Computer Information Systems (CIS)

CIS 3323. Introduction to Microcomputer Applications.  
This course develops advanced information technology skills, focusing on office productivity software. Primary emphasis is placed on spreadsheet, database, and presentation software. Advanced techniques are presented for use in data analysis and decision-making. Students will be expected to demonstrate mastery of these techniques in a hands-on environment.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
TCCN: COSC 1301  
about Introduction to Microcomputer Applications

CIS 3324. Visual Programming I.  
An introduction to application program development to include requirement analysis, design, implementation, and testing. A blend of structured and object-oriented concepts is used to form solutions to business problems using a visual programming language. Prerequisite: CIS 1323.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
TCCN: BCIS 2316  
about Visual Programming I

CIS 3325. Visual Programming II.  
An advanced visual programming course covering topics related to the design and implementation of user interface, business logic and data access in a tiered architecture. The emphasis is on techniques that take advantage of a development framework through the use of forms, classes, and objects. Prerequisite: CIS 2324.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
about Visual Programming II

This course examines the concepts of information systems and network availability, integrity, and confidentiality in order to develop effective security controls, processes, practices, and procedures. Topics include methodologies, models, architectures, access control systems, ethics, and legal implications of IT security. Prerequisites: Overall GPA 2.0 required. Restricted to Juniors or Seniors in BBA or CJ majors.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
about Information Security Assurance: Principles and Practices

CIS 3330. e-Business Applications Design and Development.  
The course focuses on designing effective e-business applications to support the e-business strategy of a company. It covers e-business models, business solution delivery strategy, web required architectures, and development and deployment of dynamic, multi-tiered, transaction-oriented, e-business applications in a business-to-business environment. Prerequisite: CIS 3325 and ACC 2362.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
about e-Business Applications Design and Development

CIS 3334. System Analysis and Design.  
The analysis and general design phases of the system development life cycle are reviewed. Emphasis on techniques and tools for determining systems requirements that lead to the development of logical design models using structured and object-oriented methodologies. (WI).  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Course Attribute(s): Writing Intensive  
Grade Mode: Standard Letter  
about System Analysis and Design

CIS 3335. Enterprise Computing Skills using COBOL.  
Basic features of the COBOL language. Emphasis is on structured program development and file processing. Topics include file processing, sort feature, and subprograms. Prerequisite: CIS 3325.  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
about Enterprise Computing Skills using COBOL

CIS 3380. Enterprise Information Technology and Business Intelligence.  
Students will extend their ability to effectively use integrated software applications to identify and provide access to various information sources. The course will focus on applying information and Internet Technologies that span normal business functions for the development and implementation of solutions to managerial problems. Prerequisites: CIS 1323, MATH 1329 or equivalent, and QMST 2333. (MC).  

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.  
Grade Mode: Standard Letter  
about Enterprise Information Technology and Business Intelligence
Concepts and methodology of planning, design, development, and management of the computerized data base. The emphasis is on logical database design and a study of relational implementation. A relational DBMS with a relational query language is used for the development of a business application system. Prerequisites: CIS 3374 and completion of or concurrent enrollment in CIS 3380.
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Computer Data Base Systems

CIS 3389. Business Application Programming III.
This course will continue the study of business-oriented software development using an object-oriented programming language. Topics covered will include client/server object relationships, inheritance, polymorphism, encapsulation, inner classes, threads, GUI design, and the use of event models. Prerequisite: CIS 3325.
about Business Application Programming III
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Business Application Programming III

CIS 3390. Project Management for Business Professionals.
An introduction to project management body of knowledge as applied to Information Technology with emphasis on the management of scope, costs, schedules, quality and risks. Program management, system methodologies, material procurement, human, and international issues will be examined from the perspective of their impact on functional disciplines in the organization.
about Project Management for Business Professionals
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Project Management for Business Professionals

