Information Systems Management (QM)

QM 6300. Special Studies in Quantitative Management. 3 Semester Hours.
Selected topics vary from semester to semester. (Semester Offered Varies. Check with Program Director.).

QM 6308. Applied Statistics and Decision-Making. 3 Semester Hours.
Most statistics courses focus on teaching how to derive univariate or multivariate statistics and how to interpret the results of statistical analyses, but they do not teach how statistics and statistical analyses can be used to evaluate and reach decisions about real problems or issues. The course will focus on developing the knowledge and skills necessary for translating problems, challenges, or questions into testable hypotheses amenable to statistical analyses. The course will cover descriptive statistics (univariate and multivariate) and hypotheses testing with inferential statistics (t-tests, Analysis of Variance, correlation, and multiple regression). For each type of statistical technique, a case study will be used to show the application of the technique and accurate interpretation of results. (Semester Offered Varies. Check with Program Director.).

QM 6320. Introduction to Business Analytics. 3 Semester Hours.
The primary focus of this course is to help the students learn programming and analytics skills necessary to find analytics solutions to business-related problems and opportunities. The course introduces students to the open-source programming language R. (Semester Offered Varies. Check with Program Director.).

QM 6352. Enterprise Resource Planning. 3 Semester Hours.
This course explores the principles of fundamental business processes and the importance of information systems in the integration of these processes throughout the enterprise. The course focuses on procurement, production, sales and distribution functions and utilizes SAP as an example of an ERP system. The course helps both functional area and IT managers understand respective roles of users and enterprise architects in the selection, preparation, and implementation of large and complex enterprise applications. (Semester Offered Varies. Check with Program Director.).

QM 6361. Financial Modeling. 3 Semester Hours.
This course is intended to provide a seminar of the principles associated with the application of information technologies in business organizations. It will cover hardware technologies, software applications, personnel, procedures, and issues associated with management of an information systems function. It will also address the challenges IT managers face managing IT enables organizations. (Semester Offered Varies. Check with Program Director.).

QM 7311. Managing Business Projects. 3 Semester Hours.
This course provides a management perspective on managing projects. It examines the basic nature of managing business, public, engineering and information systems projects, including the specific insights and techniques required. Issues such as the selection and management of the project team, project initiation, implementation and termination are addressed. (Semester Offered Varies. Check with Program Director.).

QM 7313. AI-Enabled Project Management and Execution. 3 Semester Hours.
This course focuses on how advances in artificial intelligence and data analytics are changing the way organizations plan and manage projects. It examines the use of predictive models, automation tools, and decision-support systems in core project management activities, including project selection, scheduling, resource allocation, and performance monitoring. Students integrate analytical approaches into project planning and control processes to improve forecasting, risk assessment, and coordination across functional areas. The course also addresses how project initiatives can be evaluated and managed in relation to organizational needs and operational constraints, particularly in projects involving digital transformation and technology adoption. In addition, attention is given to the practical and managerial implications of using AI-supported tools in project environments, including accountability, stakeholder communication, and the ethical use of data in decision-making. Prerequisites: QM 7325. (Semester Offered Varies. Check with Program Director.).

QM 7315. Applied Business Analytics. 3 Semester Hours.
With the ever-increasing availability of data and information from variety of sources, business analytics are becoming a critical capability for enterprises of all types that can use those data and information effectively to drive rapid, precise and profitable analytics-based decisions to create strategic advantage. This course is designed to increase students' fundamental business knowledge while imparting the technical and analytical skills they need to advance in the fast-growing business analytics area. It prepares students to model and manage business decisions with application of business analytics techniques to identify opportunities for creating business value. This course uses R – an open source statistical program for computing and graphics. (Semester Offered Varies. Check with Program Director.).

