Information Systems (IS) - Courses

Courses
IS 220 Cr.4
Information Systems for Business Management
This course provides the basic level of management information systems literacy. Students will be exposed to the building blocks of computer-based information systems, the various organizational aspects of utilizing information systems, and the role of information technology in the digital economy. To stress the importance of user participation, the systems development life cycle will be introduced from end-users’ perspective. Additionally, students will acquire essential skills of personal productivity tools through hands-on training in small classes. Prerequisite: sophomore standing. Offered Fall, Spring.

IS 300 Cr.3
Data Analytics for Business Problem Solving and Decision Making
This course provides an understanding of the systematic ways for formulating business problems from information systems perspectives. The course will examine the necessary decision processes that lead to effective solutions utilizing data analytics approaches. Major topics include: data mining and machine learning, organizational decision support using information systems and other data driven problem solving techniques. Prerequisite: IS 220; admission to business or information systems major/minor or healthcare analytics management minor. Offered Spring.

IS 310 Cr.3
Information Systems in Networked Environments: Technical Foundations and Applications
This course provides fundamentals of data communications and business networking requirements, and examines the linkage of information technology strategies and technological solutions for enabling effective business processes within and between organizations in emerging environments. Major topics include: data communications and business networking, applications to data communications, basic technologies of the internet and the web, commercial use of internet technologies, e-business applications, and cases in online industries. Prerequisite: IS 220; admission to business or information systems major/minor or health information systems management minor. Offered Spring.

IS 320 Cr.3
Enterprise Systems for Decision Making and Data Analytics
This course provides an introduction to enterprise systems and their impact on organizations. An enterprise system application is utilized to illustrate the concepts, fundamentals and integration of enterprise-wide applications and processes. Enterprise system data analytics applications are applied to analyze business results and support business decision making. Prerequisite: IS 220; admission to business or information systems minor or health information systems minor. Offered Fall.

IS 321 Cr.3
Survey of Information Technology in Healthcare
In this course essential information technologies in healthcare (HITs) will be surveyed. Many important healthcare information systems (HISs) are built upon three categories of HITs: data processing technologies, information reporting technologies, and decision supporting technologies. Specific subjects pertaining to these technologies will be identified and introduced. Prerequisite: admission to business or health information systems management minor or healthcare analytics management minor. Students may not earn credit in both HIMT 320 and IS 321. Offered Fall.

IS 330 Cr.3
Business Choices and Telecommunications Decision
An examination of the business and organizational role of telecommunications. The course will not address the theoretical foundations of telecommunications, but rather focus on using telecommunications to support and achieve business strategies. Course topics will include how businesses are being reshaped by advances in telecommunications; how businesses plan, deploy and manage telecommunications resources; and how businesses are utilizing and administrating local area network (LAN) and wide area network (WAN) technology to achieve business objectives. Prerequisite: CS 120; IS 310; admission to business or information systems minor. Offered Fall.

IS 340 Cr.3
Ethical Issues, Security Management and Compliance
This course introduces three broad subjects: 1) evidence-based medical ethics pertaining to healthcare information management; 2) framework of healthcare information security management including security principles, policies and procedures, security management models, risk assessment, and protection mechanisms; and 3) healthcare regulations and compliance with focuses on the legislative systems, policies, and legal environment of healthcare in the US and the existing health information laws, regulations and standards. Also addressed are the elements and development of compliance programs. Prerequisite: admission to business or health information management systems minor. Student cannot earn credit in both HIMT 340 or IS 340. Offered Fall.

IS 360 Cr.3
Management of Information Technology
An examination of issues that both MIS and non-MIS managers face in managing information and information technology within an organization. The course is a topics course and will, of necessity, vary from semester to semester to stay current with the technological changes which managers would face in the workplace. Topics include strategic uses of information technology, technological trends and their implications, the relationship between organizational structure and information technology, evaluation of the effectiveness of information technology, end user computing, management of new and existing systems and ethical and international issues. Prerequisite: admission to business or health information systems minor; junior standing. Offered Spring.

