Information Systems Courses Descriptions

IS201: Foundations of Information Systems
Prerequisite: IT112

Systems concepts; system components and relationships; cost/value and quality of information; competitive advantage of information; specification, design, and re-engineering of information systems; application versus system software; package software solutions; procedural versus non-procedural programming languages; object oriented design; database features, functions, and architecture; networks and telecommunication systems and applications; characteristics of IS professionals and IS career paths; information security, crime, and ethics. Practical exercises may include developing macros, designing and implementing user interfaces and reports; developing a solution using database software.

IS271: Financial Accounting
Prerequisite: GS111

An introduction to the theory and practice of accounting and financial reporting. Topics include the accounting cycle, financial statements and accounting for assets, liabilities, equities, revenues and expenses.

IS302: Systems Simulation
Prerequisite: IT112,GS221

Concept of simulation; simulation examples; the statistics of simulation including methods of random number generation; analysis of simulation data; principles of simulation model design and their application to real life problems.

IS321: IS Theory and Practices
Prerequisite: IS201

decision support; quality; level of systems: strategic, tactical, and operational; system components and relationships; information systems strategies; roles of information and information technology; roles of people using, developing, and managing systems; IS planning and change management; human-computer interface; IS development process; evaluation of system performance; societal and ethical issues related to information systems design and use.

IS351: Organizational Behavior
Prerequisite: IS201

Studies concepts, theories and case studies concerning the behavior of people in modern business organizations. Analyzes the internal organization structure, and managerial roles and functions, in the business and other goal-oriented institutions. Studies theory and design of organizational structure, impact of work flow, leadership styles, and control systems on human behavior.

IS361: Systems Analysis and Design
Prerequisite: IS201

Life cycle phases: requirements determination, logical design, physical design, and implementation planning; interpersonal skills, interviewing, presentation skills; group dynamics; risk and feasibility analysis; group-based approaches: project management, joint application development (JAD), and structured walkthroughs; structured versus object oriented methodologies; RAD, prototyping; database design; software package evaluation, acquisition, and integration; global and inter-organizational issues and system integration; professional code of ethics.

IS362: Information Systems Development
Prerequisite: IS361

Topics may include selection of development environments and standards; structured, event driven, and object oriented application design; testing; software quality assurance; system implementation; user training; system delivery; post implementation review; configuration management; maintenance; multi-tiered architectures and client independent design.

IS372: Enterprise Resource Planning
Prerequisite: IS201

Examines the principles and techniques for planning and managing resource use in a manufacturing facility. Topics include ERP procurement, ERP vendors (Oracle, SAP, etc), ERP framework, Supply-chain management, demand management, inventory management, master scheduling, and material and capacity planning. Technology, architecture and implementing integrated package solutions will be introduced; Tools and functionality of leading enterprise systems; Implementation cases.

IS374: Principles of Marketing
Prerequisite: IS271

A general course in marketing theory and methods. Among topics discussed are the importance of marketing, the interrelationship of the different phases of marketing, the differences between the marketing of goods and services, wholesaling, retailing, pricing strategies, analysis of markets, and distribution.

IS452: Optimizations and Decision Making
Prerequisite: GS221,IS351

The art and science of operation research and problem solving; linear programming: formulations, graphical solution and algebraic solution; integer programming; optimization theory; sensitivity analysis and multi-objective optimization; decision theory and games: decisions under risk, decision tree, decision under uncertainty and game theory; optimizations and decision making in operations management.

IS475: E-Commerce and E-Marketing
Prerequisite: IS201,CN281

Introduction to the Internet and World Wide Web; concept of e-Business, e-Commerce and e-Marketplaces; e-Commerce models and applications; e-Commerce support services; Internet marketing and advertising; e-Supply chains; legal, ethical and social issues in e-Commerce; e-Commerce security; e-Business planning and analysis; Web-site design; building e-Commerce application and infrastructure.

IS491: Special topics in Information systems
Prerequisite: 90 Credit Hours

Emerging topics in information systems may be offered by the department.