the chemistry of hydrocarbons. Topics include nomenclature, chemical bonding, synthetic methods, characteristic reactions, spectroscopic analyses, reaction mechanisms and structure determinations. College level reading, writing and math skills are required.
Prerequisites: CHM 2046, CHM 2046L
Corequisite: CHM 2210L

CHM 2210L
Organic Chemistry I Lab
1 Credit
Accompanies CHM 2210. Topics include organic separations, synthesis, spectroscopy, chromatography and identification of organic compounds. College level reading, writing and math skills are required. A special fee will be charged for this course.
Prerequisites: CHM 2046, CHM 2046L
Corequisite: CHM 2210

CHM 2211
Organic Chemistry II
4 Credits
Second part of a two-semester sequence. Focus is on the chemistry of hydrocarbon derivatives. College level reading and math skills are required.
Prerequisites: CHM 2210, CHM 2210L
Corequisite: CHM 2211L
CHM 2211L  
Organic Chemistry II Lab  
1 Credit  
Accompanies CHM 2211. Topics include the analysis of NMR spectra, multi-step synthesis and organic qualitative analysis. College level reading and math skills are required. A special fee will be charged for this course.  
Prerequisite: CHM 2210L  
Corequisite: CHM 2211

CIS 1931  
Microcomputer Concepts  
3 Credits  
Focuses on using microcomputers to solve business problems, evaluate personal computers and software, and complete a wide range of office tasks.

CIS 2321  
Systems Analysis  
3 Credits  
Focuses on the systems development life cycle, with an emphasis on identifying and assessing system requirements, analyzing and designing new systems in relation to use in business.  
Prerequisites: CGS 2301, CGS 2541

CIS 2352C  
Ethical Hacking I  
3 Credits  
Hands-on course teaches students how to hack into information systems using ethical standards. The student will learn system and network penetration testing, the tools and techniques used to exploit vulnerabilities such as social engineering, buffer overflows, etc., and how to defend against attacks.  
Suggested prerequisite: CTS 2301  
Prerequisite: CNT 1401

CIS 2353  
Security Management and Computer Auditing  
3 Credits  
In this course the student will learn the steps necessary to perform a computer audit. The student will create an audit project plan based on various information technology scenarios and then practice performing fieldwork, analyzing data to draw conclusions and preparing an audit report offering recommendations.  
Suggested prerequisite: CTS 2301  
Prerequisite: CNT 1401

CIS 2359C  
Ethical Hacking II  
3 Credits  
Hands-on activities will study vulnerabilities in various operating systems such as Windows, Linux, Macintosh and mobile systems. Security of Web systems and servers will be explored. Penetration testing to secure the enterprise security structure will be performed. Forensics studies will be done to investigate potentially hacked systems.  
Prerequisite: CNT 1401

CIS 2381C  
Computer Forensics/Incident Response  
3 Credits  
The student will design and develop strategies for inspecting potentially corrupted servers, networks and workstations. In this hands-on course the student will practice detecting possible intrusion inspecting log files, tracking violators. Students will practice computer forensic exercises using detection tools and tracking methodologies. Suggested prerequisite: CTS 2301  
Prerequisites: CNT 1401

CIS 2939  
Computer Information Administration Capstone  
3 Credits  
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project-based experience. The student's project requirements will be designed in concern with his/her area of curriculum emphasis. Permission from instructor required.

CIS 2941  
Computer Information Internship  
3 Credits  
A coordinated work-study course involving class work and field experience. Students will participate in hands-on activities by assisting with PC support, help desk, and/or microcomputer specialist. Objectives determined by the student and teacher/coordinator will be used to evaluate the student. This should be one of the last courses the student takes in the Computer Administrator Information AS degree. Prerequisites determined by the instructor.

CIS 2945  
Information Technology Security Capstone  
3 Credits  
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project based experience. The student's project requirements will be designed in concern with his/her area of curriculum emphasis.  
Prerequisites: CIS 2353, CIS 2359C, CTS 2333

CJC 1000  
Introduction to Corrections  
3 Credits  
Provides an introduction to the historical, theoretical and objective understanding of crime, the offender and the correctional process in society. Topics include custodial procedures and theory, correctional treatment, and basic social systems in relation to crime problems.

CJC 2162  
Probation and Parole  
3 Credits  
Explores the history, functions, purposes and operations of community corrections programs within the criminal justice system which provide diversion, supervision and treatment of offenders. This course reviews the theories and practices of
probation and parole within a community setting. The principles and methods of probation and parole systems at federal, state and local levels, court procedures, the role of the probation and parole officers and their associates in the rehabilitation process will be covered.

CJC 2940
Criminal Justice Practicum – Basic Corrections Academy
9 Credits
Articulated credits granted to students who successfully completed an FDLE state mandated certification training program in law enforcement.

CJE 1000
Introduction to Law Enforcement
3 Credits
This course covers the history and philosophy of law enforcement in America including the organization and objectives of local, state and federal agencies. Areas covered will include contemporary problems facing modern law enforcement. The course will also cover the various approaches to modern law enforcement and the selection of and training of career officers to enforce the laws in a democratic society. Topics covered will include law enforcement as a balance of social, historical, political, legal, individual and organizational forces.

CJE 1640
Introduction to Criminalistics
3 Credits
This course explains and discusses the crime laboratory and its procedures, functions and duties. Crime scene procedures and techniques for locating, preserving and security evidence will also be discussed. Selected laboratory techniques and procedures such as comparison and identification of tool markings, blood, hair, fibers, drugs, chemicals, photographs, firearms, ballistics and documents will be explained.

CJE 1642C
Introduction Crime Scene Technology
3 Credits
This course explains and discusses the basic scientific techniques used in criminal investigation with emphasis on the role of the crime scene investigator. This course will focus on such areas as recording the crime scene, collecting and preserving physical evidence, and the examination of evidence. The techniques used by the crime scene investigator to collect, protect, process, and analyze crime scene evidence will be explored.

CJE 1643C
Advanced Crime Scene Technology
3 Credits
This course explains and discusses advanced principals and theories in crime scene technology. This course will cover specialized collection procedures for biological evidence, weapons, traffic crash evidence, arson evidence; gunshot residue, blood spatter and bodies.
Prerequisites: CJE 1640, CJE 1642C

CJE 1653
Crime Analysis and Intelligence
3 Credits
This course involves an introduction to the field of crime analysis. The course will provide the student with an overview of basic criminal intelligence and investigative analysis techniques in modern law enforcement. The course will include geographic information systems and crime mapping techniques.

CJE 1680
Introduction to Computer Crime
3 Credits
Provides the student with an overview of crimes involving the use of computer technology and the Internet. It will cover how computer related crimes are committed and how they are investigated. Topics covered will include computer crime scene management and the legal issues involved in the prosecution of computer crimes.

CJE 2004
Career Choices Criminal Justice
1 Credit
This course will expose the students to the diversity of requirements and career opportunities within the criminal justice system. This course will provide the students with an understanding of the different agencies within the criminal justice system including police, courts and corrections. This course will cover all levels of agencies including city, county, state and federal. The course will also cover careers related to criminal justice including juvenile justice, private investigation and security, and bail bonds agents. The course will cover the roles of these agencies and employment opportunities. The course will also provide students with information on law enforcement academies and strategies for job searching, resumes and job interviews.

