INFORMATION SYSTEMS

ISM 5021 Information Systems in Organizations 3 Credits
Grading Scheme: Letter Grade
Introduction for graduate students with minimal microcomputer operation skills. Topics include the range of computer information technology available, language types and procedural languages, applications in organizations, management of resources, and trends. Students use microcomputers in the College's computing laboratories.
Prerequisite: consent of instructor. Designed for MBA students.

ISM 6022 Management Information Systems 2 Credits
Grading Scheme: Letter Grade
Policy and management issues surrounding information systems in today's enterprises. Strategic use, organizational impact, project management, human resource issues, and other topics important to understanding information systems in business.

ISM 6128 Advanced Business Systems Design and Development I 2 Credits
Grading Scheme: Letter Grade
Object-oriented analysis and model specification for business software systems. Articulation of key requirements (data, processes, physical components, deployment) using logical modeling methodologies.

ISM 6129 Advanced Business Systems Design and Development II 2 Credits
Grading Scheme: Letter Grade
Continuation of ISM 6128. Focuses on object-oriented design of systems. How to translate business requirements into specific task and component requirements.
Prerequisite: ISM 6128, admission to the Master of Accounting program, or consent of instructor.

ISM 6215 Business Database Systems I 2 Credits
Grading Scheme: Letter Grade
Fundamentals of data storage and retrieval models for business applications. Data modeling and database design principles. Theoretical foundations and exercises presented for relational data model and SQL.
Prerequisite: ISM 6128.

ISM 6216 Business Database Systems II 2 Credits
Grading Scheme: Letter Grade
Continuation of ISM 6215. Focuses on implementation and programming issues.
Prerequisite: ISM 6215.

ISM 6222 Business Telecom Strategy and Applications I 2 Credits
Grading Scheme: Letter Grade
Survey of networking technologies used in WWW and e-commerce. TCP/IP networks and related security, networking hardware, and Internet software standards.

ISM 6223 Business Telecom Strategy and Applications II 2 Credits
Grading Scheme: Letter Grade
Introduces traditional telephony. Discusses issues companies face on consolidation of voice and data networks. Technological developments, product announcements, and market activity. Ultimate focus is on strategy of voice/data integration.
Prerequisite: ISM 6222 or consent of instructor.

ISM 6224 Business Telecom Strategy and Applications III 2 Credits
Grading Scheme: Letter Grade
Telecommunications analysis and design. Both tactical and strategic issues concerning integration.
Prerequisite: ISM 6223 and ISM 6129.

ISM 6226 Business Telecom Strategy and Applications 3 Credits
Grading Scheme: Letter Grade
Introduction and overview of the field of business communications. Understanding telecommunications components and terminology applied to business in this age of electronic communication.

ISM 6236 Business Objects I 2 Credits
Grading Scheme: Letter Grade
Overview of main tools for business objects in enterprise programming, with hands-on experience. Distributed object models, component architectures, design methodologies and patterns, languages and development environments, and databases and repositories.
Prerequisite: ISM 6215 , ISM 6222 , and ISM 6258.

ISM 6239 Business Objects II 2 Credits
Grading Scheme: Letter Grade
Extends concepts and tools of ISM 6236 to include practical aspects of using business objects in enterprise systems. Focus on overview of ERP systems, proxies, proxy repositories, and wrapping legacy systems with objects.
Prerequisite: ISM 6236.

ISM 6251 Programming for Business Analytics 2 Credits
Grading Scheme: Letter Grade
Programming as a tool to create business analytics applications. Covers object-oriented concepts for systems development and language specific libraries to develop business analytics applications.
Prerequisite: ISM 6257

ISM 6257 Intermediate Business Programming 2 Credits
Grading Scheme: Letter Grade
Application in business systems. Classes, inheritance, polymorphism, interfaces, error handling, multi-threading, database connectivity, and their use in business information systems.
Prerequisite: Student must be a Graduate student in Business Administration or Accounting in order to register

ISM 6258 Advanced Business Programming 2 Credits
Grading Scheme: Letter Grade
Event-driven, component-based programming. GUI components, and client end system design and implementation in distributed systems, as well as database development, networking, security, and object-oriented concepts.
Prerequisite: ISM 6257.

