

# ISTM - MGMT INFO SYSTEMS

## ISTM 601 Fundamentals of Business Programming

**Credits 3. 3 Lecture Hours.**

Business Application Development using both procedural and object-oriented programming techniques; use of component based software design and development for distributed business software systems.

**Prerequisite:** Graduate business classification or approval of instructor.

## ISTM 610 Business Data Communications

**Credits 3. 3 Lecture Hours.**

Concepts and technology of on-line and network-based systems in business; analysis of data communication requirements, design, selection and application of network technologies including wide and local area networks, distributed processing, network architecture, and systems management and control; software simulation projects emphasized. Classification 6 students may not enroll in this course.

**Prerequisites:** Graduate classification.

## ISTM 612 Management Information Systems

**Credits 1 to 3. 1 to 3 Lecture Hours.**

Concepts, theories, and the strategic role of information systems as applied to business organizations; highly integrative/cross functional in nature. Classification 6 students may not enroll in this course.

**Prerequisite:** Enrollment is limited to MBA students.

## ISTM 615 Business Database Systems

**Credits 3. 3 Lecture Hours.**

Information processing and management involving applications and user orientation in a business environment using commercially available database management systems.

**Prerequisite:** Knowledge of one programming language.

## ISTM 620 Systems Analysis and Design

**Credits 3. 3 Lecture Hours.**

Methodologies, techniques, and tools for information systems analysis and design; the analysis and logical design of business processes and management information systems focusing on the systems development life cycle; techniques for logical system design.

**Prerequisite:** ISTM 615 or concurrent enrollment.

## ISTM 622 Advanced Data Management

**Credits 3. 3 Lecture Hours.**

Data and database management and advanced SQL techniques; issues of data security, backup and recovery, large scale databases, master data management, concurrent user data access, scalability, and policies.

**Prerequisites:** ISTM 615 or equivalent; graduate classification in business.

## ISTM 624 Advanced Systems Analysis and Design

**Credits 3. 3 Lecture Hours.**

Advanced topics in business systems analysis and design; alternative methodologies such as agile development, extreme programming, Rational Unified Process; Unified Modeling Language; bench marking and best practices for systems development; cost/benefit analysis, estimation and budgeting for business information systems; testing; patterns, domain-driven design; process modeling; service-oriented architecture and cloud computing.

**Prerequisite:** ISTM 620 or equivalent; graduate classification in business.

## ISTM 630 MIS Project Management and Implementation

**Credits 3. 3 Lecture Hours.**

Advanced coverage of systems development topics with emphasis on the management and implementation of business computing systems; group project orientation to include feasibility analysis, alternative evaluation and selection, and management approval; use of software engineering tools where appropriate. Classification 6 students may not enroll in this class.

**Prerequisite:** ISTM 620.

## ISTM 631 Information Systems Design and Development Project

**Credits 3. 3 Lecture Hours.**

Design and delivery of functional, multi-platform application system using current technologies; user interface design emphasized; issues of mobile device forms, software delivery, and development.

**Prerequisites:** Graduation classification; ISTM 622; ISTM 630.

## ISTM 635 Business Information Security

**Credits 3. 3 Lecture Hours.**

Explores the business, managerial, and technological aspects of information security; analysis, design, and implementation issues surrounding effective information security; authentication, authorization, availability, business continuity planning, confidentiality, disaster recovery, encryption, firewalls, fraud protection, security policy development, integrity, risk management, virus protection, VPNs and wireless security. Classification 6 students may not enroll in this course.

**Prerequisite:** ISTM 610.

## ISTM 637 Data Warehousing

**Credits 3. 3 Lecture Hours.**

Provides an understanding of the process by which a data warehouse system is designed and developed along with the underlying concepts and software systems; includes OLAP models and their differences with standard OLTP models.

**Prerequisite:** ISTM 615 or approval of instructor.

## ISTM 643 Corporate Information Planning

**Credits 3. 3 Lecture Hours.**

Concepts regarding the design and use of computer-based management information and decision support systems; combinations of computing hardware and software and design concepts evaluated to meet managers' information needs. Classification 6 students may not enroll in this course.