CJE 2170
Comparative Police and Criminal Justice Systems
3 Credits
This course will survey contemporary foreign law enforcement and criminal justice systems. This course will compare and contrast selected foreign systems with those of the United States. This course will include a study of the operational and philosophical differences between the various cultural and legal systems studied.

CJE 2233
Drug Abuse and Crime
3 Credits
This course will introduce students to the negative effects of drugs, alcohol, and other substance abuse. This course will cover the problems created by the illegal use of narcotics and other dangerous substances and its relationship to criminal behavior. This course will emphasize the criminal implications and control of drug and substance abuse as well as touching on the social and historical implications.
CJE 2300
Police Administration and Organization
3 Credits
Provides an introduction to the principles of law enforcement, organization and supporting services as they apply to staff functions, personnel recruiting, training, promotions, planning, research, inspection, control, and policy formation. Topics include functions of patrol, criminal investigation, vice control units, juvenile bureau, intelligence, sections, detention facilities, supply and transportation.

CJE 2400
Community Relations
3 Credits
Focuses on the relationship of criminal justice agencies to the community and how social change affects law enforcement, corrections and the courts.

CJE 2600
Criminal Investigation
3 Credits
Covers methods of investigation, interviews, interrogation, electronic equipment, surveillance and sources of information, with an emphasis on case preparation and problems in criminal investigations.

CJE 2603
The investigative Cycle from Crime Scene to Court
3 Credits
The course covers the evidence and investigative cycle, from processing the crime scene, to testimony about the evidence. It first examines the fundamentals of protecting and processing crime scenes and the handling of evidence. Students then would become familiar with the components of the investigative report. The course would then cover how the evidence and testimony are presented in the courtroom.

CJE 2614
Serial Killers
3 Credits
This course involves an examination of serial killers and mass murderers, including the history, profiling of the offenders, and techniques for the investigation. Special issues that will be covered include media coverage and punishment.

CJE 2664
Advanced Crime and Intelligence Analysis
3 Credits
This course is an advanced course in crime and intelligence analysis. The course will build upon the principles learned in CJE 1653 and will give the student an in-depth look into crime analysis computer applications and GIS mapping software. Prerequisite: CJE 1653

CJE 2671C
Latent Fingerprint Development
2 Credits
This course explains and discusses the techniques involving detection, enhancement and recovery of latent fingerprints from physical evidence. This course will cover mechanical and chemical methods and surfaces will be analyzed and evaluated for application in both theory and practice.

CJE 2672C
Fingerprint Classification
2 Credits
This course explains and discusses the Henry modified system of fingerprint classification. This course will deal with all aspects of fingerprint classification, identification, and filing systems and will prepare the student to conduct inked fingerprint examinations.

CJE 2770C
Forensic Photography
3 Credits
This course explains and covers basic crime scene photography skills, including camera operation, exposure control, proficiency in relational photos, and flash control for crime scene and evidentiary documentation. The course will also cover special light sources and the use of filters, specialized equipment, digital cameras, and hand held video camera recorders.

CJE 2940
Criminal Justice Practicum – Basic Policy Academy
12 Credits
Articulated credits granted to students who successfully completed an FDLE state mandated certification training program in law enforcement.

CJJ 1002
Juvenile Delinquency
3 Credits
Focuses on the history, nature, causes and scope of juvenile crimes with an examination of the justice system and treatment facilities.

CJJ 1004
Introduction to Juvenile Justice
3 Credits
This course will examine juvenile delinquency and the juvenile justice system including its legal and social history, its definitions and procedures, and an assessment of delinquency prevention and control.

CJL 1000
Introduction to Law and Legal Issues
3 Credits
This course will cover the evaluation, debate, and critical analysis of law and legal issues that affect individuals, their families, ad communities. Students will learn about practical aspects of criminal, civil, and constitutional law as well as domestic, immigration, and consumer law in a diverse society. The course will use case studies, simulated legal exercises, small group exercises, and analytical thought problems.
CJL 1062
Constitutional Law
3 Credits
Provides an in-depth study of criminal law, with an emphasis on the role of the Supreme Court and constitutional law as it applies to law enforcement and civil rights.

CJL 1070
Legal Rights of Prisoners
3 Credits
Survey the legal rights of inmates in correctional facilities, with an emphasis on specific cases and decisions affecting correctional practices.

CJL 1100
Criminal Law
3 Credits
Focuses on the classification and analysis of criminal acts, such as homicide, rape, assault, robbery, larceny, burglary, and auto thefts, with an emphasis on specific cases and selected court decisions. Topics include court organization, court orders, writs, warrants, and other papers.

CJL 1500
Introduction to the Court System
3 Credits
This course examines the history, traditions and philosophy of the American court system. Emphasis will be placed on the roles of the prosecutor, the judge, the defense attorney, the jurors, the defendants and the public. The course will focus on the general themes of law on the books, law in action and law in controversy. Course content will include an overview of the structure and operations of the court system with special emphasis on the Florida Court System.

CJL 2072
Civil Rights Liability in Criminal Justice
3 Credits
This course will provide students with an overview of federal civil rights legislation and state federal tort law as it applies to criminal justice. Topics covered will include practitioner and supervisor liability, 1983 actions, 241 crimes, wrongful death actions, and various personnel laws including ADA, EEOC, age and sex discrimination and sexual harassment.

CJL 2130
Criminal Evidence and Procedure
3 Credits
Provides an introduction to criminal procedures such as arrest, search and seizure, use of force and handling evidence. Topics include the legal use and degree of force, rights of suspects and arrested persons, types of evidence, admissibility, proof and competence of evidence as related to criminal law and recent court decisions.

CJL 2202
Legal Research in Criminal Justice
3 Credits
This course covers the historical development of criminal law and case precedent. The course will emphasize the development and study of case law and criminal statutes and the significance of law as a social force. The course will emphasize how to read and evaluate cases and how to do legal research.

CJL 2400
Criminal Court Litigation
3 Credits
This course involves the practical observation and study of the criminal trial process through lecture, readings, and direct observation of criminal trials. Students will study the various aspects of the criminal court process from arrest through conviction and sentencing. Course topics will include bail and pre-trial incarceration, discovery and other pre-trial procedures, prosecutorial discretion, plea bargaining and the conduct of trial proceedings.

CJL 2610
Courtroom Presentation of Science Evidence
3 Credits
This course explains and discusses how to present physical, documentary, and scientific evidence in the courtroom. The course will cover proper dress, speaking, listening, and stress. The student will understand how to present courtroom testimony, especially in areas of scientific evidence. The course will also include how to prepare and present visual aids and exhibits collected at crime scenes. The course will include mock trial exercises.

CLP 1000
Psychology of Personal Growth
3 Credits
Covers the origin and development of individual needs and personality patterns, approaches to self management, and self control and assessment of personal value systems. Emphasis is on personal awareness and experientially based activities. Is not acceptable as a prerequisite for other psychology courses.