QM 7323. AI-Driven Decision Making. 3 Semester Hours.
This course explores how organizations use artificial intelligence to support managerial decision-making and strategic problem-solving. Rather than focusing on technical model development, the course emphasizes how managers evaluate AI opportunities, interpret AI-generated insights, and integrate AI into business decision processes. Through business cases, industry examples, and applied projects, students examine how AI shapes decisions in areas such as customer experience, risk management, operations, and strategy. The course also discusses key managerial challenges related to AI adoption, including governance, data quality, ethics, and organizational readiness. By the end of the course, students will be able to evaluate where AI can create value and design practical approaches for integrating AI into organizational decision-making. Prerequisites: QM 7325. (Semester Offered Varies. Check with Program Director.).

QM 7325. Management of Information and Technology. 3 Semester Hours.
This course examines a broad range of topics in the management of technology, information systems and organizational issues in exploiting new technology. The course explores concepts of applying computer information systems and communications technology to provide an effective framework for managing competitiveness in an environment of rapid global change. Managing R &D, systems acquisition, decision-making, and links to other functional areas in the corporation are emphasized. (Fall, Spring).

QM 7332. Values Driven Leadership Lab I. 3 Semester Hours.
This is the first of two interactive laboratory courses designed to develop socially responsible and sustainable approaches to business, emphasizing technology. The lab builds essential skills in budgeting, financial modeling, marketing, data analytics, and international business. Through hands-on projects and collaborative learning, students gain the analytical and technological proficiency required to drive innovation in today's business landscape. This course requires on-campus attendance on three Saturdays. (Spring).

QM 7333. AI Strategy and Business Value. 3 Semester Hours.
This course provides a strategic framework for leveraging Artificial Intelligence to drive business value and competitive advantage. Beyond theory, students explore the practical mechanics of Machine Learning and Deep Learning to unlock their transformative potential. The curriculum emphasizes applying AI to product development, operational efficiency, and business model innovation for solving real-world challenges. Participants will learn to enhance executive decision-making using data-driven insights while managing the dynamics of human-AI collaboration. By merging technical literacy with leadership principles, the program empowers professionals to design and execute robust AI strategies. Ultimately, learners gain the foresight to anticipate future AI trends, ensuring their organizations lead in a rapidly evolving market. This course is essential for those seeking to transition from digital awareness to AI-centric leadership. Prerequisites: QM 7325. (Semester Offered Varies. Check with Program Director.

QM 7335. Data Story Telling with Visual Analytics. 3 Semester Hours.
In this current data-driven society, with the advent of visualization tools that do not require coding, data storytelling is a desired and an attainable skillset for people with varying levels of technical ability. This course teaches students how to develop meaningful data stories that make visual insights accessible for relevant audiences. Students will learn how to utilize Tableau, the industry standard in data visualization tools and the most popular data visualization program today, to make sense of and visualize publicly available data to derive meaningful business intelligence. Specifically, students will learn how data visualization techniques can help bring complex data to life, how to design effective visualizations, and how to create intuitive, meaningful, visualizations using Tableau. Course discussion will explore techniques for visualizing multivariate, temporal, text-based, geospatial, hierarchical, and network data using case studies drawn from variety of industries. (Semester Offered Varies. Check with Program Director.).

QM 7337. Visual Analytics & Management. 3 Semester Hours.
This course focuses on how to take the results from various data analytics processes to create powerful and convincing visual analytics for understanding the "how" and "why" behind large data. The course teaches Tableau as well as code writing in R to create charts and infographics to communicate information gleaned from vast quantities of data. Prerequisite: BA 6320 Sec C. (Semester Offered Varies. Check with Program Director.).

QM 7343. Responsible AI Governance. 3 Semester Hours.
This course examines how organizations design governance systems to ensure the responsible use of artificial intelligence. As AI technologies become embedded in business processes, firms must address challenges related to risk management, data governance, regulatory compliance, and stakeholder accountability. Students explore how organizations establish frameworks to guide the development, deployment, and monitoring of AI systems. The course addresses issues such as algorithmic bias, enterprise AI risk management, sustainability considerations, and emerging global AI regulations. Through conceptual frameworks and business cases, students learn how organizations can balance innovation with responsible AI practices. Prerequisites: QM 7325. (Semester Offered Varies. Check with Program Director.).

