INFORMATION TECHNOLOGY MGT (ITM)

ITM 305 Introduction to Computer-Based Information Systems 4 credits
This class will explore organizational strategy and competitive advantage for using Information Systems. In doing so, Ethics, Privacy and Information Security will be examined along with determining how to manage data and knowledge. Exploring telecommunications, networking and e-business will be accomplished along with discovering mobile computing. Finally identifying strategies for customer relationship and supply chain management as well along a look at business analytics and its value proposition.

ITM 342 Project and Lifecycle Management 4 credits
This class will explore the business strategies that drive projects in companies. An identification demonstration of the triple constraints of scope, time, and cost using the tools and artifacts of the PMI Waterfall Methodology will be complete. Understanding how to manage stakeholders by gaining champions and securing team consensus and buy-in will be pursued. Identifying and demonstrating knowledge of how to manage a Scrum Team using the tools and artifacts of the PMI Agile Methodology will be offered.

ITM 345 The Evolution of Agile Management 4 credits
This class will explore the change required to become an Agile Organization. An understanding of how change is expedited rapidly and how products are delivered iteratively to support the inertia of the organization. Determining how organizations have to change to facilitate an Agile environment will be examined. The new modality of how developers and business employees work together will be offered and how to maximize work not done. An understanding of how teams self-organized will be reviewed.

ITM 400 Managing Technology Organizations 4 credits
This class will provide for a determination of who the people are and what business systems are utilized in tech-intensive organizations. There will be an exploration of growth dynamics of technology organizations. Identifying strategies used to manage technology organizations and understanding the processes of innovation plus its application in a technical environment will explored. Determining how to manage talent focusing on technology leadership and how to manage change in a technology organization will be identified.

ITM 410 Foundations of Cyber Security and Network Defense 4 credits
This class will initially explore Information Security Governance and Compliance. Security operations will be examined along with the foundations of Incident, Threat and Vulnerability Management. Cyber defense will be explored in-depth to include how Malware and Intrusion Detection is conducted, what countermeasures are put in place to foil cyber attacks and bad actors plus how Forensic Investigations are conducted to further determine protections for the network. Finally, how a secure enterprise is maintained based on how all the cyber security services work together. (e.g. HIPPA, SOX, GLBA).

ITM 420 Applied Systems Analysis and Design 4 credits
This class will Identify the Systems Analysts role in Information Systems Development Understanding the tools used for Requirements Determination, Use Case Analysis, Process Modeling and Data Modeling is completed. Exploring the method for general technology design, User Interface Design and Program Design will be completed. Examining how new technology is implemented will round off this class.

ITM 425 Digital Transformation of Business 4 credits
This class will explore the five domains of digital transformation: Customers, Competition, Data, Innovation and Value. Identifying how to harness customer networks and how to build platforms not just products will be determined. An identification of how to turn data into assets and the exploration of innovation by rapid experimentation will be pursued. Understanding how to adapt a Value Proposition while learning how to master disruptive business models will be discovered.

ITM 434 Fundamentals of Artificial Intelligence 4 credits
This class will explore the fundamental ideas of Artificial Intelligence (AI) to include its history, symbolic AI, along with computational intelligence. It will look at specific methods of AI including logic-based reasoning, structural models, synactic pattern analysis, pattern recognition and cluster analysis, neural networks and cognitive architecture. Issues in AI will be examined and how theories of intelligence in Philosophy and Psychology are applied. Future prospects for AI will be examined.

ITM 435 Business Ethics for Information Technology 4 credits
The conduct of technical and business professionals is considered from a moral and ethical perspective. Students develop their capability and depth as a reflective practitioner by using a rich framework for processing ethical decisions. A rare opportunity is provided to prepare a personal moral and ethical statement as a foundation for future decision-making.

ITM 440 Applied Research Project 4 credits
Learn to integrate business and technological knowledge to address an actual worksite need or problem. Through a capstone project gain experience in problem identification, solution selection, cost-benefit analysis, requirements gathering, options analysis, and success measurement. Students must hold senior standing and have successfully completed all other program course requirements before registering for this course. (Prerequisites: Minimum grade of C- in ITM 400, ITM 402, ITM 410, and ITM 425)

ITM 500 Business Technology Strategy 3 credits
This course introduces strategic and operational planning for the application of information systems with heavy emphasis on the alignment of information strategy to business strategy. An introduction to the four schools of strategic thought and how they relate to strategic planning and decision-making is identified. A review of the application of strategic models for the purpose of deploying corporate strategy is explored. This course draws upon current work, training or internship experience.

ITM 505 Ethics in Information Technology 3 credits
This course explores real-world information technology dilemmas and frameworks to identify ethical problems and reach ethical decisions. Its objective is to us these skills, grounded in ethical theory, to make informed decisions within fast-paced and emerging business environments.This course draws upon current work, training or internship experience.

ITM 510 Research in Information Technology 3 credits
As part of a research project identify the critical role I.T. plays in organizational development. This course will explore how to employ action learning to improve the competitiveness of the organization. Defining IT challenges from an operational and strategic perspective the class will explore adaptive learning technique by offering proven educational theories and practices to foster the required changes in your staff. Research of existing organizational learning theories and the historical problems that occur with companies will be conducted to understand how to research these issues and provide solutions for technology enablement of the business. This course draws upon current work, training or internship experience.