CLP 2001
Advanced Psychology Personal Growth
3 Credits
An existential experimental approach to human behavior which focuses on awareness of ourselves, effective communication and problem solving skills involved in human interactions.
Prerequisite: CLP 1000

CLP 2140
Abnormal Psychology
3 Credits
This course examines the historical and current perspectives of the science of abnormal behavior. Topics include classification, diagnosis, theories, assessment methods, treatment, prevention, and legal and ethical issues. The course will also discuss the importance of empirically-based treatments. The impact of mental illness on the individual, family, and society are explored. Permission from instructor required.
Prerequisites: PSY 2012, College level reading and writing skills are required.
CNT 1401
Introduction to Network Security
3 Credits
Basic computer and network security theory, concepts and terminology are presented. The CIA triad, basic threats, intrusion techniques, vulnerabilities and their various countermeasures are included. Students will also discuss ethical behaviors and basic security practices for authentication, encryption and secure network topologies.
Prerequisites: CET 1600 or CTS 1305

CNT 2510
Wireless Networking
3 Credits
This course presents an overview of common wireless technologies such as 802.11a, 802.11g, 802.11g, cellular, PCS, Infrared, and Bluetooth, including theories, concepts of their operation, installation, and basic troubleshooting. Basic computing and common wireless technologies such as analog, AMPS, CDMA, TDMA GSM, 2G, 3G, PCS and ESMR are discussed as well as new trends as they develop. Wireless local area networks and integration with wired networks are also included.
Prerequisite: CTS 1305

CNT 2941
Networking Services Internship
3 Credits
A coordinated work-study course involving class work and field experience. Students will participate in hands-on activities by assisting with network support, and networking installation and development. Objectives determined by the student and teacher/coordinator will be used to evaluate the student. This should be one of the last courses the student takes in the Networking Services Administrator AS degree.
Prerequisites: Determined by the instructor.

COP 1000
Programming Logic
3 Credits
Introduces programming logic, with an emphasis on problem definition, flow charts, tables, control breaks, and multi-record single processing programs. Topics include read process writeloops, array creation and retrieval, and documentation standards.
Prerequisite: CGS 1000

COP 1220
Programming in "C"
3 Credits
Introduces programming in the "C" language with an emphasis on basic input/output functions. Topics include interactive programming, style and methodology, top-down design and structured programming.
Prerequisite: COP 1000.

COP 1332
Visual BASIC, Beginning
3 Credits
Provides a basic overview of Windows programming and applications. Students enrolled in a degree or college credit certificate program must complete all prerequisites.
Prerequisite: COP 1000

COP 1812
Introduction XML Authoring
3 Credits
This course teaches students how to use XML to create customized tags for Web pages and to work effectively with XML. Students will develop Web sites integrating XML into their projects.
Prerequisite: COP 1000

COP 1821
Visual BASIC, Advanced
3 Credits
Advanced course focusing on the development of Windows applications using an event driven programming system. Topics include arrays, data structures, and developing PEN applications.
Prerequisite: COP 1332

COP 2224
Programming in C++
3 Credits
Basic C++ programming with a survey of advanced C++ topics, including inheritance, generics (templates), modular and object-oriented programming, dynamic memory, using the standard library, and proper programming best practices including an introduction to design, testing, documentation, and deployment. Course focuses on how C++ is used for systems and embedded programming.
Prerequisites: COP 1000, and either COP 1220 or COP 2360

COP 2344
Shell Scripting
3 Credits
This course is intended for students who have mastered the basic Linux/Unix operating environment and who would like to read and understand the various administrative scripts, and to write scripts to automate day to day tasks. This course is designed to teach students skills they need to effectively read, write and debug shell scripts. This course explores in detail the ash shell scripting language. Major topics covered include
reading, writing, modifying, and debugging shell scripts, the shell environment, regular expressions, text filtering with grep, sed, and the awk commands, conditional control statements and loops, interactive scripts, the use of other shell features such as variables, parameters, argument lists, shell functions, shell traps.
Prerequisites: COP 1000, CTS 1106

COP 2360  
Programming in C#  
3 Credits  
An introductory course to programming in the C# language. Emphasis is placed on the basic data, methods and classes of the C# language. Additionally, object oriented programming concepts will be introduced. Programming style and object oriented methodology will be stressed throughout the course.  
Prerequisite: COP 1000

COP 2654  
iPhone/iPad/iPod Touch Applications Development  
3 Credits  
This is an introductory course in application development for iPhone, iPad, and iPod Touch devices. Students will use the iOS Software Development Kit (SDK) and the Objective-C programming language to develop applications for iOS platforms. Students will study the fundamental design patterns designed by iOS applications as well as the role of objects in an iOS application. Students will also learn how to provision applications for both Ad Hoc as well as Apple App Store distribution.  
Prerequisite: COP 1220 or COP 2224 or COP 2360 or COP 2800

COP 2800  
JAVA Programming  
3 Credits  
Introduces programming in JAVA. Focus is on object oriented programming to create stand alone applications for enhancing Web pages.  
Prerequisite: COP 1000 or permission of instructor.

COP 2805  
JAVA Advanced  
3 Credits  
A continuation of COP 2800. The focus is on the development of client-server applications, applets, and advanced GUI. Topics include advanced object orientated programming in Java, multi-threading, files, multimedia, database use, and networking concepts used for client server applications.  
Prerequisite: COP 2800

COP 2830  
Scripting for the Web  
3 Credits  
Introduces scripting languages used to enhance WEB documents. Focus is on the use of scripts and how they relate to the Web environment. Students will develop applications using a scripting language such as Visual Basic, Java Script, and/or Perl.  
Prerequisites: CGS 2820, COP 1000

COP 2833  
Database-driven Web Programming: Client  
3 Credits  
The student will be introduced to techniques for coding Web pages that interact with back-end databases. The emphasis in this class is to develop code that runs on the client computer and to develop techniques for balancing the client-side code with server-side code. Topics covered will be specific programming language fundamentals and logic, and an introduction to data maintenance using data manipulation coding techniques. Other topics include writing secure Web code, error handling and data validation.  
Prerequisite: COP 2836, Database-driven Web Programming: Server

COP 2836  
Database-driven Web Programming: Server  
3 Credits  
The student will be introduced to techniques for coding Web pages that interact with back-end databases. The emphasis in this class is to develop code that runs on back-end servers with back-end database. Topics covered will be specific programming language fundamentals and logic, and an introduction to data maintenance using data manipulation code such as SQL, as well as an introduction to back-end DBMS concepts and terminology. Other topics include writing secure Web code, error handling and data validation.  
Prerequisites: CGS 2820, COP 1000

COP 2939  
Computer Programming Capstone  
3 Credits  
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project-based experience. The student's project requirements will be designed in concern with his/her area of curriculum emphasis.  
Permission from instructor required.

