

CIS - COMPUTER INFO SYSTEMS (CIS)

CIS 1XX. Comp Info Sys Elective. (1-3 Credits)

CIS 125. Business Applications of Microcomputer Software. (3 Credits)

A study of the application of microcomputer software to the business environment. Included are word processing, data management, presentation, and spreadsheet software programs. (Fall, Spring, Summer)

CIS 125H. Honors Business Applications of Microcomputer Software. (3 Credits)

An in-depth study of the application of microcomputer software to the business environment in a non-traditional setting that encourages active student participation, critical reflection, and innovative teaching methods. (Fall)

CIS 225. Introduction to Object-Oriented Programming. (3 Credits)

A study of programming syntax and logic and the fundamental features of current programming languages. Students will learn to analyze, program, test, document, and maintain a variety of information systems solutions to business problems. Prerequisites: CS 135; and MA 112, or any Area III math included in the General Education Component listed under requirements for the Bachelor of Business Administration degree. (Fall, Spring, Summer).

CIS 236. Information Systems in Organizations. (3 Credits)

A survey of information systems applications to support business processes, including operational, tactical, and strategic applications. Emerging and pervasive hardware, software, telecommunications, and data resource management technologies are emphasized. Security, ethics, global/international aspects, and systems integration issues are considered using the information systems (IS) framework. Prerequisites: CIS 125; and MA 112 or any Area III math in the General Studies Component listed under Academic Procedures and Requirements for the Bachelor of Administration degree. (Fall, Spring, Summer).

CIS 249. Introduction to Information Security. (3 Credits)

An introduction to both the technical and management aspects of information security. The course will provide a foundation for understanding the principles of protecting information assets, determining the levels of protection required, response, forensics, and recovery from security incidents, and developing a useful information security system with appropriate defenses, intrusion detection, auditing, and reporting. Also cross-listed as CS 249 but creditable only in field for which registered. Prerequisites: CS 135 and MA 112 or any Area III math included in the General Education Component listed under Requirements for the Bachelor of Business Administration Degree. (Fall, Spring).

CIS 289. Introduction to Human Computer Interaction/User Experience (HCI/UX). (3 Credits)

An interdisciplinary course which explores the foundations of HCI/UX including applied design, diverse forms of communication, cognitive processes, and software development in the context of how people interact with computing systems for real world application. Specifically, the course provides an introduction to the HCI/UX dimensions of design, development, and user research. Experts from relevant academic disciplines and industry provide an interactive and career-oriented environment. (Fall, Spring)

CIS 315. Advanced Object-Oriented Programming. (3 Credits)

An advanced programming course with an emphasis on object-oriented methodologies and concepts for solving complex business problems. This in-depth study of program data structures, algorithms, design patterns, and best practices in software development includes advanced elements from object-oriented programming languages. Prerequisites: CIS 225 (with a grade of C or higher) or CS 155 (with a grade of C or higher). (Fall, Summer).

CIS 330. System Analysis and Design. (3 Credits)

An introduction to the strategies and technologies for developing information systems (IS) within organizations. Emphasis is placed on the concepts, methodologies, and tools associated with the analysis, design, and implementation of successful systems. Prerequisites: CIS 225, 236 (with a grade of C or higher in both). (Fall, Spring; Summer on demand).

CIS 344. IT Infrastructure. (3 Credits)

Introduction to IT infrastructure and data communications including terminology, components, and models. Communication protocols, network architectures, network security, and network operating systems are included. The management of communications networks is examined. Prerequisite: CIS 225, 236 (with a grade of C or higher in both or CS 255 (with a grade of C or higher). (Fall, Spring; Summer on sufficient demand).

CIS 366. Database Development and Management. (3 Credits)

An introduction to the theory and practice of database design and processing within the information systems (IS) framework. This includes fundamental design concepts, technical aspects, and components of relational databases and database management systems (DBMS), and use of specific DBMS software. Emphasis is placed on the importance of the management and effective use of the data resource within an organization. Prerequisites: CIS 225 (with a grade of C or higher). (Fall, Spring, Summer)

CIS 376. Web Development. (3 Credits)

Introduction to Web development (design HCI and creation) using current standards for client-side content deliver (e.g., HTML and CSS). Students will learn to create and publish a multi-page, static-content website using associated applications. Special focus is given to user interface design, data presentation, and data organization. Prerequisites: CIS 225, 236 (with a grade of C or higher in both). (Fall, Spring; Summer on sufficient demand).

