Computer Information Systems (CIS)

Courses

CIS 124 Introduction to Computer Concepts and Applications (3 Hours)
In this introductory, non-technical computer course, students will learn through hands-on assignments to use current computer technologies to enhance personal and professional productivity. This includes current and emerging computer and Internet technologies, as well as desktop and web-based business applications. Students will learn strategies for evaluating the validity, legitimacy, and productivity potential of future technologies as they emerge, as well as how to assess the privacy risks associated with each. 3 hrs. lecture/wk.

CIS 142 Beginning Programming using Python (4 Hours)
In this introductory course, students will create computer applications that perform tasks and solve problems. Students will utilize fundamental logic, problem-solving techniques and key programming concepts to design, develop and test modular applications written in the Python programming language. 3 hrs. lecture, 2 hrs. open lab/wk.

CIS 201 Introduction to Information Systems* (3 Hours)
Prerequisites : ACCT 121.
This course introduces students to contemporary information systems and demonstrates how these systems are used throughout global organizations. Students will study key information system components and learn how these components are best leveraged by businesses. This course also provides an introduction to systems and development concepts, technology acquisition and various types of emerging or prevalent application software.

CIS 204 UNIX Scripting and Utilities* (3 Hours)
Prerequisites : CS 134 or CIS 142.
This course will cover the concepts and principles related to scripting for the multiuser, multitasking UNIX operating system and its utilities. Students will complete projects in UNIX ranging from using simple commands to writing shell scripts automating repetitive tasks.

CIS 208 Mobile Application Development* (4 Hours)
Prerequisites : CS 205.
In this course, students will utilize effective design and structured programming techniques to build mobile applications. Topics will include designing interfaces for small screens and varied architectures, processing user events, retrieving and storing data, communicating via the Internet, and deploying applications.

CIS 240 Advanced Topics in Java* (4 Hours)
Prerequisites : CS 205.
At the completion of this course, the student should be able to create Java applications for implementation on the Internet and the personal computer. The student will complete projects using Java's built-in features. The course will include generics, input and output streams, serialization, exception handling, multithreading, client-server applications and graphical user interfaces.

CIS 242 Introduction to System Design and Analysis* (3 Hours)
Prerequisites : CS 200 or CS 201 or CS 205.
Students will study the basic philosophy and techniques of developing and using business information systems. The emphasis will be on the human involvement necessary in systems analysis and design. The course will address the use of specific technical approaches available in the systems development life cycle.

CIS 260 Database Management* (4 Hours)
Prerequisites : CS 200 or CS 201 or CS 205.
At the completion of this course, students should be able to understand the characteristics and objectives of database management systems (DBMS). Topics include database environments, data modeling using the entity-relational model, normalization, logical and physical design, the Structured Query Language (SQL), data quality, database administration and related topics. Students will use a relational DBMS , employ associated tools and write programs to manipulate tables.

CIS 264 Application Development and Programming* (4 Hours)
Prerequisites : CIS 242 and CIS 260 and (CS 235 or CIS 240 or CS 236 or CS 255).
This course helps students develop a significant software project while combining previously learned software development skills with contemporary technologies. Students should work within a team to communicate, plan and implement a software application. Proper interviewing and job searching techniques are also explored.

CIS 270 Information Systems Internship* (3 Hours)
Prerequisites : Department approval and (CS 235 or CS 236 or CS 250 or CS 255 or CIS 240).
Students will work in an approved training situation under instructional supervision. The internship is designed to give students the opportunity to use skills learned in computer science and information systems courses. Fifteen hours on-the-job training per week will be the usual workload for the student. To be eligible, students must have recently completed a course in the department.

CIS 275 Web-Enabled Database Programming* (4 Hours)
Prerequisites : CS 200 or CS 201 or CS 205.
At the completion of this course, the student should be able to create dynamic Web pages containing information accessed from a database. The student will complete projects using Web technologies that interface with a database. The course will include graphics, graphical user interfaces, exception handling and event-driven programming.

CIS 291 Independent Study* (1-7 Hour)
Prerequisites : 2.0 GPA minimum and department approval.
Independent study is a directed, structured learning experience offered as an extension of the regular curriculum. It is intended to allow individual students to broaden their comprehension of the principles of and competencies associated with the discipline or program. Its purpose is to supplement existing courses with individualized, in-depth learning experiences. Such learning experiences may be undertaken independent of the traditional classroom setting, but will be appropriately directed and supervised by regular instructional staff. Total contact hours vary based on the learning experience.

CIS 292 Special Topics:* (1-4 Hour)
Prerequisites : Department approval.
This course periodically presents specialized topics in computer information systems that are not available in the regularly offered curriculum. Special Topics may be repeated for credit, but only on different topics. Total contact hours vary with topic. This is a repeatable course and may be taken more than once for credit.