CRW 1001  
Creative Writing I  
3 Credits  
Focuses on analyzing creative writing through class discussions and readings. Works by students and others will be critiqued. Participation on the staff of the College's literary magazine is encouraged. Prerequisite waiver by permission of instructor required.  
Prerequisite: ENC 1101

CRW 1001H  
Honors Creative Writing I  
3 Credits  
Same as CRW 1001 with honors content. Further critical analysis of both the student's own writing and the wiring of others combined with the readings and discussion of the process of creative writing. Honors Institute permission required.  
Prerequisites: ENC 1101 or ENC 1101H
CRW 1002
Creative Writing II
3 Credits
Further critical analyses of both the student's own writings and the writings of others combined with the readings and discussions of the process of creative writing. Continuation of the skills developed from CRW 1001. College level reading and writing skills are required.
Prerequisite: CRW 1001

CRW 1002H
Honors Creative Writing II
3 Credits
Same as CRW 1002 with honors content. Further critical analysis of both the student's own writing and the writing of others combined with the readings and discussion of the process of creative writing. Continuation of skills developed from CRW 1001H. Honors Institute permission required.
Prerequisite: CRW 1001 or CRW 1001H or permission of instructor.

CTS 1106
Introduction to Unix
3 Credits
This course is designed to teach the Unix operating system. Emphasis will be on the Unix utility commands, the kernel software, and the shell programs. The two Unix text editors will be covered. This course will be project oriented. Additional topics include Linux and using the X Window GUI.
Prerequisite: CGS 1000

CTS 1302
Microsoft Windows Applications Infrastructure
3 Credits
Provides students with the knowledge and skills necessary to design a MS Windows applications infrastructure in an enterprise network. In addition, this course provides the skills and knowledge necessary to manage and install Web services infrastructure, Windows media server, Microsoft Windows SharePoint Services server, and Windows Server 2008 Terminal Services Remote App.
Prerequisite: CTS 1306 or permission of instructor.

CTS 1303
Microsoft Windows Configuring Active Directory
3 Credits
This course is designed to provide students with the knowledge and skills necessary to install, configure and administer Microsoft Windows directory services in an enterprise environment.
Prerequisite: CTS 1327 or permission of instructor.

CTS 1305
Introduction to Networking
3 Credits
Introduces the students to the basics of local area networks. Provides an overview of networking, including a history of development and the uses and benefits of networks. Students are introduced to major network components with a discussion of critical selection considerations. Covers the prerequisite concepts necessary for the Microsoft program and will provide background information for the Cisco certification program.
Prerequisites: CGS 1000 or permission of instructor.

CTS 1306
Microsoft Windows Server Configuring Network Infrastructure
3 Credits
This course provides students with the knowledge and skills necessary to manage and install network services and resources, such as messaging, file and print services, a firewall, the Internet, an intranet, remote access, and to support a network infrastructure that uses the MS Windows Server products.
Prerequisite: CTS 1303 or permission of instructor.

CTS 1327
MS Windows Client Operating System
3 Credits
This course is to provide individuals who are new to MS Windows with the knowledge necessary to understand and identify the tasks involved in supporting Windows networks. This is an introductory course designed to provide an overview of client operating system concepts. Students should have a working knowledge of the MS Windows interface.
Prerequisite: CTS 1305

CTS 1328
MS Windows Server
3 Credits
This course provides students with the knowledge and skills necessary to install and configure MS Windows as a small to mid-sized domain. In addition, this course provides the skills and knowledge necessary to manage the server operating system, directory services, software distribution, and updates.
Prerequisite: CTS 1302

CTS 1330
Implementing and Supporting MS Exchange Server
3 Credits
This course provides Microsoft Exchange Server support professional with in-depth product information on installing, configuring and administering exchange server.
Prerequisite: CTS 1306

CTS 1342
MS Windows Enterprise Administrator
3 Credits
Provides students with the knowledge and skills necessary to plan for large-scale network and application services. The enterprise administrator is responsible for infrastructure design and global configuration. Thus, the student will learn how to design Active Directory forests, domains and IT administrative structure while planning for business continuity.
Prerequisite: CTS 1303
CTS 2203
Introduction Adobe Acrobat
1 Credit
Provides students with the knowledge and skills necessary to create, post to the Internet, and distribute PDF files.
Prerequisite: CGS 1000

CTS 2301
Unix/Linux Administration I
3 Credits
This course is a continuation of CTS 1106 (Introduction to Unix). The focus is hands-on Linux system administration. Topics include system administration concepts, system installation and configuration. Additional topics include understanding the Unix file system, configuring basic system hardware and services, managing user accounts, basic system security and backups. Major Unix variants will also be covered. This course continues with CTS 2322, Unix/Linux Administration II. Student must have prerequisite or permission of instructor.
Prerequisite: CTS 1106

CTS 2310
Windows Security
3 Credits
The student will design and develop strategies for securing a windows-based network both server and workstation. In this hands on course the student will practice implementing security on windows servers to include configuring security for application servers and administration servers. Students will practice using monitoring, auditing and performance tools.
Prerequisite: CNT 1401

CTS 2311
Unix/Linux Security
3 Credits
This course covers the concepts and administration of system and network security on Unix and Linux systems. Students will gain the skills needed to protect Unix and Linux servers from various types of threats. Students will understand, plan and implement security on Unix servers including developing security policies, local system security, network security, monitoring systems and networks, basic firewall setup and the use of various security related tools (e.g., PAM, sudo). College level reading and writing skills are required.
Prerequisite: CTS 2322

CTS 2322
Unix/Linux Administration II
3 Credits
This course is a continuation of CTS 1106 (Unix Administration I). The focus is on Unix and Linux administration. Topics include creating shell scripts and using scripting tools, software development tools (such as 'make' and RCS/CVS), managing documentation and creating 'man' pages with 'nroff', configuring services including email, printing, file sharing, logging, DNS and FTP. Also covered will be building and configuring custom kernels, kernel modules, patching and updating the kernel and applications, and basic system security. Student will gain hands on experience installing, configuring and using Linux.
Prerequisite: CTS 2301

CTS 2333
Unix/Linux Networking
3 Credits
This course covers the concepts and administration of networking services on Unix and Linux systems. Topics include Windows network integration with SMB (Samba), DNS, email services and other common network services such as DHCP, FTP, LDAP and NTP (network time protocol). Students will receive basic network concepts such as network models and LANs, IPv4, IPv6 and PPP. Students will also gain hands-on experience with basic network security, and network configuration and troubleshooting using common network management tools.
Prerequisites: CTS 1305, CTS 2322. College level reading and writing skills are required.

