COMPUTER INFORMATION SYSTEMS (CIS)

CIS 212. Introduction to Computer Information Systems. (3 Credits)
I, II. Introduction to computer system concepts and productivity applications used in the workplace. Topics include the impact of digital technology in personal lives and professional careers, cybersecurity, development of spreadsheets, databases, business letters, and project management.

CIS 215. Introduction to Business Programming. (3 Credits)
I, II. Prerequisite: BUS 206 or CIS 212 or CIS 240 or INF 104 with a grade of C"" or better. Introductory computer programming course using an object-oriented programming language to solve business problems. This course will introduce: algorithm concepts and development; object-oriented programming methodologies; language syntax; graphical interface design and event based programming.

CIS 230. Business Applications of Microcomputers. (3 Credits)
A. Prerequisite: CIS 212 or CIS 240 or INF 104 or equivalent with a grade of ¿C-¿ or better. Advanced word processing, spreadsheets, database management, and presentation software. Credit will not be awarded for both CIS 230 and CSC 314.

CIS 240. Introduction to Web Information Systems. (3 Credits)
I, II. Introduction to design and development of Web-based systems. Includes Internet and Web technology; Web development using design procedures, HTML, CSS, and XML; client-side scipting languages, and hands-on experience in webpage authoring. Gen. Ed. VII (QS).

CIS 250. Business Programming II. (3 Credits)
I, II. Prerequisite: CIS 215 with a grade of ¿C-¿ or better. Intermediate computer programming course introducing: data structures; file input-output using sequential and random techniques; database access; business report generation; advanced graphical interface design and event based programming.

CIS 300. Management Information Systems. (3 Credits)
I, II. Prerequisites: CIS 212, INF 104 or TEC161 with a grade of "C" or better in each course; and an overall minimum of 2.0 GPA. Role of information systems in supporting managers, decision making and organizational goals; planning and managing e-business systems; global competition; social and ethical issues.

CIS 320. Forensic Computing: Investigations. (3 Credits)
A. Prerequisite: BUS 206 or CIS 212 or CIS 240 or INF 104 or TEC 161 with a grade of "C" or better and junior standing. Provide students with an understanding of digital forensics as used in corporate investigations and criminal/civil litigation. Students learn basic tools and techniques to properly initiate a computer forensics investigation, then acquire and analyze the evidence.

CIS 325. Forensic Computing: Acquisitions. (3 Credits)
A. Prerequisite: BUS 206 or CIS 212 or CIS 240 or INF 104 or TEC 161 with a grade of "C" or better and junior standing. Students will experience and understand the portion of the digital investigation beginning with digital evidence acquisition, then analysis of the evidence and finally reporting results - implementing various forensic hardware and software including wirte-blockers and EnCase.

CIS 335. Data Base Management. (3 Credits)
I, II. Prerequisite: Junior standing and BUS 206 CIS 212 or INF 104 or TEC 161 or CSC 174 or CSC 190 with a grade of "C" or better. Fundamental concepts of database Processing; conceptual; logical and physical design of databases; the use of SQL for data retrieval and relational database implementation; and data management for the enterprise. (Formerly CIS 435).

CIS 340. Electronic Business Technologies and Tools. (3 Credits)
II. Prerequisite: Junior standing and CIS 240 with a grade of "C" or better. The course provides an introduction to e-business infrastructure, tools, and the development of e-business applications with these tools. Topics include Web applications; HTML, XML; client-side and server-side and scripting languages.

CIS 349. Applied Learning in Computer Information Systems. (0.5-8 Credits)
A. Prerequisites: minimum GPA of 2.25 and 60 credit hours. Co-op Coordinator approval is required. Approved work experience directly related to academic major and/or career goals. Minimum of 80 hours work for each credit hour. Three hours may be used as a major elective. May be repeated for a total of 16 credit hours.

CIS 355. Advanced Business Programming. (3 Credits)
A. Prerequisite: CIS 250 with a grade of ¿C-¿ or better. An object-oriented computer programming course to solve business problems. This course will introduce: object oriented design; inheritance and composition; advanced interface and component reuse; integration techniques; server-side controls.

CIS 360. Computer Information Systems Internship. (2-4 Credits)
A. Prerequisites: GPA of 2.25 and advisor/departmental approval. Practical experience in computer information systems.

