IS-Information Systems Courses

Courses

IS 204. Introduction to Business Programming. 3 Hours.
An introductory course addressing the concepts, structures, and use of an event-driven programming language to implement business solutions. Emphasis is placed on developing general problem-solving strategies and implementing solutions through algorithm development.
Prerequisites: MA 105 [Min Grade: C]

IS 301. Introduction to Database Management Systems. 3 Hours.
An introductory course on database management systems. Emphasis is placed on providing students with the fundamental knowledge necessary to model business data needs, design logical data models, and design, implement, and use of a physical database in application development.
Prerequisites: IS 321 [Min Grade: C]

IS 302. Business Data Communications. 3 Hours.
A study of data communications technologies used for business. The technologies include local and wide area networks, as well as telephony. Network management and security are also emphasized.

IS 303. Information Systems. 3 Hours.
A survey course covering the theory and application of management information systems in business environments. Includes planning, development and implementation of business strategies that leverage information systems for competitive advantage.
Prerequisites: (GPAT and GPAO 2.00) or (GPAU 2.00 and GPAO 2.00)

IS 305. Introduction to Application Development. 3 Hours.
A course addressing the concepts, structures, and use of object-oriented problem solving and the C# programming language. Emphasis is placed on developing general problem-solving strategies and implementing solutions through algorithm development using object class models and C#.
Prerequisites: (IS 204 [Min Grade: C] and GPAT and GPAO 2.00) or (IS 301 [Min Grade: C] and IS 304 [Min Grade: C])

IS 321. Systems Analysis. 3 Hours.
Focuses on the planning, decision making tasks and requisite skills necessary for the analysis of information systems.
Prerequisites: (GPAT and GPAO 2.00) or (GPAU 2.00 and GPAO 2.00)

IS 331. Enterprise Operating Systems. 3 Hours.
This course is an introductory course to large-scale computing systems known as Enterprise Systems. Students will learn how Enterprise Systems provide the infrastructure for 90% of Fortune 500 companies to ensure security, cloud capability, mobility and business analytics.
Prerequisites: IS 204 [Min Grade: D]

IS 332. Intro to COBOL Programming. 3 Hours.
This course provides an Introduction to Programming in COBOL. Emphasis on Structured Coding techniques and COBOL within the context of Enterprise software support and maintenance. Several computer assignments required.
Prerequisites: IS 331 [Min Grade: D] (Can be taken Concurrently)

IS 413. Introduction to Information Security. 3 Hours.
This course serves as an introduction to the field of information security where students will develop a basic understanding of the information security principles. Students will be able to understand the business value of information security and its legal/ethical considerations. Students will also gain an appreciation for security planning and risk management and how risk may be mitigated through technical, physical, and administrative controls.
Prerequisites: IS 204 [Min Grade: D]

IS 414. Information Security Planning and Management. 3 Hours.
Primary objectives of the course are for the student to develop an understanding of key information security concepts, develop an understanding of how people, technology, and organizational policies should be developed and managed to safeguard an organization's information resources, learn how to manage under uncertainty and risk, develop policies and procedures to make information systems secure, and learn how to audit and recover from security breaches.
Prerequisites: IS 413 [Min Grade: C]

IS 415. Social Media & Virtual Communities. 3 Hours.
This course focuses on how social media and virtual communities are changing business in fundamental ways. The course helps students gain practical facility in the use of social media tools and learn meta-skills like how to use new social media tools, how to use filters to make sense of social media, and how to curate news and reports in a manner that contributes to business knowledge and intellect.

IS 416. Web Analytics. 3 Hours.
The Web Analytics course introduces technologies and tools used to realize the full potential of web sites. The course focuses on collection and use of web data such as web traffic and visitor information to design web sites that will enable firms to acquire, convert and retain customers.

IS 417. Introduction to Business Intelligence. 3 Hours.
This course covers topics of knowledge management and business intelligence from an organizational IT perspective. The content of the course includes discussion of and readings on the nature of knowledge; knowledge discovery, generation, capture, transfer, sharing, and application; and includes discussion of the core IT capabilities necessary to deliver Business Intelligence in organizations. The development and use of data warehouses and data marts to support business analytics is discussed.

IS 418. Applied Data Science for Information Systems. 3 Hours.
A course in Business Analytics focusing on the extraction and preparation of data for analysis, applying analysis methods, and reporting analysis results. Students will also examine issues related to data stewardship and provenance.
Prerequisites: IS 204 [Min Grade: C] and IS 301 [Min Grade: C] and IS 321 [Min Grade: C] and IS 417 [Min Grade: C]

IS 420. Web Application Development. 3 Hours.
This course will cover concepts, principles, and methods related to the design and implementation of web applications. The course will also cover a basic understanding of technical skills of both client and server technologies, and build simple web applications.
Prerequisites: IS 204 [Min Grade: D]

IS 421. Mobile Application Development. 3 Hours.
This course will cover concepts, principles, and methods related to the design and implementation of mobile applications. Emphasis is placed on the developing web content and creating applications for mobile devices, including Internet/business practices and techniques for delivery on mobile platforms.
Prerequisites: IS 204 [Min Grade: D]
IS 431. Enterprise Transaction Systems. 3 Hours.
CICS (Customer Information Control System) is the world-wide transaction processor that's used for interactive transactions on IBM mainframe computers. The vast majority of the CICS code for those applications is in the form of CICS commands that are embedded within COBOL programs, and this course will help you develop a solid understanding of what you have to do to become a proficient CICS programmer.

Prerequisites: IS 331 [Min Grade: D] and IS 332 [Min Grade: D]

IS 432. Enterprise Database Systems. 3 Hours.
The IBM DB2 database management system is the standard in enterprise data management for z/OS and earlier mainframe operating systems. Although several programming languages work with DB2, COBOL is the most commonly used in the mainframe environment. Students will be introduced to fundamentals of database analysis, design and implementation. This course teaches the use of the industry-standard Structured Query Language within a COBOL program to retrieve and update data stored in DB2 databases.

Prerequisites: IS 331 [Min Grade: D] and IS 332 [Min Grade: D]

IS 464. IS Internship. 3 Hours.
Work experience enabling students to better integrate academic knowledge with practical applications by exposure to information systems and the business environment. 2.0 GPA in IS courses and permission of instructor required. Must be an Information Systems major. Sponsoring business may require additional courses.

Prerequisites: (GPAT and GPAO 2.00) or (GPAU 2.00 and GPAO 2.00)

IS 491. Current Topics in Information Systems. 3 Hours.
A study of selected current developments in information systems emphasizing development and managerial implications. Permission of instructor required.

Prerequisites: (GPAT and GPAO 2.00) or (GPAU 2.00 and GPAO 2.00)

IS 499. Directed Readings. 1-3 Hour.
Readings and independent study in selected areas.