CTS 2440
Database Programming - SQL
3 Credits
This course covers the concepts of both relational and object relational databases using the SQL programming language. Students are taught to create and maintain database objects and to store, retrieve and manipulate data. Students learn to retrieve data by using advanced techniques, grouping operations and navigational retrieval. They also learn to write SQL queries to generate report-like output. Hands-on practice using assigned projects reinforce the fundamental concepts.
Prerequisite: CGS 2541

CTS 2441
Database Administration I
3 Credits
Provides students with the knowledge and skills required to install, configure, administer and troubleshoot a specific database management system (DBMS) in a client/server environment. Topics such as backing up and restoring a database, as well as scheduling, monitoring and performance will be covered. Sizing database objects such as tables and indexes will be covered, as well as database securities. The course may be repeated one time for purposes of preparing the student as an administrator on a second database platform. Permission of instructor is required.
Prerequisite: CGS 2541

CTS 2442
Database Administration II
3 Credits
Provides students with the knowledge and skills required to install, configure, administer and troubleshoot a specific database management system (DBMS) in a client/server as well as web based environment. Topics such as complex restoring of a database will be covered. Advanced concepts such as data warehousing, data mining and transaction processing will be covered. The course may be repeated one time for purposes of
preparing the student as an administrator on a second database platform. Permission of instructor is required. 
Prerequisite: CTS 2441

**CTS 2445**
**Database Programming Advanced**
3 Credits
This course covers advanced coding concepts of a specific DBMS. For example, if the student is studying MS Access, this course covers coding using Visual Basic for Applications (VBA). If the student is studying MS SQL Server, this course introduces advanced concepts using Transact SQL (TSQL). If the student is studying Oracle DBMS, the student will code in PL/SQL. Students will be taught to code programs to perform error handling and create triggers. Students will program stored procedures and custom functions, and learn to call those reusable programs. The course may be repeated one time for purposes of preparing the student as an administrator on a second database platform. Permission of instructor is required.
Prerequisite: CTS 2440

**CTS 2939**
**Database Technology Capstone**
3 Credits
The capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to the degree core competencies and outcomes. The course is designed as a project based experience. The student’s project requirements will be designed in concern with his/her area of curriculum emphasis. Permission from instructor required.

**DAA 1100**
**Modern Dance Basics for Non-Majors**
1 Credit
Modern Dance Basics is a studio course designed to introduce students with no training to the basic concepts of modern dance. The emphasis in this class will be placed upon attaining correct body alignment, learning the positions of the arms and feet, and the use of time, space, weight and energy. Students will learn basic dance vocabulary while developing flexibility, strength and musicality. This is a studio course and may be repeated 2 times for credit.

**DAA 1101**
**Modern Dance I**
2 Credits
Elementary level modern dance training is for those with entry level skills in modern dance. The course will offer students the opportunity to develop an understanding of the basic principles and concepts of modern dance technique through several movement experiences and explorations. Students explore and develop awareness of body alignment, dance vocabulary, self awareness, coordination, strength and musicality. Attendance at and written critiques of dance performances provide an enhanced view of the scope of the dance field. This course may be taken twice for credit.

**DAA 1102**
**Modern Dance Basics for Pre-Majors**
1 Credit
Modern Dance Basics is a studio course designed to introduce students who plan to further pursue dance with a foundation knowledge of modern dance. The emphasis in this class will be placed upon attaining correct body alignment, the use of time, space, weight and energy and the ability to accurately learn dance combinations and phrase work. Students will learn dance vocabulary while developing flexibility, strength and musicality. This is a studio course and may be repeated 2 times for credit.

**DAA 1104**
**Modern Dance II**
2 Credits
This studio course will serve as a continuation of Modern Dance I and will further explore basic principles of modern dance technique. It will broaden students’ awareness of dance concepts such as momentum, weight shift, rebound and release. It will further develop dance vocabulary, body alignment, and develop an introductory framework for dance aesthetics. Attendance at and written critiques of dance performances will provide deeper insight into the dance field. This course may be taken twice for credit.
Prerequisite: Audition or Instructor Permission

**DAA 1200**
**Ballet I**
2 Credits
Elementary level ballet training for those with entry level skills in ballet. Emphasis is on correct placement and alignment of the body, a knowledge of basic ballet terminology, and the development of spatial awareness as it applies to the execution of ballet exercises, positions and steps. Attendance at written critiques of dance performances provide an enhanced view of the scope of the dance field. This is a studio course and may be repeated twice for credit.
Prerequisite: Audition or Instructor Permission

**DAA 1201**
**Ballet Basics for Non-Majors**
1 Credit
Ballet Basics is a studio course designed to introduce students with no training to the basic concepts of ballet technique. The emphasis in this class will be placed upon attaining correct body alignment, learning the positions of the arms and feet, and the understanding of the sequence of the ballet class. Students will learn basic dance vocabulary while developing strength and musicality. This is a studio course and may be repeated 2 times for credit.
DAA 1202
Ballet Basics for Pre-Majors
1 Credit
Ballet Basics is a studio course designed to introduce students who plan to further pursue dance with a foundation knowledge of ballet. The emphasis in this class will be placed upon attaining correct body alignment, positions of the arms and legs, and ability to properly execute ballet steps. Students will learn ballet vocabulary while developing flexibility, strength and musicality. This is a studio course and may be repeated 2 times for credit.

DAA 1204
Ballet II
2 Credits
Ballet II is a continuation of Ballet I. Student experiences an intensification of barre work through the use of more complex coordination of the arms and legs. Intensified center work includes more complex floor patterns to develop the use of space in movement sequences. Introduction to steps requiring an advanced beginning expertise in ballet. Leotards, tights and ballet shoes are required. Attendance at and written critiques of dance performances will provide deeper insight into the dance field. May be repeated for credit for a maximum of 4 credit hours.

DAA 1610L
Dance Composition I
2 Credits
This creative studio course examines basic tools of the choreographic craft. Students gain experience in structural movement from simple phrases to complex organizational units through motif development, exploration of shape, space, time, transitions and basic compositional forms. The student will explore solo, partner and group structures and use various devices to create their own artistic expressions. Reading, writing and critical analysis of dance included.

DAA 1680L
Dance Ensemble
1 Credit
This creative studio course provides an opportunity for dance performers to work in a repertory company and to explore the various devices and skills of ensemble performance. Culminates in a stage performance. This course is repeatable for elective credit.
Prerequisite: Audition required.

DAA 1900
Dance Practicum
1 Credit
This activity/analysis course provides for the expansion of the student’s range of expression and performance/production or pre-professional skills through a directed study experience. Working with a dance faculty advisor, the student will choose, refine, develop, document and present a project whose intent will be the increase of the student’s mastery of selected skills from the coursework attempted to date.
Prerequisite: Audition or consent of instructor.

DAA 1931-9
Special Topics in Dance
1 Credit
This course is designed to allow flexibility for presenting a variety of selected topics related to dance. Topics will require both an applied and theoretical approach. Examples of topics include: labanotation, technology, dance pedagogy, etc.

