COURSES

CIS 106   CLOUD COMPUTING FUNDAMENTALS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
The course will cover the fundamental concepts involved with cloud computing. The primary topics will include understanding cloud infrastructure components, virtualization, scalability, services, deployment, web development, virtual cloud networking, cloud management and cloud security. The course will include evaluating cloud infrastructures from a variety of major vendors and provide hands-on application of many of the concepts.

CIS 107   WEB PROGRAMMING FOR BUS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will introduce the student to conducting business on the Internet. To remain competitive, many companies and entrepreneurs have established a presence on the Internet and are actively involved in conducting business on the net. The student will be exposed to the vast business potential of the net including creating effective web sites using HTML (Hypertext Markup Language), cascading style sheets, imaging and search engine optimization. Pre- or corequisite: CIS 111

CIS 108   CONDUCTNG RESEARCH ON INTERNET
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will introduce the student to the Internet. Students will be provided with necessary skills to effectively explore the information highway in a disciplined and academically productive manner. Students will have the opportunity to conduct in-depth research using the many electronic information resources available in cyberspace. Students will design and develop a web site to report the results of their research.

CIS 111   COMPUTER SYSTEMS & APPLICATNS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course introduces the student to the basic terminology and concepts of computer information systems. Topics include: computer business applications, computer components, software design, operating systems, databases, data communications, computer ethics , computer security, and management information systems. Practical hands-on experience will be provided using popular integrated microcomputer application software in database, spreadsheet and word processing management.

CIS 112   COMPUTER PROGRAMMING I
4 Lecture Hours   0 Lab Hours   4 Credit Hours
A course designed to introduce methods of solving computer business-oriented problems. A high level programming language is used to learn arithmetic, relational and logical operations, structured programming techniques, table manipulation, I/O data formats and internal subroutines. Programming activities involve problem definition, analysis, solution and documentation. No prior programming experience required.

CIS 117   DATA COMMUNICATION CONCEPTS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course is designed to introduce the students to the concepts of data, voice and video communications. Topics include communication terminology, local and wide area networks, transmission media, data integrity and security, network management, maintenance of applications and networking operating systems. In addition, current policy issues involved with the communication industry will be examined. Prerequisite: CIS 111 or concurrent enrollment, or permission of the department

CIS 120   COMPUTER BASED PUBLISHING
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will provide the student with the necessary skills to electronically publish material in a variety of mediums. In particular, the course will concentrate on desktop publishing and world wide web publishing. The students will be exposed to a variety of popular software packages such as Adobe Photoshop, Adobe InDesign, Adobe FLASH and Adobe Acrobat. Prerequisite: CIS 111 or concurrent enrollment, or permission of the department

CIS 123   COMPUTER PROGRAMMING II
3 Lecture Hours   0 Lab Hours   3 Credit Hours
A course designed to present intermediate features and interrelations of the curriculum's high-level programming language. Topics include advanced language specifications and syntax, object oriented concepts, input-out processing, advanced storage allocation, multidimensional arrays, data types and organizations, and subroutine linkage. Established algorithms utilized in searching and sorting data are covered in detail. Prerequisite: CIS 112 with a grade of C or better.

CIS 124   COMPUTER OPERATING SYSTEMS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
A systems-oriented course concentrating on methods and procedures that increase the efficiency and effectiveness of a computer installation. Topics include systems control programs, systems service and utility programs, operating system concepts, virtualization, Windows and the Powershell scripting language. Prerequisite: CIS 111

CIS 126   LINUX USING PYTHON
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will provide the student with an understanding of the functions of a LINUX based operating system. The LINUX/UNIX system will be utilized to provide the student with hands-on experience relating to the course concepts including basic UNIX commands, utilities, windowing systems, filters, shell programming, file systems, network communication, program execution and basic system programming. Prerequisite: CIS 111

CIS 140   HEALTH INFORMATION MANAGEMENT
3 Lecture Hours   0 Lab Hours   3 Credit Hours
The course is organized around the HIPAA components of terminology, transaction framework, planning, privacy and security. It applies across a diversity of medical systems including call centers, nurse triage, financial, accounting, marketing, resources planning, imaging and claims clearinghouse systems. The course content includes topics comprising many popular certification exams available in health information privacy, security and management. The course topics include the material in the HCISPP - Health Care Information Security and Privacy Practitioner exam. Prerequisite: CIS 111.