ISM 6259 Business Programming 2 Credits
Grading Scheme: Letter Grade
An advanced system-implementation course to teach client end system design and implementation. Topics include object-oriented systems development, databases, networking, security, and web application development.
Prerequisite: ISM 6258.

ISM 6405 Business Intelligence 2 Credits
Grading Scheme: Letter Grade
Mastering emerging business intelligence technologies such as data warehousing, online analytic processing (OLAP), data mining and text mining in generating valuable control and decision-support business intelligence for many organizations in adjusting to their competitive business environment.
Prerequisite: ISM 6215(C) & QMB 6358(C).

ISM 6413 Introduction to Python 2 Credits
Grading Scheme: Letter Grade
The course is designed to teach Python as a tool to create business analytics and visualization applications. The emphasis of the course is on programming constructs for analytics. A thorough introduction to Object-Oriented programing concepts with Python will be given. Python libraries designed for data preparation, transformation and wrangling will be reviewed with sample applications.

ISM 6423 Data Analysis for Decision Support 2 Credits
Grading Scheme: Letter Grade
Overview of various solution methods for data analysis programs such as clustering, classification, and regression that occur in business decision making. How methods support decision making.
Prerequisite: ISM 6405

ISM 6485 Electronic Commerce and Logistics 2 Credits
Grading Scheme: Letter Grade
Underlying technologies that herald innovations. How to capitalize on new electronic commerce and logistics in business.

ISM 6486 eCommerce Technologies 2 Credits
Grading Scheme: Letter Grade
Database management systems, systems design and Web-page design, human computer interface issues, artificial intelligence methods (such as data mining and expert systems), and intelligent software agents.

ISM 6487 Risks and Controls in eCommerce 2 Credits
Grading Scheme: Letter Grade
Strategic IT planning, policies and control; risk assessment, reliability, benchmarking and monitoring; privacy and security models and technologies; availability, continuity and compliance testing; and threat monitoring.

ISM 6562 Business Data Presentation and Visualization 2 Credits
Grading Scheme: Letter Grade
Business Data Presentation and Visualization
Prerequisite: ISM 6215

ISM 6942 Electronic Commerce Practicum 2 Credits
Grading Scheme: Letter Grade
Projects such as developing e-commerce business plans, constructing e-commerce sites, etc.

MAN 5501 Management 3 Credits
Grading Scheme: Letter Grade
Introduction to the general class of problems associated with managing production facilities.
Prerequisite: QMB 5305. Designed for MBA students.

MAN 5502 Production and Operations Management 2 Credits
Grading Scheme: Letter Grade
Introduction to POM, which focuses on design and control of productive systems within organizations.
Prerequisite: QMB 5304 or QMB 5305 or QMB 6358.

MAN 6508 Management of Service Operations 2 Credits
Grading Scheme: Letter Grade
Case studies and problems, including systems design, operation, and control. Emphasizes waiting-line systems.

MAN 6511 Contemporary Issues in Supply Chain Analytics 2 Credits
Grading Scheme: Letter Grade
In this course, the focus is on using analytics to address supply chain decision making. More specifically, students are exposed to analytical approaches for addressing decisions on multi-echelon supply chain inventories, revenue management, supply chain contracts, supply chain sustainability, and risk pooling.

MAN 6528 Principles of Logistics/Transportation Systems 2 Credits
Grading Scheme: Letter Grade
Logistics management in current business environment.
Prerequisite: QMB 6755.

MAN 6573 Purchasing and Materials Management 2 Credits
Grading Scheme: Letter Grade
Industrial/institutional purchasing cycle for operating supplies, raw materials, components, and capital equipment in the context of materials management organizational concepts. Basic principles, policies, and procedures for requirement determination; procurement decision process; purchasing function; and materials management concept, organization, and philosophy.