DAA 2105
Modern Dance III
2 Credits
This studio course is intended to further the understanding of the principles of modern dance technique through more complex exercises and exploration of movement dynamics while developing speed in movement analysis and synthesis. Intricate rhythmical structures and increased spatial awareness will challenge students. Continuing critical analysis will be expected, along with a sharpening of both the student’s overall dance knowledge and aesthetic understanding of the dance form. This course may be taken twice for credit.
Prerequisite: Audition or Instructor Permission

DAA 2106
Modern Dance IV
2 Credits
This studio course is a continuation of Modern Dance III. Emphasis is on expanding the technical training of the student by increasing complexity of movement capabilities. More emphasis will be placed spatial awareness, rhythmical structures, exploration and on partnering. Continuing critical analysis will be expected, along with a sharpening of both the student’s overall knowledge and aesthetic understanding of the dance form. The course will focus more attention on the student’s individual dance preparation. Attendance at and written critiques of dance performances will provide deeper insight into the dance field. This course may be taken twice for credit.
Prerequisite: Audition or Instructor Permission

DAA 2205
Ballet III
2 Credits
The continuation of ballet training at the beginning of the intermediate level. Emphasis is on strength and technical development through the skilled execution of intermediate level steps and center floor combinations. Uses the technical demands of ballet to further develop stamina and to increase expertise in spatial awareness. Attendance at and written critiques of dance performances increase the student observation and analytical skills.
Prerequisite: Audition or Instructor Permission

DAA 2206
Ballet IV
2 Credits
Ballet IV is a continuation of Ballet III. Student experiences an intensification of barre work through the use of more complex coordination of the arms and legs. Intensified center work includes more complex floor patterns to develop the use of space in movement sequences. Introduction to steps requiring an advanced beginning expertise in ballet. Introduction of pointe
work if student proficiency is met. Attendance at and written critiques of dance performances will provide deeper insight into the dance field. This course may be taken twice for credit. Prerequisite: Audition or Instructor Permission

**DAA 2500L  
Jazz Dance**  
1 Credit  
Jazz dance is a studio course designed to introduce the student to the historical development of modern jazz dance, its technique, and methods of expression through exercise, locomotion, and non locomotion. Emphasis is placed on technique, terminology, movement combination and historical information. This course may be taken twice for elective credit.

**DAA 2611**  
**Dance Improvisation**  
2 Credits  
Dance Improvisation is a studio course that challenges students to explore movement through spontaneous problem-solving. The course will evoke the students' creative individuality and sense of ensemble. Students are guided through a series of excises that uses sensorial and kinesthetic engagement. Essential tools of improvisation will be acquired. This course is repeatable twice for credit.

**DAN 1600C**  
**Music for Dance**  
2 Credits  
The study of music and its relationship to the dancer. In addition to basic rhythmic structures the student will learn to use them as a tool in teaching dance and in choreography. The student will further gain insight into the process of selecting appropriate music for various choreographic projects.

**DAN 1750**  
**Dance Conditioning**  
2 Credits  
Conditioning for strength, tone, flexibility and posture in dance in order to enhance optimal performance. The class serves as a laboratory for movement theory, body alignment and somatic techniques. May be repeated with a change of modality (i.e. pilates, Body Mind Centering, Yoga) up to six credits.

**DAN 2100**  
**Introduction to Dance**  
3 Credits  
A lecture/activity course devoted to the study of dance in its many cultural and societal contexts. The course is designed to heighten student awareness of an appreciation of the aesthetic, socio cultural, and vocational roles played by dancers from the art form's historical roots to contemporary trends. Reading, writing, critical analysis and some physical activity are included. Prerequisites: College level reading and writing skills are required.

**DEH 1002**  
**Dental Hygiene Instrumentation**  
1 Credit  
Dental Hygiene Instrumentation introduces the student to the theory and practical skills necessary for basic instrumentation. Laboratory sessions are included to demonstrate proficiency in utilizing dental hygiene instruments and dental charting. Additional topics that will be covered in lecture include professionalism and ethics, communication skills, asepsis and maintenance of hand instruments and hand pieces, patient assessment, oral prophylactic procedures, and dental charting. Credit for this course does not apply to the associate in arts degree. Corequisites: DEH 1002L, DES 1020C

**DEH 1002L**  
**Dental Hygiene Instrumentation Lab**  
2 Credits  
Dental Hygiene Instrumentation Lab introduces the student to the practical skills necessary for basic instrumentation. Laboratory sessions are included to demonstrate proficiency in utilizing dental hygiene instruments and dental charting. Additional topics that will be covered in laboratory include professionalism and ethics, communication skills, asepsis and maintenance of hand instruments and hand pieces, patient assessment, oral prophylactic procedures, and dental charting. Credit for this course does not apply to the associate in arts degree. Corequisites: DEH 1002, DES 1020C

**DEH 1130**  
**Embryology and Histology**  
1 Credit  
A comprehensive study of the embryonic, fetal, and postnatal development, and microanatomy of the cells and tissues that comprise the head, neck and oral cavity. Lecture topics include development and histology of the structures of the head, neck, and oral cavity; development and histology of teeth development and histology of the tooth supporting structures; and development and histology of orofacial structures. Credit for this course does not apply to the associate in arts degree. Prerequisite: DES 1020C

**DEH 1720**  
**Preventive Dentistry**  
1 Credit  
This is a one hour credit course designed to introduce the student to the practice and philosophy of preventive dentistry. The student will learn the roles of the dental hygienist, methods of dental biofilm control, formation of tooth deposits, stains, and dental caries, oral physiotherapy, inter dental care, oral health care products and the use of fluorides and sealants. Proper communication and behavior modification skills are emphasized to facilitate the role of the dental hygienist as an educator.
DEH 1800C
Clinical Dental Hygiene I
3 Credits
Clinical Dental Hygiene I is the first term for direct patient care. Students apply the principles and perform clinical activities for the prevention of oral disease, including data collection, prophylaxis, application of prevention agents, and oral home care instructions. This is a combined course with classroom interactions and clinical experience. Students are required to successfully complete a number of procedures. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 1002, DEH 1002L, DES 1800 and DES 1800L

DEH 1802C
Clinical Dental Hygiene II
2 Credits
DEH 1802C is a continuation of DEH 1800C. It is a combined course that provides discussion of clinical activities along with clinical experience. This is the second term for direct patient care. Students apply the principles and perform clinical activities for the prevention of oral disease, including patient assessment, treatment planning, scaling, debridement, root planning, application of preventive agents, oral irrigation and antimicrobial agents, treatment of hypersensitivity, and oral home care instructions. Additional topics include oral communication skills, instrument sharpening, pulp vitality testing, special needs patients, nutritional counseling, ultrasonics, and air polishing. Students are required to successfully complete a number of procedures. Credit for this course does not apply to the associate in arts degree.
Prerequisite: DEH 1800C

DEH 1811
Dental Ethics, Jurisprudence
1 Credit
This course is designed to provide knowledge of professional ethics and legal responsibilities, professional organizations, state and dental practice acts and continuing education regulations and requirements. Dental office management will be introduced to provide dental hygiene students with the business and professional skills necessary to practice in an office and/or alternate practice setting. Emphasis will be placed on the student's ethical and legal roles as a dental hygienist and on the business aspects of the profession. In addition, preparation for the National Board examination and test taking skills will be covered. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 2804C, DEH 2702
Corequisite: DEH 2702L

DEH 2300
Pharmacology and Oral Medicine
3 Credits
Pharmacology, oral medicine, anesthesiology, and dental emergencies introduces principles of basic pharmacology as they pertain to the practice of dentistry and dental hygiene. It emphasizes actions and reactions of medications commonly used in the dental office or taken by dental patients. Topics include terminology, pharmaceutical references, prescriptions and abbreviations, pharmacokinetics, drugs used in dentistry and their pharmacokinetics, drugs that may alter dental treatment and their pharmacokinetics, drugs used in dental emergencies, drug abuse, and nitrous oxide monitoring (as mandated in the Florida State Administrative Code Chapter 64B 14). Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 1802C, DEH 2400
Corequisites: DEH 2804C, DEH 2809

