INFORMATION TECHNOLOGY MANAGEMENT (ITM)

ITM 2000 - Information Technology with Supply Chains
Credit(s): 0 or 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: e-commerce and the Internet; the creation, storage and usage of data, information and knowledge; systems development; the application of information systems in organizations and functional areas; and the use of computer resources for problem-solving. 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. Offered Fall and Spring.

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 look up 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: ITM-2000.
Prerequisite(s): (ITM 2000 or ITM 2010)

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)

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 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. Offered in spring. Prerequisite(s): ITM-2000.
Prerequisite(s): (ITM 2000 or ITM 2010)

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 major DBMS package such as Oracle. Prerequisite(s): ITM-2000.
Prerequisite(s): (ITM 2000 or ITM 2010)

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 concepts of developing a web site. The basics include a working knowledge of HTML and Internet protocols. Students will learn to use a website 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 homepage 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.
Prerequisite(s): (ITM 2000 or ITM 2010)

ITM 3500 - 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 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.
Prerequisite(s): (ITM 2000 or ITM 2010)

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 and value of available data 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.
Prerequisite(s): OPM 2070

ITM 3600 - Global Information Management
Credit(s): 3 Credits
This course addresses issues in global information management. It will focus on central issues facing IT managers and general managers working with IT on a multinational basis. The context of issues regarding regions/nations, firms, and individuals will be addressed in terms of policies, technical infrastructure, application and business processes, and IT operations. Students will work with cases to apply these concepts in context. Students will also interact with students from other countries for developing knowledge regarding global information technology issues using groupware technology.
Prerequisite(s): IB 2000; (ITM 2000 or ITM 2010)
ITM 3700 - 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. A recent McKinsey report in BusinessWeek has projected that there will be a shortfall of 1.5 million BA analysts by 2018. 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. **PREREQUISITES:** ITM-2000, OPM-2070, and a minimum 2.70 gpa.  
**Prerequisite(s):** OPM 2070; (ITM 2000 or ITM 2010)  

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 or ITM 2010); Minimum Earned Credits of 60  
**Restrictions:** Enrollment limited to students with a semester level of Junior or Senior.  

ITM 3900 - Applied Enterprise Systems Implementation  
Credit(s): 3 Credits  
This course focuses on the end-to-end implementation of an Enterprise Resource Planning (ERP) system for use in a global organization. Students learn how to configure a complex, integrated system to support the financial accounting, fulfillment, procurement, production and warehouse management processes at a life-like model company. Students will also enhance their project management skills as they work in cross-functional teams in order to create a comprehensive work-plan, produce deliverables, and prepare simulated presentations to management. Offered in fall. **Prerequisite:** ITM 2000.  
**Prerequisite(s):** (ITM 2000 or ITM 2010)  

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)  

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.  
**Prerequisite(s):** (ITM 2000 or ITM 2010)  

ITM 4700 - Business Data Mining  
Credit(s): 3 Credits  
Data mining is about extracting meaningful information from large data sets. Organizations generate large volume 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. Offered in spring. **Prerequisite(s):** ITM-3700.  
**Prerequisite(s):** ITM 3700  

ITM 4900 - Enterprise Systems Practicum  
Credit(s): 3 Credits  
This course serves as an introduction to ERP and also 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 process 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 and ACCT 2200); (ITM 2010 or ITM 2000); Minimum Earned Credits of 60  
**Restrictions:** Enrollment limited to students with a semester level of Junior or Senior.  

ITM 4910 - Information Technology Management Internship  
Credit(s): 1-3 Credits (Repeatable for credit)  
This course can be used as elective credit or as concentration 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 semester level 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 Dept. 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 6100 - Systems Analysis and Design  
Credit(s): 3 Credits  
Systems analysis and design 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. Data modeling techniques such as data flow diagrams (DFDs) and IDEF will be used. Projects will require the student to use a product such as Oracle's Designer 2000 to assist in the analysis and design process. Prerequisite(s): ITM-6000.

ITM 6250 - Electronic Commerce Systems  
Credit(s): 3 Credits  
This course covers the basic approach to the principles of design and implementation for electronic commerce systems. Also covered are issues in project management, underlying technologies that enable electronic commerce at the firm and market levels, and issues of security. The intent of the course is to aid individuals preparing for positions that include membership on and management of electronic commerce development teams. Prerequisite(s): ITM-6000.

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. Prerequisite(s): ITM-6000.

ITM 6350 - Telecommunications  
Credit(s): 3 Credits  
This course looks at the types of information used in the business environment and the implications in terms of communications along with the trend toward digital integration of historically stand alone analog and digital technologies. It examines the process of converting voice, data, image, and video information into integrated electromagnetic signals for transmission via various media. Coverage includes combination’s techniques, transmission efficiency methods, wide area networks (WANs), local area networks (LANs), high-speed trends in networking, and communications architectures and subsequent internetworking issues. Prerequisite(s): ITM-6000.

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. Prerequisite: Six credit hours of 6000-level graduate business courses.

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  
This course focuses on developing skills and knowledge in creating Big Data projects. Using hands on tutorials and case studies, students will learn and demonstrate application of analytics skills in multiple business domains. Prerequisite: Six credit hours of 6000-level graduate business courses.

ITM 6600 - Digital Media and Information  
Credit(s): 3 Credits  
This course looks at the types of information used in the business environment and the implications in terms of communications along with the trend toward digital integration of historically stand alone analog and digital technologies. It examines the process of converting voice, data, image, and video information into integrated electromagnetic signals for transmission via various media. Coverage includes combination’s techniques, transmission efficiency methods, wide area networks (WANs), local area networks (LANs), high-speed trends in networking, and communications architectures and subsequent internetworking issues. Prerequisite(s): ITM-6000.

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

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