Advanced use of information technology in the design and implementation of business applications to support electronic commerce. Concepts, methodology, and toolsets for designing, implementing, and management of applications in Business-to-Business paradigm. Prerequisites: CIS 3382 and CIS 3325 or CIS 3389.
about Enterprise System Development and Application Security
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Enterprise System Development and Application Security

This course introduces the concepts, methodology, and toolset for designing business applications. Students will learn the MVC development framework and .Net programming environment for Windows to create interactive business applications. Prerequisite: CIS 3325.
about Mobile Application Development for Windows
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Mobile Application Development for Windows

CIS 4320. Mobile Application Development for Apple-iOS.
This course introduces the concepts, methodologies, and toolset for designing business applications for mobile devices such as iPhone and iPad. Students will learn the MVC development framework and Objective-C programming environment for Apple-iOS to create interactive business applications. Prerequisite: CIS 3325.
about Mobile Application Development for Apple-iOS
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Mobile Application Development for Apple-iOS

CIS 4321. Mobile Application Development for Android.
This course introduces the concepts, methodology, and toolset for designing business applications for mobile devices. Students will learn the MVC development framework and Java programming environment for Android to create interactive business applications. Prerequisite: CIS 3325.
about Mobile Application Development for Android
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Mobile Application Development for Android

A course that integrates systems development with analysis, design, project management, and the systems development life cycle. Object-oriented methods and UML models will be used to develop a project for a client. Students will select methodology, platform, and development technology based on client requirements. Prerequisites: CIS 3325 and CIS 3382.
about Computer System Development and Design
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Computer System Development and Design

The use of advanced information technology for integrating business functions in an enterprise through distributed databases is emphasized. Methodology and tools for the selection and implementation of Enterprise Resource Planning (ERP) systems are discussed. Students will use available ERP software to create, track and communicate enterprise information. Prerequisite: CIS 3380.
about Enterprise Resource Planning Systems
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Enterprise Resource Planning Systems

CIS 4348. Fundamentals of Data Communications.
A course oriented to the technical concepts of data communications and network designs and how they relate to contemporary computer end-user environments. It incorporates the systems approach for understanding, designing, managing, securing, and implementing data communication networks. Students will analyze and design data communication networks for various business situations.
about Fundamentals of Data Communications
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Fundamentals of Data Communications
This course introduces advanced concepts and database processes to support applications for Business Intelligence. Multi-dimensional modeling along with database, reporting, and analysis capabilities of a modern database environment will be used to design and develop stored procedures, views, user-defined functions, reports and multi-dimensional information cubes. Prerequisite: CIS 3382.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Advanced Database Management Systems

This course focuses on the technology and managerial issues related to information systems security. Topics include: Attack methods, access control, authentication, firewalls, incident and disaster response, disaster recovery, security function management, and cryptography. Prerequisite: CIS 4348.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Information Systems Security

CIS 4355. Network Administration.
This course provides students with an understanding of the responsibilities assigned to network administrators. Students will acquire a working knowledge of these responsibilities and skills using tools and technologies for administering enterprise networks via network operating systems commonly used in modern business enterprises. Prerequisite: CIS 4348.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Network Administration

CIS 4360. Developing Business Solutions for the Enterprise.
An introduction to the concepts, methodology, and toolsets for the architecture, design, implementation, and deployment of business solutions for the enterprise in a services-oriented computing environment. Topics include services-oriented architecture, “Software as a Service” framework, n-tier development of business and data services, and application security. Prerequisites: CIS 3325 and CIS 3382.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Developing Business Solutions for the Enterprise

CIS 4395. Independent Study in Computer Information Systems.
An in-depth study of a single topic or related problem solved through computer information systems research. May be repeated once for credit with a different emphasis. Prerequisite: Consent of instructor and department chair.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Standard Letter
about Independent Study in Computer Information Systems

This one-semester course involves an internship in business information systems. Emphasis is on the application of computer information systems theory to business problems in the area of computer based management information systems. Prerequisite: Specified by employer with consent of instructor and department chair.