DEH 2400
General and Oral Pathology
3 Credits
General and Oral Pathology presents the principles of general pathology in relation to diseases of the teeth, soft tissue, and supporting structures of the oral cavity, as well as general pathologic conditions affecting the head and neck. Topics include terminology and diagnostic procedures, variants of normal conditions, benign conditions of unknown cause, inflammation and repair, caries and pulpal pathology, immune response, oral diseases with immunological pathogenesis, autoimmune diseases, infectious diseases, embryology of the head and neck, developmental disorders of the soft tissues and teeth, developmental cysts, neoplasia, odontogenic tumors, other tumors of oral structures, genetics, genetic syndromes and diseases of the head and neck, general pathologic conditions affecting the oral structures, TMJ disorders, and dental implants. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 1130, MCB 1000 and MCB 1000L
Corequisites: DEH 1800C, DEH 2602

DEH 2602
Periodontology
2 Credits
This course provides information on the principles of periodontology pertinent to dental hygiene practice. Topics include tissues of the periodontium, epidemiology of periodontal diseases, classification of periodontal diseases, disease prevention, disease treatment and management, drug therapy, immunology and host defense mechanisms, microorganisms associated with periodontology, surgical and nonsurgical treatment, implantology and maintenance, and periodontal endodontic emergencies. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 1130, MCB 1000 and MCB 1000L
Corequisites: DEH 1800C, DEH 2400

DEH 2604
Periodontology II
1 Credit
This course provides information on the principles of periodontology pertinent to dental hygiene practice. Topics include periodontal care modifications for systemic conditions, decision making during treatment planning, helping patients change behavior, periodontal surgical concepts, periodontal maintenance, periodontal/endodontic emergencies, implantology and maintenance, and future directions of periodontal patients.
Prerequisite: DEH 2602
DEH 2702
Community Dental Health
2 Credits
This course is designed to provide knowledge of attitudes, skills, and behaviors necessary to promote dental health and prevent disease through organized community based programs. Students will be responsible for assessing, planning, implementing, and evaluating procedures in a community oral health program. Credit for this course does not apply to the associate in arts degree.
Prerequisite: DES 1830C
Corequisites: DEH 2804C, DEH 2809

DEH 2702L
Community Dental Health Practicum
1 Credit
This course is designed to provide the student with community based experiences in public health settings for the promotion of dental health and the prevention of dental disease. Students will apply principles of program assessment, implementation, and evaluation procedures for all sites visited. Credit for this course does not apply to the associate in arts degree.
Prerequisite: DEH 2702
Corequisites: DEH 2502, DEH 1811

DEH 2804C
Clinical Dental Hygiene III
3 Credits
Clinical Dental Hygiene III, a continuation of DEH 1802C, is a combined course that provides discussion of clinical activities along with clinical experience. This is the third term for direct patient care. Students apply the principles and demonstrate improved patient care skills while performing clinical activities for the prevention of oral disease, including patient assessment, treatment planning, scaling, debridement, root planning, ultrasonics, and air polishing application of preventive agents, oral irrigation and antimicrobial agents, and oral home care instructions. Credit for this course does not apply to the associate in arts degree.
Prerequisite: DEH 1802C, DES 1830C
Corequisites: DEH 2300, DEH 2809

DEH 2806C
Clinical Dental Hygiene IV
4 Credits
Clinical Dental Hygiene IV is a continuation of DEH 2804C. This course combines advanced clinical activities with previous clinical experience. This is the fourth term for direct patient care, which emphasizes quality patient care, time constraints, and communication skills. Students will continue to perform clinical activities for the prevention of oral disease, including patient assessment, treatment planning, scaling, debridement, root planning, ultrasonics, and air polishing application of preventive agents, oral irrigation and antimicrobial agents, and oral home care instructions. Additional experience will include office management, legal aspects, ethics, dental hygiene practice settings, dentistry and dental hygiene regulation, and general office procedures. Students are required to successfully complete an advanced number of procedures. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 2804C and DEH 2809
Corequisites: DEH 1811 and DES 2502

DEH 2809
Advanced Clinical Procedures
2 Credit
Advanced Clinical Procedures is a lecture course that is a continuation of concepts and clinical procedures introduced in previous clinical courses. This course provides discussion of case based studies and the application of specialized care treatment procedures. Students develop critical thinking skills based on the application of theory and advanced dental hygiene procedures. Topics include dietary surveys, recall systems and applied techniques with an emphasis on patients having specialized needs and unusual case factors that may complicate routine care. Credit for this course does not apply to the associate in arts degree.
Prerequisites: DEH 1802C, DEH 2400
Corequisites: DEH 2300, DEH 2804C

DEP 1004
Developmental Psychology of the Life Span
3 Credits
Emphasizes developmental and psycho social growth from conception to death. Topics include Piaget's stages of cognitive development, Erickson's "Eight Ages," the concept of maturity, changing personalities in later adulthood, theories of aging and death and dying.
Prerequisite: College level reading and writing skills are required.

DEP 1004H
Honors Developmental Psychology of the Life Span
3 Credits
Same as for DEP 1004 with honors content. Emphasizes developmental and psycho social growth from conception to death. Topics include Piaget's stages of cognitive development, Erickson's "Eight Ages," the concept of maturity, changing personalities in later adulthood, theories of aging and death and dying.
Honors Institute permission required. College level reading and writing skills are required.

DEP 2102
Child Development
3 Credits
Focuses on the development and psychosocial aspects of the child through adolescence. Topics include heredity, maturity and social determinants of child behavior. College level reading and writing skills are required.

DES 1020C
Oral, Head and Neck Anatomy
2 Credits
Oral, Head and Neck Anatomy is a detailed study of the gross anatomy of the head and neck, and the external and internal morphology of the primary and permanent dentition. Anatom-
judgments regarding the use and care of dental materials. Credit for this course does not apply to the associate in arts degree.
Corequisites: DEH 1002, DEH 1002L

**DES 1100**
**Dental Materials**
2 Credits
Dental Materials focuses on the nature, qualities, composition, and manipulation used in dentistry. The primary goal of this course is to enhance the student's ability to make clinical judgments regarding the use and care of dental materials based on how these materials react in the oral environment. Lecture topics include dental material standards, dental material properties, impression materials, gypsum products, mouth guards and whitening systems, dental bases, liners and cements, temporary restorations, classifications for restorative dentistry, direct restorative materials, indirect restorative materials, polishing procedures for dental restorations, removable dental prostheses, sealants and implants. Students will have hands on laboratory experience in the proper manipulation of dental materials commonly employed in dentistry. Some of the material taught in DES 1100C provides didactic, practical, and clinical experience necessary for the dental hygiene student to perform expanded functions as required by, and outlined in Florida Statue Title XXXII, Chapter 466, Section 466.024, and in the Florida Administrative Code Chapter 64, Sections B5 16.001, B5 16.002, and B5 16.006 through B5 16.010. Credit for this course does not apply to the associate in arts degree.
Prerequisites: CHM 1032, CHM 1032L, MCB 1000, MCB 1000L
Corequisites: DES 1100L

