MANAGEMENT INFORMATION SYSTEMS COURSE DESCRIPTION

QBA 1500 INTRODUCTION TO QUANTITATIVE BUSINESS ANALYSIS (3)
Prerequisite: MATH 1200
Introduction to basic business problem solving. The student will be introduced to basic quantitative business concepts and terminology, including time value of money analytics. Spreadsheet software will be used to solve quantitative problems and cases from six areas of business: accounting, finance, management, marketing, information systems and operations. The course will begin with a review of math and the use of spreadsheet software. A laptop computer with spreadsheet software (Microsoft Excel) is required for this course.

QBA 2000 STATISTICS FOR BUSINESS (3)
Prerequisite: INSY 1370/137; MATH 1200/162 or consent of the department
Beginning statistics with applications to business problems. Summary statistics including mean, median, standard deviation, outliers, etc. Tables and graphs including frequency tables, histograms, stem-and-leaf, etc. Probability distributions (binomial and normal). Expected value. Confidence intervals and tests of hypothesis about the population mean a proportion (z-test and t-test). Simple linear regression. Statistical software packages.

QBA 3260 DECISION ANALYSIS (3)
Prerequisite: MATH 1500/214; QBA 2000/200
The second course of the business statistics sequence. This course covers advanced statistical methods applying those methods to business problems including TQM, SPC, control charts (x and p) and process capability. Computer applications and software packages are included.

QBA 3290 ADVANCED DECISION MODELS (3)
Prerequisite: QBA 2000/200, 3260/226
Methods of Assessing Probability Distributions, Non-Parametric Statistics, Risk Analysis, Expected Value Method, Payoff Table Approach, Test of Randomness, Bayesian Analysis of Decision, and Subjective Probability in Decision Making.

QBA 3310 BUSINESS FORECASTING (3)
This course covers regression analysis and forecasting of financial data. A review of random variables and their distribution, including expected values, covariance and variance of random variables, as well as functions of random variables are properly treated. Half of the course covers ordinary least square regression, with an emphasis on diagnostics and forecasting. Moving averages, smoothing methods and univariate time series models used in forecasting will be introduced in the second half. The course takes an algebraic approach with an emphasis on problem solving and forecasting and uses

QBA 3500 QUANTITATIVE BUSINESS APPLICATIONS (3)
Prerequisite: QBA 2000/200
This is a computer intensive course using Stat Tools and @RISK from Palisades Corporation. Both Stat Tools and @RISK operate within an Excel spreadsheet. The covered topics include a brief summary of the material from QBA 2000/200 but now the statistical problem solving will be done on the computer, using Stat Tools and @RISK. The new topics will include regression, time series, and quality control, and Monte Carlo Simulation, to name a few. This course uses a "hands-on" approach with the technology of computerized software. Class sizes are small because a large amount of class time will be of an interactive nature. Think of the professor as a coach guiding the student through the statistical "drills" with commentary on the data, assumptions and underlying theory. The goal here is to reach optimal business decisions under uncertainty.

INSY 1360 INTRODUCTION TO COMPUTERINFORMATION SYSTEMS (3)

Fundamentals of information systems, what they are, how they affect organizations. Technical and organizational foundations of information systems, building information systems, managing information system resources. Different topics will be covered in this course including but not limited to computer hardware technologies, computer software technologies, computer network technologies, Internet technologies and the Worldwide Web, operating systems technologies, databases technologies, and multimedia technologies.

INSY 1370 MICROCOMPUTER APPLICATIONS IN BUSINESS (4)

Survey of microcomputer software applications in business from the perspective of the individual user. Standard software packages available to support a micro-computer based executive workstation are reviewed. These include word processors, electronic spreadsheets, database management systems, graphics, and accounting and other common application packages.

INSY 2840 INTRODUCTIONTOOBJECT-ORIENTEDPROGRAMMING (3)

Prerequisites: INSY 1360/136

This course is an introduction to program design and development. Students apply a structured, multiphase program development process that features a series of steps involving understanding of a problem, formal problem definition, and graphic design methodologies (particularly flow charts). A study of the program structure, data types, operators, input/output statements, decision, loops, arrays, strings and GUI using an object-oriented programming language.

INSY 2900 E-COMMERECE (3)

Prerequisites: INSY 1370/137 or consent of the department

This course presents concepts and skills for the strategic use of e-commerce and related information technology from   three perspectives: business to consumers, business to business, and intra-organizational. Examination of e-commerce in altering the structure of entire industries, and how it affects business processes including electronic transactions, supply chains, decision making and organizational performance. The course addresses basic concepts and tools for understanding and exploring market opportunities and marketing strategies associated with global electronic commerce. In addition, some of the major issues associated with e-commerce-security, privacy, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities will be explored. Writing emphasis course.

INSY 3100 ADVANCED OBJECT-ORIENTED PROGRAMING (4)

Prerequisites: INSY 2840/284

The course introduces the principles of software engineering, structured program design, modular programming, and object-oriented program design. Students will learn the concepts of object-oriented programming, user interface programming, classes, inheritance, and polymorphism.

INSY 3120 DECISION SUPPORT AND EXPERT SYSTEMS (3)

Prerequisites: INSY 3280/328 or equivalent

This course is about the manager's responsibilities for problem solving and decision making, and about those areas in which computers can be used as tools to gain insight needed to support selection of decision alternatives. A decision support and/or expert system follows a reasoned, logical pattern based on criteria specified by an expert, and includes facts, rules, ad hoc procedures, and the manipulation of quantified uncertainty factors. The system supports the assembly and organization of data, both on its own, and with the assistance of the user, and returns to the user added information and judgments useful in the development of analysis and decisions.