CIS 370. Seminar in Computer Information Systems. (1-3 Credits)
A. Prerequisite: instructor approval. Selected topics of special and contemporary interest to business students. May be retaken under different subtitles to a maximum of six hours.

CIS 375. Networks and Telecommunication. (3 Credits)
A. Prerequisite: Junior Standing and CIS 240 or NET 303 with a grade of "C" or better. The study of networking and telecommunications fundamentals including LANs, WANs, and the Internet. Data communication and telecommunication concepts, models, standards, and protocols are studied. Installation, configuration, and management of infrastructure technologies are practiced.

CIS 380. Information Systems Analysis and Design. (3 Credits)
A. Prerequisite: Junior standing and (BUS 304 or CIS 215 or CIS 300 with a grade of "C" or better in each course). Systems development life cycle with the emphasis analysis and design. Topics include requirements determination, logical design, physical design, and implementation planning; feasibility analysis; RAD, prototyping, and object-oriented modeling techniques; software package evaluation, acquisition, and integration.

CIS 400. Electronic Bus Plan & Strategy. (3 Credits)
I, II. Prerequisite: Junior standing and CIS 300 with a grade of "C". Course covers the theory and practice of electronic business. Emphasizes e-business models and technology, assessing company performance and value; design, promotion, global and social issues. global and social issues.

CIS 410. Project Management and Practice. (3 Credits)
I. Prerequisite: Junior standing and (BUS 304 CIS 300 or CIS 240 or NET 303 with a grade of "C" or better in each course.) This course presents the theory and practice of modern project management. The technical and behavioral aspects of project management and change management are applied within the context of an information systems project.

CIS 420. Forensic Computing: Network Analysis. (3 Credits)
I, II. Prerequisites: CIS 212 or NET 303 with a grade of "C" or higher or departmental approval. This course provides students with an understanding of computer forensics, in the context of managing computer networking and wireless networks, as well as in the context of corporate investigations and business letigation. Students learn tools and techniques to investigate network logs, network traffic, and web sites to conduct a forensic investigation.

CIS 430. Business Data Mining. (3 Credits)
(3) A. Prerequisites: (BUS 206 or CIS 212 or 240 or INF 104 or TEC 161) and (QMB 200 or ECO 220 or STA 215 or STA 270), all with a grade of C or above. Introduces the basic concepts and practical business applications of data mining. Topics include: data types, data patterns, data preprocessing, data cleaning, outlier analysis, features reduction, feature discretization, data integration, data mining process, model estimation, Bayesian inference, regression analysis, classification, and prediction.

CIS 436. Advanced Database Management. (3 Credits)
A. Prerequisites: CIS 335 and CIS 215 or CIS 340 with a grade of "C-" or better in each course. An in-depth study of modern data base management to include advanced and current database topics. Coverage includes advanced data modeling and relational database design and implementation to include current technologies and techniques; database programming; database applications development for electronic business.

CIS 475. Advanced Telecommunications. (3 Credits)
A. Prerequisite: CIS 375 or permission of instructor. More in-depth coverage of telecommunications and networking to include installation and configuration, managing resources connectivity, running applications, monitoring and optimization, trouble shooting, and resources.

CIS 480. Information Systems Implem. (3 Credits)
I, II. Prerequisite: CIS 215, CIS 340, CIS 380, and CIS 335 with a grade of "C-" or better in each class. An in-depth study of systems development life cycle with an emphasis on implementation of an IS project. Students develop program specifications, test plans, code and test a mixed-language software application, and provide system documentation.

CIS 490. Special Problems in Computer Information Systems. (1-4 Credits)
A. Prerequisite: advisor/departmental approval. Independent study in information systems. May be retaken under different sub-topics to a maximum of six hours. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.

CIS 860. Contemp Topics in Info Sys. (3 Credits)
A. Prerequisite: CIS 850. Topics include some of the following: office automation, telecommunications, decision support systems, knowledge-based systems, executive information systems and executive support systems. May be retaken to a maximum of six hours if topics are different.

CIS 890. Independent Study in CIS. (1-4 Credits)
A. Prerequisite: advisor/departmental approval. May be retaken under different subtopics to a cumulative maximum of six hours. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment.