INFORMATION TECHNOLOGY MANAGEMENT (ITM)

ITM 2000 - Information Technology with Supply Chains
Credit(s): 3 Credits
This course introduces students to the development, implementation and use of information systems in organizations. It is intended to prepare students for living and working in an information-rich, networked world and to introduce students to the profession of ITM. A variety of computer software is utilized to fulfill the objectives. Major topics include: the creation, storage, and usage of data; the application of information systems in organizations and functional areas; information security; IT trends; business analytics; enterprise systems; and the role of IT in supply chain management. As more and more businesses globally adopt enterprise systems, it becomes increasingly important for students to understand how real-world business processes are managed and executed.

ITM 2500 - Spreadsheet and Database Productivity
Credit(s): 3 Credits
The purpose of this course is to help students build skills and knowledge related to the use of electronic spreadsheet software. The focus is on the use of these tools to improve decision making and efficiency in organizations. Students will learn how to properly apply techniques such as scenario analysis, goal seeking analysis, logical functions and lookup tables. In addition, students will learn how to build simple databases, and retrieve data from more complex databases. Students will also learn how to extract data from databases to enable analysis in a spreadsheet.
Prerequisite(s): ITM 2000

ITM 2930 - Special Topics
Credit(s): 1-3 Credits (Repeatable for credit)

ITM 2980 - Independent Study
Credit(s): 1 or 3 Credits (Repeatable for credit)
Permission of the department chair.

ITM 3100 - Enterprise Applications Development
Credit(s): 3 Credits
This course is aimed at providing the student with an understanding of how to approach programming for business from a structured and object-oriented viewpoint. This is accomplished through the use of a programming language such as Java. Further, it serves as a foundation course for more advanced topics that follow including object-oriented systems.
Prerequisite(s): ITM 2000

ITM 3300 - Database Management Systems
Credit(s): 3 Credits
This course introduces students to the principles of relational database design and implementation and to the practical realities of database administration including the need for security, recovery, and resource sharing. Students learn and practice the fundamentals of the Structured Query Language (SQL), entity-relationship diagrams, dependencies and normalization, multi-user systems and XML. Projects require the student to design and develop a database application by utilizing design tools and a major DBMS package such as Oracle.
Prerequisite(s): ITM 2000

ITM 3450 - Web Site Design and Development
Credit(s): 3 Credits
This course will teach students how to design web sites with creative interfaces, graphic images, functional site organization and logical navigation with a concentration on the design of web pages. It will also present the basics and the concepts of developing a web site. The basics include a working knowledge of HTML and internet protocols. Students will learn to use a web site editor such as Dreamweaver MX. Web site design concepts introduced include effective use of color, images, animation and layout. Students will learn to create a basic home page and publish it on a web server along with advanced navigation and presentation techniques in the development of a design portfolio. Upon course completion, students will be prepared to design, implement and manage a basic web site.
Prerequisite(s): ITM 2000

ITM 3550 - Introduction to 'Big Data'
Credit(s): 3 Credits
“Big Data” is the buzzword in business today. It speaks of the great volume, velocity, variety, veracity and value of available data that can be obtained in the world. The recent explosion of social media, mobile computing, and the computerization of virtually every aspect of economic activity have resulted in the creation of Big Data, and promise the discovery of new value and opportunities in businesses. In a parallel development, computers continue to become more powerful, storage space becomes increasingly more affordable and cloud computing becomes more accessible and affordable. Today, we have the ability to reliably and inexpensively store huge volumes of data, efficiently analyze them and swiftly extract business and socially relevant information.
Prerequisite(s): OPM 2070

ITM 3600 - Business Analytics
Credit(s): 3 Credits
Business Analytics (BA) is the art of transforming business data into business intelligence. Business Intelligence covers strategies and technologies to achieve knowledge about status, potentials and perspectives of a company out of heterogeneous and distributed data. The focus of this course is to provide a foundation for analytical concepts, techniques and tools required in business decision making. BA tools are extensively used in the areas of marketing, strategic planning and financial planning. Given the importance and strong demand of BA, this course will equip the future business managers on using the BA tools, strategies, and techniques in their work place. This course provides a thorough understanding of the concepts of managing BA using data visualization, online analytical processing (OLAP) and other related topics. The course will use extensive hands-on exercises with SAP Dashboard, IBM Watson, and Tableau 9.1.
Prerequisite(s): ITM 2000; OPM 2070

ITM 3700 - Information Security Management
Credit(s): 3 Credits
This course will examine the field of information security to prepare students for their future roles as business decision makers. It will present both the managerial and the technical aspects of the discipline and address knowledge areas of the CISSP (Certified Information Systems Security Professional) certification throughout. Information security will be addressed within a real world context and include many examples of issues faced in today’s businesses.
Prerequisite(s): ITM 2000; (ITM 2000 or ITM 2010)

ITM 3800 - Business Information Systems
Credit(s): 3 Credits
This course introduces students to the principles of relational database design and implementation and to the practical realities of database administration including the need for security, recovery, and resource sharing. Students learn and practice the fundamentals of the Structured Query Language (SQL), entity-relationship diagrams, dependencies and normalization, multi-user systems and XML. Projects require the student to design and develop a database application by utilizing design tools and a major DBMS package such as Oracle.
Prerequisite(s): ITM 2000
ITM 3800 - Project Management  
Credit(s): 3 Credits  
Students in this course will learn that projects are the vehicles to introduce change into complex organizational systems and that managing that process requires business, technical and people skills. A growing number of industries are increasingly using project management as a way to manage organizational goals. Projects may involve disciplines such as information systems, accounting, operations management, marketing, and international business. The general course objective focuses on developing problem analysis/solution development skills related to project definition, planning, scheduling, organizing, managing and closing projects (a.k.a., the project management life cycle). Topics covered align with selected knowledge areas prescribed by the Project Management Institute to set the foundation for students that might like to pursue further study and certification in this field.  
Prerequisite(s): ITM 2000; Minimum Earned Credits of 60

ITM 3900 - Applied Enterprise Systems Implementation  
Credit(s): 3 Credits  
This course focuses on setting up an Enterprise Resource Planning (ERP) system for use in a global organization. Students learn how to configure a large system to support a global organization with multiple companies. Project management skills are enhanced as the students work in cross-functional teams in order to configure and use a multi-company ERP system.  
Prerequisite(s): ITM 2000

ITM 3930 - Special Topics  
Credit(s): 1-3 Credits (Repeatable for credit)

ITM 3980 - Independent Study  
Credit(s): 1 or 3 Credits (Repeatable for credit)  
Permission of the department chair.

ITM 4100 - Systems Analysis & Design  
Credit(s): 3 Credits  
This course provides a general understanding of the systems development life cycle as well as other techniques including prototyping. Students will develop the analytical skills required to thoroughly understand a problem and formulate the optimal solution. Projects will require the student to use process modeling techniques to assist in the analysis and design process.  
Prerequisite(s): ITM 2000

ITM 4700 - Business Data Mining  
Credit(s): 3 Credits  
Data mining is about extracting meaningful information from large data sets. Organizations generate large volumes of structured and unstructured data that needs to be analyzed. Data mining can increase the power of decision making by extracting insights from large data sets. In this course, students will learn the core concepts and techniques of data mining and examine how data mining technologies can be used to improve decision making. Using data mining software tools (IBM SPSS Modeler and SAP Predictive Analytics), students will apply data mining techniques on large business datasets. Students will learn the application of data mining tools in multiple business domains (e.g. healthcare, supply chain, and banking) to gain useful business insights.  
Prerequisite(s): ITM 3700

ITM 4900 - Enterprise Systems Practicum  
Credit(s): 3 Credits  
This course serves as an introduction to ERP and provides a solid foundation for common business processes in many disciplines and how they are supported by modern information systems. The class examines various elements of an organization's business processes and teaches students to examine and analyze business processes. The student's study is reinforced by the use of SAP ERP software to support both strategic decisions and day-to-day operations of a business.  
Prerequisite(s): OPM 3050; ITM 2000; ACCT 2200; Minimum Earned Credits of 60

ITM 4910 - Information Technology Management Internship  
Credit(s): 1-3 Credits (Repeatable for credit)  
This course can be used as elective credit or as major credit. Participants will have the opportunity to develop new skills through experiential learning under the direction of a skilled practitioner. The arrangements for the working relationship must be established prior to the assignment.  
Prerequisite(s): (ITM 2000 or ITM 2010)  
Restrictions: Enrollment limited to students with a classification of Junior or Senior.

ITM 4930 - Special Topics  
Credit(s): 3 Credits (Repeatable for credit)

ITM 4980 - Independent Study  
Credit(s): 1-3 Credits (Repeatable for credit)  
Permission of the department chair.

ITM 5930 - Special Topics  
Credit(s): 3 Credits (Repeatable for credit)

ITM 5980 - Graduate Reading Course  
Credit(s): 1-3 Credits

ITM 6000 - Managing Information Technology  
Credit(s): 3 Credits  
This course describes the role of IT in organizational strategy. Topics covered include cloud base technologies, Internet applications and emerging technologies. This course emphasizes the concepts underlying enterprise systems and identifies challenges in managing security and risks in IT infrastructure.

ITM 6050 - Project Management  
Credit(s): 3 Credits  
This course provides an overview of the roles, responsibilities, and management methods of the project manager from project concept to closeout and the structure of project management within an organization. Content may include project selection, quality, scope, time, cost, human resources, communications, risk, procurement and integration management. Topics selected are based on the educational requirements for the Certified Associate in Project Management curriculum (CAPM) as prescribed by the Project Management Institute and complement the information technology management curriculum. This course uses techniques such as simulation, team projects, case studies and interactive discussions to facilitate application of the concepts.
ITM 6300 - Database Management Systems  
**Credit(s): 3 Credits**
Course provides an overall understanding of database techniques, beginning with a study of the characteristics of relational database management systems and continuing with structured query language (SQL), entity–relationship diagrams, dependencies and normalization, and multi-user systems. Evolving approaches to database management, such as object-oriented database, will also be examined. Projects will require the student to develop a database design from the analysis stages to the final implementation by utilizing various design tools and a DBMS package such as Oracle.

ITM 6400 - Applied Business Analytics  
**Credit(s): 3 Credits**
This course provides necessary skills for business managers to apply Business Analytics tools for data analysis and business decision making. This course focuses on developing skills and knowledge in creating analytics solutions such as Business Intelligence Dashboards. Using hands on tutorials and case studies, students will learn and demonstrate application of analytics skills in multiple business domains.

ITM 6450 - Business Strategy and Enterprise Systems  
**Credit(s): 3 Credits**
This course serves as an introduction to ERP and also provides a solid foundation for the common business processes used in today's organizations. In this course, students will learn about common business processes and gain proficiency in the use of the SAP® enterprise system to execute those processes. Students will also learn how to manage a company that involves trading goods as well as a manufacturing enterprise. Students will have to create strategies to be successful in a competitive environment.

ITM 6500 - Managing Cybersecurity in Organizations  
**Credit(s): 3 Credits**
This course will help students to develop the skills required to manage a cybersecurity program to effectively cope with rising threats. The course is designed primarily for MBA students who will become managers or business professionals in a network e-business enterprise. Offered fall and spring.

ITM 6550 - Big Data in Organizations  
**Credit(s): 3 Credits**
Through lectures, guest speaking series, readings, practical techniques, real-world examples, and hands-on exercises, we will explore the Big Data landscape, its ecosystem, market players, technologies involved, open source software and programs, methodology, step-by-step approach, to begin a corporate strategy around big data. We will show how to decompose current business strategies in order to link big data initiatives to the organization's value creation processes, and identify big data use cases. This course will help students understand the essentials of Big Data, directing them to various tools that can facilitate the big data usage in their organizations, and prepare them to be valuable Big Data professionals.  
**Prerequisite(s):** OPM 5020 with a grade of C or higher

ITM 6930 - Special Topics  
**Credit(s): 3 Credits** (Repeatable for credit)

ITM 6980 - Independent Study  
**Credit(s): 1 or 3 Credits** (Repeatable for credit)