Grade Mode: Credit/No Credit
3 Credit Hours. 0 Lecture Contact Hours. 15 Lab Contact Hours.

Grade Mode: Credit/No Credit
about Computer Information Systems Internship

CIS 5318. Information Technology in the Digital Economy.
Provides an understanding of the issues involved in the strategic management of the information assets of organizations. Examines the issues and challenges that users face within the Information Technology (IT) management arena as part of a firm’s business and IT strategy. Focus is on managerial rather than technical issues. Prerequisite: B A 5351.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Information Technology in the Digital Economy

CIS 5354. Decision Support Models in Management.
This course is designed to give students the skills to design, implement, analyze, and present the results of an executive decision model. Students will gain hands-on experience both by preparing applications-oriented projects/cases and also by designing selected parts of DSS using Graphical User Interface (GUI) tools. Prerequisites: A strong working knowledge of personal computers and the Windows operating environment.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Decision Support Models in Management

CIS 5355. Database Management Systems.
Explores the concepts, principles, issues and techniques for managing corporate data resources using database management systems. The course includes techniques for analysis, design and development of database systems, creating and using logical data models, database query languages, and procedures for evaluating database management software. Students will use a relational database management system to develop a management information system.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Database Management Systems

CIS 5356. Business Telecommunications.
Explores the technology that is revolutionizing the manner in which business and government conduct their operations and the effects new developments in communication media have on computing systems. This course reflects the current state-of-the-art in data communication networking.

Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter
about Business Telecommunications
CIS 5358. IT Systems Project Management.
An in-depth study of the project management body of knowledge as applied to information Technology with emphasis on the management of scope, costs, schedules, quality and risks. Includes program management, system methodologies, material procurement, and human, cultural, and international issues and their impact on the organization.
about IT Systems Project Management
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about IT Systems Project Management

This course is designed to familiarize students with current and emerging e-commerce technologies. Topics include Internet technology for business advantage, reinventing the future of business through e-commerce, business opportunities in e-commerce, and social, political, global, and ethical issues associated with e-commerce.
about E-Commerce: Strategies, Technologies, and Applications
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about E-Commerce: Strategies, Technologies, and Applications

CIS 5364. Data Warehousing and Mining.
Familiarizes students with current and emerging data warehousing and mining technologies that are likely to play a strategic role in business organizations. Topics include data mining techniques, data warehouse development life cycle, data warehouse navigation, data quality, and performance issues. Prerequisites: QMST 5334, QMST 2333 or equivalent.
about Data Warehousing and Mining
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Data Warehousing and Mining

This course covers the analysis, design, development, implementation, and maintenance of information security systems. Topics include legal, ethical, professional, personnel issues; risk management; technology; cryptography; and physical security.
about Information Security
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Information Security

The use of information technology in integrating enterprises for operational control and strategic business intelligence is examined via Enterprise Resource Planning (ERP) applications in customer relationships management, accounting, finance, purchasing, production control, sales, marketing, and human resource management. Emphasizes managerial issues surrounding the need, selection, and implementation of ERP systems.
about Enterprise Resource Planning
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
about Enterprise Resource Planning

CIS 5390A. Business Process Modeling.
A study of tools and techniques for analyzing requirements of business process oriented systems. The course emphasizes a model driven approach and its usage for developing information controls. Unified Modeling Language (UML) is introduced to specify the user/system interaction, business logic, and data storage.
about Business Process Modeling
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Topics
Grade Mode: Standard Letter
about Business Process Modeling

CIS 5390B. Business Intelligence Project.
Development of a system used for the implementation of analytics to diverse areas of interest, including: marketing, financial risk analysis, quality management in manufacturing, health care management, and geographic information systems. Prerequisite: CIS 5355, CIS 5364.
about Business Intelligence Project
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Topics
Grade Mode: Standard Letter
about Business Intelligence Project