MAN 6575 Purchasing and Supplier Relationship Management 3 Credits
Grading Scheme: Letter Grade
Basic concepts and tools for purchasing and supply-chain management. Procurement cycle, information flow, supplier selection, and internet procurement.

MAN 6581 Project Management 2 Credits
Grading Scheme: Letter Grade
Organizational role of the manager. Ways of structuring project organizations. Fundamentals of scheduling. Time and cost tradeoffs. Budgeting and cost estimation. Monitoring.

MAN 6598 Logistics and Distribution Management 3 Credits
Grading Scheme: Letter Grade
Activities that make products available to consumers at convenient locations, in the required quantities, and at minimum cost to the company.

MAN 6617 International Operations/Logistics 2 Credits
Grading Scheme: Letter Grade
Global delivery/distribution channels, coordinating production/delivery operations in international markets, optimizing use of transportation networks, and designing information/communications systems that span supply chain.

MAN 6619 International Logistics 3 Credits
Grading Scheme: Letter Grade
Strategic issues in managing international supply chains, managing the exchange rate, and the operating risks in global supply chains.

QMB 5303 Managerial Statistics 3 Credits
Grading Scheme: Letter Grade
Basic concepts and methods of probability and statistics, stressing applications in analyzing and solving business problems.
Prerequisite: Basic statistics, calculus. Designed for M.B.A. students.

QMB 5304 Introduction to Managerial Statistics 2 Credits
Grading Scheme: Letter Grade
Basics of modeling and analyzing problems that involve business decision making under uncertainty. Techniques for organizing and formulating decision problems. Probability theory and some basic statistical concepts and procedures.

QMB 5305 Advanced Managerial Statistics 2 Credits
Grading Scheme: Letter Grade
Builds on QMB 5304. Basic concepts in collection, analysis, and interpretation of data, emphasizing the capabilities of different statistical methods and business applications. Focuses on how business decisions can be informed by statistical analysis and how to apply computer software tools to business decisions.
Prerequisite: Designed for M.B.A. students.

QMB 6317 Artificial Intelligence Methods in Business 2 Credits
Grading Scheme: Letter Grade
This course is designed to engage you building artificial intelligence (AI) models for business using modern tools.

QMB 6358 Statistical Analysis for Managerial Decisions I 2 Credits
Grading Scheme: Letter Grade
Data-application techniques for managerial problems; difficulties that can arise in applying the techniques and interpreting results. Experience using computerized procedures; may require substantial amount of case analysis.

QMB 6359 Statistical Analysis for Managerial Decisions II 2 Credits
Grading Scheme: Letter Grade
Data application techniques with emphasis placed on relationships that occur over time. Substantial amount of case analysis, as well as applications programming using industry standard software products.
Prerequisite: QMB 6358 or consent of instructor.

QMB 6616 Business Process Analysis 3 Credits
Grading Scheme: Letter Grade
Critical business analytical approaches, including linear programming, project scheduling, waiting-line theory, and time-series analysis.

QMB 6693 Quality Management and Control Systems 2 Credits
Grading Scheme: Letter Grade
Philosophy of total quality management and technical aspects of quality design and measurement systems.
Prerequisite: QMB 5305 or equivalent or consent of instructor.

QMB 6755 Managerial Quantitative Analysis I 2 Credits
Grading Scheme: Letter Grade
Survey of deterministic models for managerial decision making. Emphasizes mathematical programming.

QMB 6756 Managerial Quantitative Analysis II 2 Credits
Grading Scheme: Letter Grade
Using deterministic and stochastic models for decision making. Integer and nonlinear programming, goal programming, multiple-objective linear programming, and decision theory. Applied problem solving and case studies, using appropriate software.
Prerequisite: QMB 6755.

QMB 6845 Supply Chain Analytics: Gaming the Supply Chain 2 Credits
Grading Scheme: Letter Grade
Effective supply chain coordination using analytical tools. The course uses a simulation/gaming format. After a brief description of the analytical tools relevant to a topic, students will be required to use these tools in simulations/games.
Prerequisite: QMB 6755.

