

UNIVERSITY OF NORTH ALABAMA
Computer Information Systems Major Options
Enterprise Information Systems and End User Computing Systems
2006-2007 Catalog Course Descriptions

CIS 225. (3) **Introduction to Programming with Visual BASIC.NET.** A study of programming syntax and logic and the fundamental features of current programming languages. Using Visual Basic.Net, students will learn to analyze, program, test, document, and maintain a variety of information systems solutions to business problems. Prerequisite: CIS 125, MA 112.

CIS 236. (3) **Information Systems in Organizations.** 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. Corequisite: CIS 225.

*CIS 315. (3) **Advanced Object Oriented Programming.** An advanced programming course with emphasis on object-oriented methodologies and concepts for solving complex business problems. This in-depth study of program control structures and best practices in software development includes advanced elements from object-oriented languages such as JAVA, C++, C#, and Visual BASIC.NET. Prerequisite: CIS 225, 236 (with a grade of C or higher in both).

CIS 330. (3) **Systems Analysis and Design.** 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. Prerequisite: CIS 225, 236 (with a grade of C or higher in both).

*CIS 350. (3) **Multimedia in Business Reports and Meetings.** A study of the media formats and access technologies necessary to prepare and deliver business presentations enhanced by data from digital media sources. Emphasis is placed on the theoretical and practical aspects of design and implementation of digital multimedia presentations. Exposure to interactive multimedia and virtual meeting formats is included. Prerequisite: CIS 225, 236 (with a grade of C or higher in both).

CIS 366. (3) **Database Development and Management.** 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. Also covered is the automation of tasks by writing Visual Basic for Applications (VBA) code for databases. Emphasis is placed on the importance of the management and effective use of the data resource within an organization. Prerequisite: CIS 225, 236 (with a grade of C or higher in both).

CIS 376. (3) **Web Development.** Introduction to Web development (design and creation) using current standards for client-side content delivery (e.g., XHTML 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. Prerequisite: CIS 225, 236 (with a grade of C or higher in both).

CIS 406. (3) **Data Communications.** A study of data communications and networking 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 330.

*CIS 445. (3) **Advanced Database Management Systems.** An intensive examination of organizational databases, including data validity, reliability, security, and privacy. Structured query languages and report generators, will be emphasized. Distributed databases, data mining, and data warehousing are introduced. The roles of database administrator and data administrator will be explored. A current enterprise DBMS like ORACLE will be used. Prerequisites: CIS 330, 366.

*CIS 446. (3) **Decision Support Using Spreadsheets.** 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 225, 236 (with a grade of C or higher in both).

*CIS 456. (3) **Desktop and Web Publishing for Business.** Applications course concentrating on the use of advanced applications for preparing promotional, periodical, informational, and specialty publications with a business emphasis, including desktop publishing concepts. Study of web site creation and management, using current technologies, and the integration of databases. Includes sound, photo editing, animation, digital cameras, digital video and scanning techniques as they relate to business. Prerequisites: CIS 350, 376.

*CIS 466. (3) **E-Business Technologies and Applications.** A study of the standards, tools, and techniques associated with the development of systems to support electronic business. Various aspects of security, ethics, trans-border data flows, and interoperability will be studied. Included will be technologies, such as PHP, J2EE, and other languages, data management and data communications in an e-commerce environment. Prerequisite: CIS 376, 406, 445.

CIS 486. (3) **Projects in Information Systems.** 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 student's communication, collaboration, technical, and problem solving skills. Prerequisite: CIS 330, 366, 406, Senior Standing

**Option-specific courses.*