ITM 517 Computer Based Information Systems 3 credits
This course offers a holistic introduction to Information Systems (IS). It examines how organizational strategies are intertwined with the delivery of supporting technologies and informs on ethical and privacy obligations for all IS professionals. Students will learn the main tenets and knowledge that drives cyber security, data management, IT networking, E-commerce, and mobile computing. Social Computing, Customer Relationship and Supply Chain Management structures are also explored along with the symbiosis between big data, cloud computing and business analytics that drive all modern business initiatives and operations.

ITM 520 Procurement & Asset Management 3 credits
Learn financial tools leaders use to create value as they make technology decisions for their organizations. Apply these tools to business cases from the technology industry to increase skills in making data informed decisions. This course draws upon current work, training or internship experience.

ITM 530 Leadership Information Technology 3 credits
Explore leadership essentials, proven effective within the technology sector and beyond, and learn to distinguish when to lead and when to manage. Use these skills, recognizing leaders are found at all organizational levels, to ethically lead change and innovation. This course draws upon current work, training or internship experience.

ITM 535 Business Intelligence and Data Analytics 3 credits
Understand and describe the business intelligence (BI) methodology and concepts as well as the various types of analytics. Explore, analyze and visualize the data necessary for managerial decision making. Explore emerging technologies and their impact on analytics, BI, and business decision support. This course draws upon current work, training, or internship experience.

ITM 540 Information Security 3 credits
Analyze how information systems are designed to interact with people and carry out ethical business strategy. Design plans to secure enterprise#wide data and applications in a growing mobile environment. Assess risk and manage quality in working to meet auditing and compliance standards. Topics include business continuity and disaster recovery, virtualization, and the effects of compliance on infrastructure development.This course draws upon current work, training or internship experience.

ITM 545 IT Project Management 3 credits
This course identifies how to deliver on new ideas and strategies by practicing traditional and agile methodologies and processes that help bring new products and services to the market. It builds on differing strategic approaches and project management techniques to manage innovation so that competitive strategy and new ideas can be realized. An understanding of the DevOps model that facilitates an effective organization and how it relates to delivering new products and how to leverage it will be explored. This course draws upon current work, training or internship experience.

ITM 547 Database Management 3 credits
This course offers an overall understanding of data management by learning how to design, implement and manage databases along with other data management systems. Data modeling, designing relational databases, entity relationship modeling, entity clustering and the use of SQL languages for extracting important datapoints is explored. Students will learn more about distributed database management systems, and data warehouses to create big data capability in support of data analytics, data science and decision-making.

ITM 550 Technology Management and Innovation 3 credits
Utilize contemporary case studies to compare software and infrastructure development methodologies such as the Systems Development Lifecycle to Agile Methods. Apply learned skills to key decision-making tasks such as in-house development, outsourcing, software testing, and cloud computing.This course draws upon current work, training or internship experience.

ITM 555 Capstone 3 credits
This course integrates knowledge learned throughout the program. Demonstrate an understanding of content obtained by completing a research paper addressing an issue in an industry. Ethically incorporate technical and business knowledge skills through identifying key issues by doing a thorough search of academic and practitioner knowledge to support a stated thesis. This course draws upon current work, training or internship experience. This course draws upon current work, training or internship experience.

ITM 560 Data Science and Data Analytics 3 credits
This course looks at a managerial approach to understanding business intelligence (BI) systems. Its objective is to help future managers use and understand analytics by providing a solid foundation of BI that is reinforced with hands-on practice. This includes an introduction of business intelligence, data analytics and data science. It explores descriptive, predictive and prescriptive analytics. It identifies big data concepts and tools. It also describes future trends, privacy and managerial considerations in Analytics.

ITM 562 Business Statistics 3 credits
This course in data analysis and statistical inference requires no background in statistics. Its objective is to provide individuals the basic statistical tools for analyzing and interpreting data. It will explore how to define and collect data. It will provide guidance in organizing and visualizing variables, defining numerical descriptive measures and understanding statistical probability. It will look at testing techniques such as Hypothesis Testing, Two sample and one-way ANOVA tests, Chi-Square Tests, Simple Linear Regression and Multiple Regression. A review of Descriptive, Predictive and Prescriptive Analytics and how it is supported by statistical inference will be reviewed.

ITM 564 Programming for Analysts 3 credits
This course in programming provides for a broad range of students who need to work with data. It uses the open-source R statistical package. It introduces the programming of statistical graphics simulation methods, numerical optimization, and computational linear algebra.

ITM 566 Business Intelligence and Decision Support Systems 3 credits
This course provides an introduction to decision support systems (DSS) for business intelligence (BI). It looks at decision-making, data components, model components and the use of user interfaces. It explores designing a DSS using object-oriented technologies and implementing it with a recognition of how to evaluate a deployed system. Executive information and dashboards coupled with group decision support systems will be identified.

ITM 568 Big Data Analytics 3 credits
This class will explore various aspects of Big Data Analytics. It will look at the tools, technology, applications, use cases and research directions in the field. Initially it will explore challenges in big data and big data analytics. The Big Data Reference Model will be examined. A look at big data analytic tools such as Hadoop, Spark and Splunk will be completed. Looking at predictive models used in analytics and a framework for minimizing data leakage will be explored. Storing big data will be examined plus a study of big data cluster analysis will be done. Finally, non-linear extraction of big data analytics will be described along with data mining and large-scale data clustering.