CIS 150   INFORMATION SECURITY MANAGEMNT
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course examines the field of information security to prepare information systems students for their future roles as business decision-makers. It presents a balance of the managerial and the technical aspects of the discipline with a focus on cyber security. Prerequisite: CIS 111

CIS 211   APPLIED DATABASE CONCEPTS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course is designed to present data access and data storage concepts using a relational database platform. SQL (Structured Query Language) will be utilized in both interactive and embedded mode. The course will incorporate relational concepts, data modelling, application development, big data analysis, cloud storage and programming. Currently, the Oracle database platform along with the Microsoft platform are being utilized. The course will present PL/SQL and Visual Basic as supporting programming languages. Prerequisite: CIS 123 with a grade of C or better.

CIS 212   SYSTEMS ANALYSIS AND DESIGN
3 Lecture Hours   0 Lab Hours   3 Credit Hours
The life cycle of the development of a computer-based CIS information processing application. Topics include management information systems, the systems study, charting and documentation, I/O design considerations, controls and audit trails, equipment and software selection, implementation and maintenance. A case study, which applies the course concepts, is currently being used. Prerequisite: CIS 112 or CPS 141, with a grade of C or better.

CIS 213   DATA ANALYTICS FOR BUSINESS
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course is designed to include more advanced operations, applications and capabilities of software within a business environment. Topics include: operating system functions; file management; advanced database management; advanced spreadsheet, presentation and management software; data analytic software; and application software integration. Prerequisite: CIS 111 with a grade of C or better or permission of the department

CIS 216   WINDOWS SERVER
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will introduce the student to the concepts involved in designing, installing, optimizing and maintaining a Windows Server based local area network. The course will approach the subject matter from both a practical and a theoretical perspective. Pre- or corequisite: CIS 111 or permission of the department

CIS 218   ROUTING & SWITCHING TECHNOLOGY
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will provide the student with the opportunity to study routing and switching technologies in a CISCO based data communication environment. The student will be exposed to TCP/IP, router programming, firewalls and security, as well as computer network design. The material covered will be applied in a communication networking laboratory. Prerequisite: CIS 117 with a grade C or better.

CIS 223   MOBILE APP DESIGN & DEVELOPMNT
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course provides a capstone experience. Students will design and develop a substantial software based solution using mobile platform technologies. The course will include such topics as GUI design, storage alternatives including cloud based options. Students will learn mobile programming technologies including current development environments and technologies such as GPS, mapping, advanced sensors and phone technologies. The course will utilize a high level object oriented programming language. Prerequisites: CIS 212, CIS213, or CIS106 and programming experience in a high level object-oriented computer language

CIS 227   COMPUTER ARCHITECTURE AND ORG
3 Lecture Hours   0 Lab Hours   3 Credit Hours
A course in IBM 390 Assembler Language designed to introduce students to data types, data structures, I/O processing, macro processing, dumps and debugging, internal and external subroutines and data manipulation. Prerequisite: CIS 112 with a grade of C or better or CPS 141 with a grade of C or better, or permission of the department

CIS 228   WEB SITE ADMINISTRATION
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This course will provide the student with an opportunity to learn the necessary skills required to create and administer a Web site. The course will include coverage of operating systems, firewalls, security, web hosting, XML and TCP/IP. Client side software including JavaScript will be utilized as well as ASP.NET for server side software to create dynamic web sites. Real time database access using Microsoft SQL. Server will be covered as will deployment techniques for hosting the website in the cloud. Prerequisites: CIS 107 or CIS 108.

CIS 265   CIS CAREER CAPSTONE SEMINAR
3 Lecture Hours   0 Lab Hours   3 Credit Hours
This seminar is designed for matriculated CNC/WAC/CIS students. This seminar will involve discussing and evaluating various work experiences. Students will be provided with an opportunity for developing skills to be successful in their chosen career. The seminar will concentrate on the development of interviewing skills, leadership skills, project management skills, communication skills and influence skills in a business environment. The course requires either 120 hours of approved internship experience or the completion of an approved vendor certification. Prerequisite: CIS 213 or CIS 106 or permission of the department

CIS 271   SPECIAL STUDY PROJECT I
1 Lecture Hour   0 Lab Hours   1 Credit Hour
A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of computer information systems or related areas. The student's time commitment to the project will be approximately 35-50 hours.

CIS 272   SPECIAL STUDY PROJECT II
2 Lecture Hours   0 Lab Hours   2 Credit Hours
Similar to CIS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

CIS 273   SPECIAL STUDY PROJECT III
3 Lecture Hours   0 Lab Hours   3 Credit Hours
Similar the CIS 271, except that the student's time commitment to the project will be approximately 105-135 hours.