**DES 1100L**
**Dental Materials Lab**
1 Credit
This course is designed to provide basic knowledge and laboratory practice necessary for the proper manipulation of dental materials commonly employed in dentistry. Credit for this course does not apply to the associate in arts degree.
Prerequisites: CHM 1032, CHM 1032L
Corequisites: DES 1100, DES 1830C

**DES 1200**
**Dental Radiology**
2 Credits
This course provides the student with fundamental knowledge of the nature, physics and biological effects of radiation to maximize understanding of proper control and safety precautions to be used in exposing, processing, mounting, and evaluating diagnostically acceptable radiographs. Credit for this course does not apply to the associate in arts degree.
Corequisites: DES 1020C, DES 1200L

**DES 1200L**
**Dental Radiology Lab**
1 Credit
This course provides the student with laboratory experience in exposing, processing, mounting, and critiquing diagnostically acceptable intraoral and extra-oral radiographs. Credit for this course does not apply to the associate in arts degree.
Corequisites: DES 1020C, DES 1200

**DES 1600**
**Dental Office Emergencies**
2 Credit
This course is designed to teach students basic dental medical emergencies. Special emphasis will be placed on etiology, signs, treatment, prevention of medical emergencies and will provide students with an understanding of protocols, and use of equipment for emergencies in the dental environment.
Credit for this course does not apply to the associate in arts degree.

**DES 1800**
**Introduction to Clinical Procedures**
2 Credits
This core course introduces the dental hygiene student to the basic concepts of clinical practice. Topics include the history of dentistry, dental health team members, professional organizations, medical/dental history, vital signs, operation and maintenance of dental equipment, operator/patient, four-handed techniques, oral evacuation, dental charting, cleaning of removable appliances, coronal polishing, and fluoride application techniques.
Credit for this course does not apply to the associate in arts degree.
Corequisites: DES 1800L, DEH 1002 and DEH 1002L

**DES 1800L**
**Introduction Clinical Procedures Lab**
1 Credit
This course is designed for the practical application of professionalism and clinical procedures. Development of introductory skills is practiced in the clinical setting. Demonstration of required procedures is evaluated using preset standards.
Credit for this course does not apply to the associate in arts degree.
Corequisites: DES 1800, DEH 1002, DEH 1002L

**DES 1830C**
**Expanded Duties for Dental Hygienists**
2 Credits
Expanded Duties for Dental Hygienists is a combined lecture and clinical course designed to provide didactic, practical, and clinical experience necessary for the dental hygiene student to perform expanded functions as required by, and outlined in Florida Statue Title XXXII, Chapter 466, Section 466.024, and in the Florida Administrative Code Chapter 64, Sections B5 16.001, B5 16.002, and B5 16.006 through B5 16.010. Credit for this course does not apply to the associate in arts degree.
Prerequisite: DEH 1800C
Corequisites: DES 1100, DES 1100L, DEH 1802C

**DES 2051**
**Pain Control in Dentistry**
1 Credit
This course acquaints the dental hygienist with the academic and practical aspects of local anesthetics in dental patients.
provides the student with the required training and information to safely and effectively relieve pain and reduce anxiety in the dental patient. It requires that the student apply knowledge from pharmacology, biochemistry, physiology and anatomy. The student should also realize the competency and ultimate proficiency in the administration of local anesthesia requires repeated administration and self-reeducation. This course is specifically designed to obtain certification for local anesthesia in the State of Florida.

Prerequisites: DES 1020C
Corequisite: DES 2051L

DES 2051L
Pain Control in Dentistry Laboratory
1 Credit
This course acquaints the dental hygienist with the academic and practical aspects of local anesthetics in dental patients. It provides the student with the required training and information to safely and effectively relieve pain and reduce anxiety in the dental patient. It requires that the student apply knowledge from pharmacology, biochemistry, physiology and anatomy. The student should also realize the competency and ultimate proficiency in the administration of local anesthesia requires repeated administration and self-reeducation. This course is specifically designed to obtain certification for local anesthesia in the State of Florida.

Prerequisites: DES 1020C
Corequisite: DES 2051L

DES 2502
Office Management
1 Credit
This course enables the student to gain knowledge and proficiency in all procedures necessary for office management. The course includes telephone techniques, ordering supplies, recall system, appointment control, bookkeeping, billing, and insurance procedures. Credit for this course does not apply to the associate in arts degree.

Prerequisites: DEH 2804C, DEH 2809
Corequisite: DEH 2702L

DIE 2000
Introduction to Dietetics
3 Credits
This course provides an in-depth introductory study of dietetics, the normal nutritional principles and the application of these principles, the professional opportunities for registered dieticians (RDs), and dietetic technicians (DTRs) and the role of the American Dietetic Association in dietetics education and practice.

Prerequisite: HUN 2201

DIE 2129
Quality Control in Food/Nutrition
3 Credits
Students will be introduced to quality assessment and control in foods and nutrition. Topics will include review of laws, regulations and standards relating to the practice of dietetics.

DIE 2270
Clinical Nutrition I
3 Credits
This course provides an in depth introductory study of dietetics; in depth review of nutrition science; the normal nutritional principles and the application of these principles throughout the life cycle.

Prerequisites: HUN 2201, DIE 2000

DIE 2271
Clinical Nutrition II
3 Credits
This course provides and advanced study of dietetics and the application of the science of nutrition to various disease states.

Prerequisite: DIE 2270

DIE 2401
Nutritional Education and Interviewing
3 Credits
Provides information on the nutritional habits of various cultural groups, educational methods which have an impact on food purchases and interviewing techniques.

Prerequisite: DIE 2000, HUN 2201
Corequisite: DIE 2419

DIE 2419
Nutritional Education Counseling Practicum
2 Credits
Provides the student with a practical application of nutrition education counseling. Actual interviews and customer needs records will reinforce the theories taught and the development and planning of menus.

Prerequisite: DIE 2000, HUN 2201
Corequisite: DIE 2419

DIE 2533
Clinical Practicum
2 Credits
This course provides a supervised practice experience in a clinical acute care setting. This course is coordinated with and taught concurrently with Clinical Nutrition II. Didactic instruction and the supervised practicum are coordinated to allow the student to apply medical nutrition therapy and develop the specific competencies of a dietetic technician in an acute care hospital clinical setting.

Prerequisite: DIE 2271

DSC 1002
Introduction to Terrorism
3 Credits
This course teaches the foundations of national security as it relates to international and domestic terrorism and the United States engagement in the war against terrorism. This course is a survey of the history and development of terrorist organizations and extreme political militancy both in the United States and the world.
DSC 1003  
**Introduction to Homeland Security**  
3 Credits  
This course provides an introspective review of the history of the U.S. Homeland Defense Initiative and will explore the evolution of homeland security in the United States including an overview of the government agencies and laws involved.

DSC 2033  
**Introduction to Terrorist Tactics and Weapons**  
3 Credits  
This course introduces students to various types of weapons of mass destruction. The student will be introduced to basic principles of weapons of mass destruction, recognition, identification, decontamination, and treatment protocols. The student will understand the importance of personal protective equipment and its proper uses and understand the toxicology, physical and chemical properties associated with weapons of mass destruction.