

INFO. SYSTEMS MGMT. (ISM)

ISM 3011 - Information Systems (3 Credits)

Overview of information systems technology, including flow and control of information in an organization and use in decision making. Focuses on information systems' strategy case studies, current security issues, and technology platforms to prepare students to utilize IT for exploring opportunities and solving problems in a global business environment. (Junior standing required)

Prerequisite(s): CGS 1100 or COP 1500

Attribute(s): COBC - College of Bus. Course

ISM 3053 - Mobile App Development (3 Credits)

DEVELOP INTERACTIVE CROSS-PLATFORM APPS THAT USES DATA INPUT TO DO SIGNIFICANT COMPUTING.

ISM 3113 - Systems Analysis & Design (3 Credits)

Systems concepts, structured methods, techniques, and computerized tools used in information systems analysis and design. Both procedural and object-oriented analysis design approaches are covered. Students will work on a real life projects to apply concepts and methods learned in class. (Fundamental computer programming knowledge required.)

Prerequisite(s): ISM 3212 (may be taken concurrently) and QMB 3302 and (COP 2006 or ISM 3230)

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 3212 - Database Concepts & Admin (3 Credits)

Principles of database administration. Information systems design and implementation with database management systems. This course covers conceptual, logical, and physical design of database; SQL; and various database administration issues. Students will design and construct a physical database system to implement the logical design.

Prerequisite(s): ISM 3011 or CEN 3031

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 3230 - Introduction Bus Programming (3 Credits)

Introduction to problem-solving and business application development using a modern programming language. Students learn programming concepts (design, code, test, and debug), language syntax, and principles of object oriented development. Assignments include the development of a basic business application with a graphical user interface (GUI).

Prerequisite(s): (CGS 1100 or COP 1500) and (MAC 2233 or MAC 2311)

Attribute(s): COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 3371 - Secure Business Applications (3 Credits)

This course covers methodological framework for identifying common programming errors that result in software vulnerabilities, understanding how these errors are exploited by attackers, and how to implement solutions in a secure fashion.

Prerequisite(s): ISM 3011 and ISM 3230

ISM 3400 - Data Warehouse and Bus Intell (3 Credits)

This course prepares business students to be able to use a variety of tools and technologies used in business intelligence for strategic and operational decision making. Those tools and technologies include data warehouse, OLAP, data mining, and visual presentations.

Prerequisite(s): ISM 3011

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4094 - Enterprise Systems (3 Credits)

State of the art information technologies used by organizations to improve their products, operations and decision making in every aspect of their global collaborative value chains will be studied.

Prerequisite(s): ISM 3011

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4154 - Info Systems Integration (3 Credits)

This course prepares students so they can integrate cross-functional systems and analytical systems into an enterprise system, as well as developing inter-organizational system. Different approaches to systems integration, issues related to changes in business processes, and necessary technology components such as ERP, web services, EDI, API, XML, SOAP, and semantic webs will be covered.

Prerequisite(s): ISM 3113 and ISM 4323

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4263 - Cloud Solution Architectures (3 Credits)

Introduces students to contemporary cloud computing services/solutions. Design of cloud services/solutions to support business strategies with a focus on security, privacy, compliance, and trust. Topics include pricing, lifecycle management, and service level agreements.

Prerequisite(s): ISM 3011

ISM 4323 - Network Security (3 Credits)

This course is focused on the fundamental concepts, architectures and protocols related to network security. Topics include overview of network security; basics of cryptography; threat models; authentication and authorization mechanisms and standards; electronic mail security; network layer security; web security; packet filtering, firewalls; intrusion detection, and virtual private networks.

Prerequisite(s): ISM 3011 or CEN 3031

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4324 - Computer Forensics (3 Credits)

Understand and decipher the complexities of digital and multimedia evidence. Processes and legal procedures for acquiring, handling, analyzing, and storing digital content in the course of digital forensic investigations are addressed.