QM 7345. Predictive Modeling. 3 Semester Hours.
This course is focused upon applying statistical techniques to the processing and interpretation of data from various industries and disciplines. This course introduces statistical models as they are used in predictive analytics. It addresses issues of statistical model specification and model selection, as well as best practices in developing models for management. Students will learn the role of analytics within an organization as well as the relationship between analytics and other areas. Students will learn the basics of each technique with an emphasis on understanding the technique, its uses and the benefits and limitations of the technique. It will also present best practices for managers and business analytic professionals who are upstream or downstream from the analysts. The primary and secondary analytic tool that will be used for the course are R and Microsoft Excel, respectively. (Semester Offered Varies. Check with Program Director.).

QM 7346. Using Data for Developing Business Intelligence. 3 Semester Hours.
This course applies to business intelligence principles and techniques to a comprehensive understanding of business. It also provides theoretical and practical understanding of core data mining concepts and techniques. It uses data mining software SAS Enterprise Miner to solve real world business problems using real projects. (Semester Offered Varies. Check with Program Director.).

QM 7353. Project management. 3 Semester Hours.
This course provides a management perspective on managing projects. It examines the basic nature of managing business, public, engineering, and information systems projects, including the specific insights and techniques required. Issues such as the selection and management of the project team, project initiation, implementation, and termination are addressed. Cross-listed with EG 7353. Students who have previously completed BA 7311 may not register for BA 7353.

QM 7375. MBA Internship. 3 Semester Hours.
The M.B.A. internship enables students in the full-time M.B.A. program to gain hands-on experience with either a for-profit or not-for profit organization during a 12 week period during the summer. Students must successfully complete a minimum of 20 hours weekly over a 12-week period (mid-May through mid-August) and other course requirements to receive three (3) hours of graduate credit. To be eligible for an internship for elective credit, M.B.A. students must complete the Application for M.B.A. Internship and have it signed by the M.B.A. Director to verify that they meet the following requirements: they must be enrolled in regular status in the One-year M.B.A., not be actively employed, not be receiving tuition reimbursement, did not receive more than three hours of credit for internships as an undergraduate, have completed all prerequisite-knowledge requirements and a minimum of 12 hours of M.B.A. core courses with a cumulative GPA of 3.25. Requires Program Director Approval. Check with Program Director.

QM 8318. Supply Chain Management. 3 Semester Hours.
This course provides an understanding of the strategic role of supply chain management, key drivers of supply chain performance, and analytical tools and techniques for supply chain analysis. The course focuses on the interrelationship of these concepts. Topics include issues such as supply chain planning, design, and operation; inventory, transportation, information, and technology; and logistics and supply chain methodologies.

QM 8321. Management Control Systems. 3 Semester Hours.
This course examines the design and implementation of formal performance measurement and management control systems within the organization. The examination includes the design and implementation of profitability and cost management systems at the organizational and sub-organizational levels. It also includes consideration of the characteristics of measurement systems and their compatibility with the organization's competitive strategy. BA6365 or BA 7355.

QM 8352. Business Intelligence. 3 Semester Hours.
This course aims to equip students with highly demanded business analytics skills in the current job market. The three key objectives are to: 1) provide a comprehensive and in-depth knowledge of Business Intelligence principles and techniques; 2) provide a theoretical and practical understanding of core data mining concepts and techniques; and 3) provide hands-on experience in applying these techniques to solve real world business problems using data mining software. The concepts in this course will be taught using a combination of lecture notes and reading materials, threaded discussions on the LMS, case study analysis, and hands-on exercises on data mining activities using SAS Enterprise Miner. To maximize learning, scope of discussion and time spent on different topics will be adjusted according to the background and interests of the students. (Semester Offered Varies. Check with Program Director.).