CIS 420. Information Systems Seminar. (3 Credits)

Current problems in information systems through the reading of periodicals, government publications, books, and Web pages which have had a profound effect on the rapidly changing technology. Prerequisite: 12 hours in CIS or approval of instructor. (Offered on sufficient demand).

CIS 430. Special Topics. (3 Credits)

Select topics varying according to the need and interest of students. Prerequisite: approval of instructor. (Offered on sufficient demand).

CIS 444. Advanced IT Infrastructure. (3 Credits)

Explore advanced concepts for the design and implementation of robust IT infrastructures. Understand infrastructure and design using expert command line interfaces to harden systems, secure access, configure file storage services, as well as other advanced topics in design and configuration of IT services. Prerequisite: CIS 344. (Fall; Spring, even-numbered years).

CIS 445. Advanced Database Management Systems. (3 Credits)

An intensive examination of organizational databases, including data validity, reliability, security, and privacy. Generating reports using structured query languages is emphasized. Distributed databases, data mining, and data warehousing are introduced. The roles of database administrator and data administrator will be explored including understanding data integrity and security. A current enterprise DBMS will be used. Prerequisites: CIS 330 and CIS 366, and CIS 376 or CS 255. (Fall, Spring).

CIS 446. Decision Support Using Spreadsheet. (3 Credits)

A study of the use of spreadsheet software to analyze and summarize business data. The integration of spreadsheets with other business software and internet applications is explored. Also includes automation of tasks by writing Visual Basic for Applications (VBA) code for spreadsheets. Emphasis is placed on the importance of the management and effective use of the data resource within organizations. Prerequisite: CIS 236 (with a grade of C or higher). (Fall, Spring).

CIS 476. Enterprise Architecture. (3 Credits)

A study of the design, implementation, and management of enterprise information systems. The course focuses on the development, maintenance, and management of systems that support business processes. Students are exposed to a wide range of tools, standards, and topics such as security, ethics, system administration, distributed computing, middleware, multi-tier architectures, interoperability, legacy system integration and emerging technologies. Agile software engineering methodologies, tools, and techniques are discussed and employed. Prerequisites: CIS 315 or CS 255, CIS 376 or CS 325, CIS 344 or CS 360. (Fall, Spring)

CIS 480. CIS Internship. (3 Credits)

A minimum 150-hour work related experience in the University or other public or private organization where the student will have hands-on experience in the day-to-day operation, development, or management of computer systems. The internship must occur in a work environment related to the information systems discipline. Application process is coordinated through Career Center. Must be a junior or senior and have a 3.0 overall grade point average. Prerequisites: CIS 225 and CIS 236 (with a grade of C or higher in both) and departmental approval.(Fall, Spring, Summer).

CIS 486. Projects in Information Systems. (3 Credits)

This course integrates theoretical concepts and practical skills gained in previous information systems courses into a capstone information systems project. This course presents real-world problems through case studies and projects while emphasizing the students' communication, collaboration, technical, and problem solving skills. Prerequisites: CIS 330 or CS 410, CIS 366 or CS 447, CIS 344 or CS 360, and senior standing. (Fall, Spring).

CIS 489. Capstone HCI/UX Project. (3 Credits)

This interdisciplinary, collaborative course integrates theoretical concepts and practical skills gained in courses in the HCI/UX minors and associated majors into a capstone project. The course presents real-world problems through case studies and assignments that emphasize the student's communication, collaboration, technical, project management, design, and problem solving skills. Open only to students who have completed all other requirements for a declared HCI/UX minor. Permission required. Grades in CIS 489 are A, B, C, or NC (No Credit).

CIS 490. Seminar - Small Business Oper. (3 Credits)

Application of classroom learning to problems of small business in the community. Student is given the opportunity to apply business concepts and develop analytical skills. Upon completion of selected readings relevant to small or minority enterprises, students are assigned a project on the basis of interest, ability, and experience. Students work in teams under the supervision of a participating professor within the College of Business. Also listed as AC 490, MG 490, and MK 490 but creditable only in field for which registered. Prerequisite: approval of the Dean of the College of Business. (Offered on sufficient demand)

CIS 499. Independent Study-Practicum. (3 Credits)

Open to senior majors on approval of the department chair. Provides for study, research, or special field experience on departmental determination, supervision, and evaluation.(Offered on sufficient demand).