Prerequisite(s): ISM 3230

ISM 4332 - Project Management (3 Credits)

Students will gain an understanding of the project management process through both individual and team assignments. Knowledge areas addressed include project selection, scheduling, costing, resources, quality, risk, communications, and stakeholder management. Students will gain an understanding of various project methods and apply them in a comprehensive team project using Microsoft Project.

Prerequisite(s): CGS 1100

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4373 - Ethical Hacking for Business (3 Credits)

Overview of ethical hacking with a view of defending an organization's digital assets. Explore basic penetration testing concepts and learn fundamental security domain concepts such as network, web and application security.

Prerequisite(s): ISM 3011

ISM 4480 - E-Commerce (3 Credits)

The course focuses on the technology needed to create and run an e-commerce website. The technology needed to create a purchase, associated website analytics, and leveraging the data to successfully create an e-commerce website are covered.

Prerequisite(s): ISM 3011

ISM 4572 - I.T. Continuity (3 Credits)

Covers concepts, strategies, and implementation of business continuity and IT disaster recovery plans. Manage the risks to critical business resources, IT systems and processes posed by man-made and natural disruptions.

Prerequisite(s): CGS 1100

ISM 4905 - Directed Independent Studies (1-3 Credits)

Independent studies as directed by designated faculty. Permission of the instructor and department chair required.

Prerequisite(s): ISM 3011

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4915 - Information Systems Project (3 Credits)

This is the capstone course for the Computer Information Systems program. This course provides an opportunity for students to demonstrate that they have mastered material covered throughout the program and can apply it in the real world. The capstone course provides student with an opportunity to complete a comprehensive project relating to their chosen concentration or the broader discipline of Computer Information Systems.

Prerequisite(s): ISM 3113 and ISM 4323

ISM 4930 - Topics in Computer Info Sys (3 Credits)

Selected topics in information systems.

Prerequisite(s): CGS 1100

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect.

ISM 4941 - Practicum in Computer Info Sys (3 Credits)

Joint faculty/industry directed remote and/or on-site course experience in computer information systems.

Prerequisite(s): ISM 3212

Attribute(s): CISE - Comp Info Sys Elective, COBC - College of Bus. Course, COBE - College of Bus. Elect., WBLI - Work based learning indicator

ISM 5910 - Directed Independent Studies (1-3 Credits)

Individual study and research under faculty direction. Topics vary and are usually selected on an individual basis. Detailed project and/or paper must be completed. (Permission of instructor and department required)

Prerequisite(s): ISM 6021

ISM 5930 - Topics in Computer Info Sys (3 Credits)

A comprehensive survey of selected contemporary issues and topics in information systems at the graduate level. Individual investigation and reporting emphasized in seminar fashion.

ISM 6121 - Bus Proc Analysis & Innovation (3 Credits)

Study and application of systems development approaches. Agile and traditional methods are used as the basis for gathering information and data. Students work on a real life project to apply concepts and methods they have learned. Approaches for eliciting information needs, understanding sources of data, documenting requirements, and developing prototypes are addressed.

ISM 6136 - Predictive Analytics and ML (3 Credits)

This course introduces students to state-of-the-art tools and techniques for building predictive analytics models based on machine learning technologies such as Decision Trees and Neural Networks. Topics such as classification models, clustering models, association rule mining and text mining are covered.

Prerequisite(s): QMB 6303 or QMB 3302

ISM 6155 - Enterprise Systems (3 Credits)

Strategies and technologies for the implementation of enterprise-wide computer information systems. Study of business processes and enterprise resource planning (ERP) systems for decision-making, process design, and control.

ISM 6217 - Data Management (3 Credits)

The course covers fundamental concepts of data management. Topics may include database design; query languages and performance; database operations and administration; security; data quality; data architecture; master data management; meta data management; data warehouse management; data governance; and unstructured data management in the context of enterprise data management and enterprise resource planning.