IS 370 Cr.3
Healthcare Systems: Analysis and Design
This is the first course in a two-course sequence that addresses methods and techniques of healthcare information system (IS) analysis and design as performed within the system development life cycle. Included will be the definition of the problem, fact gathering, analysis, logical design, selection and evaluation of alternative healthcare information systems solutions from the point of view of the health provider and user. The course focuses on the problem solving process that leads to the development of logical IS solutions to applied healthcare programs. Prerequisite: IS 220. Students cannot earn credit in both HIMT 370 and IS 370. Offered Fall.
IS 401 Cr.3
Management Information Systems: Analysis and Design
This is the first course in a two-course sequence that covers the development process for computer-based management information systems. This course emphasizes information analysis and the logical design of management information systems. Prerequisite: CS 120, IS 300, IS 310; admission to business or information systems minor. Offered Fall.

IS 405 Cr.3
Information Systems Seminar
Emphasis will be on examination and study of current issues in information systems. Topics will vary from semester to semester. Prerequisite: IS 300 and IS 310. Offered Occasionally.

IS 410/510 Cr.3
Information Security Management
This course provides a comprehensive treatment of the managerial aspect of information security while leaving the technical aspect to the computer science discipline. Concepts of information security management (ISM) related to governance, risk management, and compliance will be acquired from survey of contemporary literature including textbooks, journal articles, and online publications while positive models serving as industry standards that are governing today's ISM practice will be introduced and compared. This course is taught largely at an undergraduate level. Graduate students will have additional course requirements/expectation. Prerequisite: IS 220 or CS 220 or 2-year relevant industry experience; admission to business. Offered Fall.

IS 411 Cr.3
Management Information Systems: Project Management and Implementation
This is the capstone course in a sequence that covers implementing an information system. This course emphasizes the use of project management techniques to support an information system implementation. In-depth exposure to key tools, techniques, practices, and knowledge areas of project management will be applied to system implementation. Prerequisite: CS 364 and IS 401; admission to business. Offered Spring.

IS 420 Cr.3
Healthcare Systems: Project Management
This course addresses the phenomenal impact information system (IS) projects have had on healthcare delivery. Students learn how IS healthcare projects affect organizations, doctors, patients, and chronic-illness treatments, as well as individuals interested in managing their own healthcare. Concepts and tools for IS healthcare project management, process reengineering and work redesign are introduced. The purpose of this course is to expose students to IS project management activities in healthcare settings. Topics covered include recent IS healthcare project trends, budgeting, scheduling, resource management, scope, risk analysis, and deployment controls. The genesis of healthcare project management is covered using specific cases and examples. Prerequisite: admission to business or health information management systems minor. Students cannot earn credits in both HIMT 420 and IS 420. Offered Spring.

IS 435 Cr.3
Data Communications and Computer Networks in Healthcare
This course provides fundamentals of data communications and networking techniques, and examines the linkage of information technology strategies and technological solutions enabling effective communication within and between healthcare organizations. Major topics include fundamental concepts of data communications and applications, network communication devices, basic technologies of the Local Area Network, Wireless Local Area Network, Wide Area Network, Internet and the Web, the OSI stack, healthcare information system standards, and the HIE, RHIN, and the NHIN. Prerequisite: IS 220. Students cannot earn credits in both HIMT 435 and IS 435. Offered Spring.

IS 451 Cr.1-6
CBA Management Information Systems Internship
The internship program as conceived and implemented is an unusual program designed to provide an opportunity for students in the College of Business Administration to participate in an approved program with a cooperating business, governmental or civic organization for usually 15 weeks of their undergraduate work. All management information systems (MIS) internships must be approved and supervised by an IS faculty member. For additional information, see internship description under the College of Business Administration heading. Repeatable for credit - maximum six. Prerequisite: cumulative GPA of at least 2.50; ACC 221, ACC 222; BLAW 205; ECO 110, ECO 120, ECO 230; FIN 355; IS 220, MGT 308; MKT 309; admission to business. Pass/Fail grading. Offered Fall, Spring, Summer.

IS 499 Cr.1-3
Independent Study
Individual reading or research under the guidance of a staff member. Open to selected advance students who have excellent records in the department. Repeatable for credit - maximum six. Prerequisite: admission to business. Consent of instructor. Pass/Fail grading. Offered Fall, Spring, Summer.