QMB 6905 Individual Work in Information Systems and Operations Management 1-5 Credits, Max 10 Credits
Grading Scheme: Letter Grade
Reading and/or research.
Prerequisite: consent of department.

QMB 6910 Supervised Research 1-5 Credits, Max 5 Credits
Grading Scheme: S/U
Supervised Research

QMB 6930 Special Topics in Information Systems and Operations Management 1-4 Credits, Max 16 Credits
Grading Scheme: Letter Grade
Variable content. In-depth study of topics not offered in other courses or topics of special current significance.

QMB 6938 Analytics Processes for Business – Bootcamp 1 Credit
Grading Scheme: Letter Grade
The ultimate objective of the course is to prepare you to use one of the most comprehensive business analytics tools effectively within a standard analytics process framework. This tool and framework can be applied to almost all business analytics and modeling efforts, including Artificial Intelligence.

QMB 6940 Supervised Teaching 1-5 Credits, Max 5 Credits
Grading Scheme: S/U
Supervised Teaching

QMB 6941 Internship 1-4 Credits, Max 6 Credits
Grading Scheme: S/U
Career-related experience that is not attainable in a classroom situation. Participation in such an internship will give employers an opportunity to identify earlier those students they may wish to employ upon graduation.

QMB 6942 Analytics Projects Practicum 1 1 Credit
Grading Scheme: Letter Grade
This course is designed to engage you in solving “real world” business analytics problems. You will be a part of a small team of students that work with a business or organization. In this first practicum module, the focus will be on the first key steps of the analytics process.
Prerequisite: Analytics Processes for Business- Bootcamp.

QMB 6943 Analytics Practicum 2 1 Credit
Grading Scheme: Letter Grade
This course is designed to engage you in solving “real world” business analytics problems. You will be a part of a small team of students that work with a business or organization. In this second practicum module, the focus will be on the modeling steps of the analytics process.
Prerequisite: Analytics Practicum 1.

QMB 6944 Analytics Practicum 3 1 Credit
Grading Scheme: Letter Grade
This course is designed to engage you in solving “real world” business analytics problems. You will be a part of a small team of students that work with a business or organization. In this third module, the focus will be on the Evaluation and Deployment steps of the analytics process.
Prerequisite: Analytics Practicum 2.

QMB 6945 ISOM Department Business Practicum 2 Credits, Max 6 Credits
Grading Scheme: Letter Grade
Students will solve “real world” business problems in business analytics, data science, information technology, or supply chain management. Small student groups will work with a business or organization to analytically solve a real-world problem. This permits each team to include students with skills to complete the projects. University partners will provide the business problems to be solved and the datasets that students use to develop models and recommendations.
Prerequisite: Programming skills are recommended.

QMB 6957 International Studies in Quantitative Methods 1-4 Credits, Max 12 Credits
Grading Scheme: S/U
International Studies in Quantitative Methods
Prerequisite: admission to an approved study abroad program and permission of department.

QMB 6971 Research for Master's Thesis 1-15 Credits
Grading Scheme: S/U
Research for Master's Thesis

QMB 7565 Stat Research Methods 3 Credits
Grading Scheme: Letter Grade
Stat Research Methods

QMB 7931 Special Topics in Information Systems and Operations Management 1-4 Credits, Max 9 Credits
Grading Scheme: Letter Grade
Recent literature and state-of-the-art theory and methods in both the decision and the information sciences.
Prerequisite: consent of instructor.

QMB 7933 Seminar in Information Systems and Operations Management 1-4 Credits, Max 50 Credits
Grading Scheme: Letter Grade
Historical foundations and evolutionary development of concepts in decision and information sciences, emerging problems and future trends.
Prerequisite: consent of instructor.

QMB 7979 Advanced Research 1-12 Credits, Max 999 Credits
Grading Scheme: S/U
Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for students who have been admitted to candidacy.

QMB 7980 Research for Doctoral Dissertation 1-15 Credits, Max 999 Credits
Grading Scheme: S/U
Research for Doctoral Dissertation