ISM 6226 - IT Infrastructures & Networks (3 Credits)

Major options and issues relating to current Information Technology architectures are addressed. Cloud based solutions such as IAAS, PAAS, SAAS are explored through assessments and evaluation of current technologies provided by Microsoft, Amazon, and IBM. Other topics included in the course are: telecommunications fundamentals including data, voice, image, and video. Issues related to the development of an integrated technical architecture to serve organizational needs in a rapidly changing competitive and technological environment.

ISM 6239 - Web, Mobile, & Social Technol. (3 Credits)

Students will learn how to develop a hosted solution utilizing commercial web development software that supports both web and mobile access. Access controls, security, accessibility, SEO, and management considerations for a mobile computing environment will be addressed.

Prerequisite(s): ISM 6251

ISM 6251 - Programming for Analytics & ML (3 Credits)

This course covers programming concepts to prepare students for skills in analytics, machine learning and artificial intelligence. The course will also cover web and mobile programming skills. The current popular programming languages will be used to teach the concepts.

ISM 6316 - Project Management (3 Credits)

The course provides skills in managing the development of Information Systems. Approaches such as the waterfall approach, Agile Approaches and Design Thinking approaches. The course also introduces the concepts of project planning, project scheduling and resource management.

ISM 6328 - Cybersecurity Management (3 Credits)

This course is focused on the fundamental concepts, architectures and protocols related to information security. Topics include overview of security management approaches, network security; basics of cryptography; threat models; authentication and authorization mechanisms and standards; electronic mail security; network layer security; web security; packet filtering, firewalls; and intrusion detection; blockchains, hyperledgers, digital payment systems. The course will also cover concepts of computer network infrastructure.

ISM 6404 - BI and Visualization Tools (3 Credits)

Business leaders must have the ability to collect and interpret information from both internal and external sources to make decisions to improve organization performance. This course covers state-of-the-art tools for visualization of data for improved business intelligence and decision making.

Prerequisite(s): QMB 6303 or QMB 3302

ISM 6422 - AI/ML Tools for Business (3 Credits)

This course covers the fundamentals concepts of Artificial Intelligence (AI) and also the cutting-edge AI tools and their applications to various business domains such as Finance, Marketing, Accounting, Economics and Supply Chain.

ISM 6488 - IT and AI Strategy (3 Credits)

This course provides concepts and frameworks that help businesses sustain competitive advantage in the presence of disruptions and innovations caused by Information Technology. In addition, it will explore the impact of Artificial Intelligence on the future of business automation.

Prerequisite(s): ISM 6021 or ISM 3011

ISM 6509 - IT Sourcing Management (3 Credits)

This course focuses on the acquisition and management of information technology and services. The growth of cloud computing, software as a service, and the outsourcing of both IT and business functions requires the development of specific skills to operate and manage in a complex global environment. Drawing on economic and management theories as well as real world examples from managerial practice, the goal of the course is to help you identify the challenges of global sourcing as well as the costs, risks, rewards, and strategies involved in making sourcing decisions.

Prerequisite(s): ISM 6121 and ISM 6316

ISM 6562 - Big Data Analytics & Mgt (3 Credits)

This course covers how big data (high volume, high variety and high velocity) is stored and processed. Topics include the Hadoop Distributed File System and the Hadoop Ecosystem, NoSQL databases such as graph databases, document databases, key-value pair databases, column oriented databases and multi-modal databases.

Prerequisite(s): ISM 6217

ISM 6945 - Capstone Proj in Is/Analytics (3 Credits)

This course will require the student to work on a capstone project in the field of Information Systems or Analytics. The project will be completed under the guidance of a faculty member. There will be presentable deliverable at the end of the project.

Prerequisite(s): ISM 6121 and ISM 6316 and ISM 6217 and ISM 6251

Attribute(s): WBLI - Work based learning indicator

ISM 6946 - Practicum in Info Systems (3 Credits)

An experiential learning exercise that allows for practical application of knowledge acquired in the classroom. S/U only. (Permission of department required)

Prerequisite(s): ISM 6121

Attribute(s): WBLI - Work based learning indicator