INSY 3200 BUSINESS PROBLEM SOLVING (3)
Prerequisites: INSY 1370/137
An applied, case study-oriented course that helps business students apply MS Excel spreadsheet and the MS Access database management system to effectively test and analyze business cases and solve real-word business problems. It challenges students to use critical thinking analysis to produce an effective solution to real-world problems.

INSY 3250 BUSINESS WEBSITE DEVELOPMENT (3)
Prerequisites: INSY 2900 or consent of department
Fundamentals of developing effective websites including graphics and animation using web development tools such as: HTML, XHTML, CSS and JavaScript. Students will develop websites with a focus on information architecture and usability standards for the business sector.

INSY 3270 MANAGEMENT INFORMATION SYSTEMS (3)
Prerequisites: INSY 1370/137 or consent of department
This course addresses the need for managers to understand and manage the technology necessary for competitive advantage in an increasingly dynamic business environment. Topics include the identification of technological competencies, the evaluation of technology, the design and management of systems technological innovation and the integration of technology into the organization. Case studies will emphasize analysis of current business issues using technology such as spreadsheets and presentation graphics. Writing emphasis course.

INSY 3280 DATABASE SYSTEMS (3)
Prerequisites: INSY1370/137 or consent of department
This Is an introductory course in data base management systems. It covers different topics included: Relational, Network and Hierarchical Models, E-R Model, and Normalization. The emphasis is on the relational database model. The class also gives the students the knowledge of SQL (Structured Query Language). SQL is the most commonly used database language in industry today. Students will practice signing and implementing enterprise database applications using Database Management System packages.

INSY 4200 PROJECT MANAGEMENT PRINCIPLES & PRACTICES (3)
Prerequisite(s): INSY3200 or consent of department
The course covers key components of project management including project integration, project scope management, project time and cost management, quality management, human resource considerations, communications, risk management, and procurement management. Upon successful completion of this course, students will be prepared to set for the Certified Association Project Management (CAPM) exam and those who meet PMI exam requirements (see www.pmi.org) will be prepared to take the PMP exam as well.

INSY 4250 MOBILE APPLICATION DEVELOPMENT (3)
Prerequisites: INSY 2840/284
The main objective of this course is to provide students with the tools and knowledge necessary to create applications that can run on mobile devices. Topics will include memory management; use interface design; user interface building; input methods; data handling; network techniques; Mobile detection, geo-location and maps, Widgets and offline web apps. Students are expected to work on a project that produces a professional-quality mobile application.

4300 SYSTEMS ANALYSIS AND DESIGN (3)
Prerequisites: INSY 3280/328 or consent of department
It is a comprehensive study of the analysis, design, and implementation stages of the System Development Life Cycle (SDLC). The emphasis is on planning tolls, information gathering techniques, data flow diagrams, E-R diagrams, project management tools: GANTT and PERT charts, and data dictionaries. Object-Oriented Analysis and Design (UML) will be covered also. Students will participate in groups to plan and design a total computer system.

INSY 4400 INFORMATION CENTER FUNCTIONS (3)
Prerequisites: INSY 1360/136, INSY 3270/327 and INSY 3280/328 or equivalent
This course defines an information center as a specialized facility that makes available software tools and associated hardware from which users can select in order to build their own systems. This course then deals with an alternative to the traditional systems development life cycle for building systems. Here the emphasis is on how the prospective users can design and build their own systems by using the resources of the information center. These resources include the services of qualified systems professionals in addition to software and hardware support. Students learn how to use knowledge programming and fourth generation languages to design custom software to meet hypothetical and real-life requirement sand needs.

INSY 4450 DATA COMMUNICATION AND COMPUTER NETWORKS (3)
Prerequisites: INSY 3270/327 or consent of department
This course introduces the students to computer networks and data communications in business. The course covers computer networking terminology, history, connectivity, and topology. Participants gain essential knowledge in the principles of computer networking, associated computer services, and network planning and design. The benefits, costs, and security issues related to using computer networks are discussed, along with network design issues, and methodologies for network applications. The course additionally covers telecommunications infrastructure required to support integrated voice, data, and video.

INSY 4470 CLIENT/SERVER DEVELOPMENT (4)
Prerequisites: INSY 3280/328 and INSY 3250
This course introduces the fundamental concepts of client/server development, provides a comprehensive introduction to the SQL language and covers issues involving designing, implementing, and testing client/server systems, n-tier client/server database application development, and web-based database applications. Students will have hands-on experience in developing web-based applications integrated with database technology.

INSY 4480 ETHICS IN IT (3)
Prerequisites: INSY1370/137 or consent of department
Ethics in Information Technology is designed to educate existing and future business managers and IT professionals on the tremendous impact ethical issues play in the use of information technology in the modern business world. The topics covered in this course are extremely current and relevant to anyone preparing to enter the field of IT. The course will give students the foundation they need to make appropriate decisions when faced with difficult situations and make a positive impact in the field of information technology.

INSY 4900 SPECIAL TOPICS IN INFORMATION SYSTEMS (1 - 3)
Prerequisite: INSY1370/137 or consent of the instructor.
An exploration of special topics or current issues in the field of information systems. Offered irregularly. May be repeated for a maximum of six credit hours under different topics.

INSY 4990 INDEPENDENT STUDY AND SPECIAL PROBLEMS (3)
Prerequisite: Senior standing and consent of the department.
Designed for independent research and study of special information systems problems. A comprehensive research paper is required. Maximum of two enrollments, not in the same term, for a total of six credit hours.