**Prerequisites:** ISTM 615 or equivalent or approval of instructor.

## ISTM 645 IT Security Controls

**Credits 3. 3 Lecture Hours.**

Familiarization with planning, design, and implementation of controls to minimize risks to business information; focus on the importance of managing business information security; introduction to the tools, concepts and theories to safeguard an organization's information systems and IT assets; understanding of cryptography and application, operations, and physical security.

**Prerequisite:** ISTM 635.

## ISTM 650 Business Data Mining

**Credits 3. 3 Lecture Hours.**

Rationale for business Data Mining through case studies of business applications; process of data mining by using commercial Data Mining software on very large data sets; half of the course devoted to lab training in the use of Data Mining software including SAS Enterprise Miner and SPSS Clementine.

**Prerequisite:** STAT 652 or approval of instructor.

**ISTM 652 Customer Relationship Management and Technologies**

**Credits 3. 3 Lecture Hours.**

Theory and application of information technology in customer relationship management, construction of CRM infrastructures in organizations.

**Prerequisite:** ISTM 615.

**ISTM 655 Security Management and Compliance**

**Credits 3. 3 Lecture Hours.**

Familiarization with managerial and legal aspects of business information security; focus on importance of managing business information security and theories to help safeguard an organization's information systems and IT assets; understanding of Security Architecture and Design, Business Continuity and Disaster Recovery Planning, Laws Investigation and Ethics.

**Prerequisite:** ISTM 635.

**ISTM 660 Applied Predictive Analytics for Business**

**Credits 3. 3 Lecture Hours.**

Develop an understanding of the role of predictive analytics in shaping business outcomes; provide hands-on, practical approach to implementing predictive analytics tools for gaining competitive advantage in business.

**Prerequisite:** Graduate classification.

**ISTM 670 Capstone Information Systems Service Project**

**Credits 3. 3 Lecture Hours.**

Philanthropic collaboration with a not-for-profit or non-profit entity in a consultative capacity; hands-on experience with consulting practices, client relationships, systems analysis and design, project-management, IT development and implementation, digital collaboration tools, knowledge management, organizational change, and/or IT security.

**Prerequisite:** ISTM 615 or equivalent; ISTM 620 or equivalent; ISTM 630 or equivalent.

**ISTM 680 Human-Computer Interaction in Management Information Systems**

**Credits 3. 3 Lecture Hours.**

Techniques, principles and theory involved in designing and implementing interactive technologies based on humans' physical, cognitive and emotional resources; focus on application of qualitative and quantitative evaluation techniques for interaction phenomena; understanding interaction phenomena at the individual, group, organizational and societal levels; accessibility, cultural and ethical implications of human-computer interaction.

**Prerequisite:** Graduate classification.

**ISTM 681 Ethics of Information Systems**

**Credits 3. 3 Lecture Hours.**

Exposure to the main ethical issues surrounding information, data and the systems and artifacts that are used; examination of information in multiple business areas, including marketing, accounting, finance, HR, sales, operations and information systems.

**ISTM 682 Data Analytics Platforms**

**Credits 3. 3 Lecture Hours.**

Coding platforms used for data analytics; data wrangling, exploration and visualization; model testing and validation; machine learning techniques.

**Prerequisite:** STAT 601 or equivalent.

**ISTM 684 Professional Internship**

**Credits 1 to 6. 1 to 6 Other Hours.**

A directed internship in an organization to provide students with on-the-job training with professionals in organizational settings appropriate to the student's professional objectives. May be repeated for credit. Classification 6 students may not enroll in this course.

**Prerequisite:** Approval of committee chair and department head.

**ISTM 685 Directed Studies**

**Credits 1 to 4. 1 to 4 Other Hours.**

Directed study on selected problems using recent developments in business research methods. Classification 6 students may not enroll in this course.

**Prerequisite:** Approval of instructor and graduate advisor.

**ISTM 689 Special Topics in...**

**Credits 1 to 4. 1 to 4 Other Hours.**

Selected topics in identified area of information systems, operations management or management science. Classification 6 students may not enroll in this course. May be repeated for credit.

**ISTM 705 Information Management for Decision Making**

**Credits 1 to 4. 1 to 4 Lecture Hours.**

Policies, practices and procedures for management corporation information; relational database theory and relationship database management systems; data modeling; structured and unstructured data management; structured query language; secure data practices; information management for managerial decision making.

**Prerequisite:** For Master of Science in Business students only.