MIS 1305 Intro to Computer Applications
An introduction to the use of computer applications and the Internet for problem-solving. This course will emphasize hands-on work with personal productivity applications (e.g., word processing, spreadsheet, presentation software).
TCCN: COSC 1301

MIS 2350 Introduction to Programming
This course introduces students to Object-Oriented Programming. Major topics include language syntax, programming structures, using a development environment, using intrinsic components, screen and report design.

MIS 3310 Management Information Systems
Theory, capabilities, applications, benefits, liabilities and economics of business computer information systems. Using the computer to solve business problems. Management information systems and computer-based decision support is emphasized. The standard support application packages will be used. Written and/or oral presentations are required. Prerequisites: Junior standing.

MIS 3320 Information System Analysis
The objective of this course is to introduce students to the processes, principles, guidelines, tools and techniques for systems analysis. Students will learn how to determine organizational needs, to understand and document business and information processes, and to find and organize the information that must be collected and stored by the organization. The course presents various modeling techniques used for this purpose, in particular, methods for modeling the way the organization operates, its business processes, the data used in business processes, and the information systems processing operations. Upon completion of this course, the student will be able to analyze and document the business functions and information processes activities of the firm using the appropriate tools necessary to effectively communicate systemic needs to all stakeholders. Prerequisites: MIS 2350 and MIS 3310 or concurrent enrollment in MIS 3310.

MIS 3330 Database Design Implementation
Analysis of file organization techniques and data structures. Consideration of the management of data as a resource. Design of data models and data bases in business organizations. Use of data base management systems and user-oriented data manipulation languages, such as SQL. Prerequisites: Junior standing.

MIS 3340 Data Comm. & Networking
The purpose of this course is to develop an understanding of the differences between centralized, decentralized, and distributed data processing systems; their relationships with the business enterprise, data communications and the parameters affecting the implementation of the system. Background for analysis, design, selection and evaluation of hardware, software and support required for a distributed data processing environment will be gained. Prerequisites: Junior standing.

MIS 3360 Business Data Visualization
This course provides an overview of data visualization and analysis methods relevant to current business decision making. Students will develop skills through all phases of the analysis and visualization process; determine analysis purpose; retrieve relevant data; analyze the data; and present the data in a method that enhances understanding. Use of current visualization and analysis programs will be emphasized throughout the course. Prerequisites: DS 2310 or permission of instructor.

MIS 4320 Data Mining and Buss Intel
This course will introduce students to various statistical techniques frequently used in analyzing data to generate information useful in business decision-making. Advanced data analytic techniques such as mathematical optimization, data mining, and artificial intelligence models will also be introduced using software-based data analytic tools. Prerequisites: DS 2310 or permission of instructor.

MIS 4360 Social Business Analytics
This course is designed to introduce the fundamental concepts of social information technologies (social IT), to prepare them to analyze massive data generated from social IT, and to help them understand how to leverage the capacities of social IT and the data to create firms’ competitive advantages. This course will introduce students to various statistical techniques frequently used in analyzing data to generate information useful in business decision-making. Advanced data analytic techniques such as mathematical optimization, data mining, and artificial intelligence models will also be introduced using software-based data analytic tools. Prerequisites: DS 2310 or permission of instructor.

MIS 4380 Business Decision Modeling
This course includes fundamental concepts of both statistics and decision theory. This course provides and introduction to generic modeling techniques that can be employed to address the complexity of business decision making. Prerequisites: DS 2310 or permission of instructor.

MIS 4399 Issues in Information Systems
Examines state of the art technology and issues related to the analysis, design, implementation, and control of information systems. Includes a significant project. May be repeated once when the topic changes. Prerequisites: MIS 3310.

MIS 5330 Advanced Programming
An extended introduction to an advanced programming environment utilizing a business oriented programming language. The course will provide instruction in the advanced manipulation of data, and the programming of sophisticated data-intensive applications and file structures. Prerequisites: MIS 2350 or equivalent or permission of instructor

MIS 5340 Networks&Distributed Systems
This course is designed to introduce the fundamental concepts of data/voice communication for both a technical and related managerial issues in an organizational environment. The course addresses network implementation and administration, telecommunications, client/server technologies, wireless technologies, standards and protocols, network management, strategic business applications and the managerial implications of globally distributed communications and information systems.
MIS 5350 Information System Analysis
The objective of this course is to provide an integrated perspective of problem solving utilizing information technology in today's complex business environment, with a concentration on the processes, principles, guidelines, tools and techniques for systems analysis. Topics include information requirements identification, systems theory, systems modeling, project planning, documentation, current and proposed systems specification, and introduction to data modeling. Communication skills will be honed, and formal presentations are required.

MIS 5360 Management of Info Systems
Issues relating to the administration of computer-based systems including planning and development; control and evaluation; organization and personnel. Societal and technological issues are also addressed from both a domestic and global managerial perspective.

MIS 5365 Business Info Security
Basic notions of confidentiality, integrity, authentication models, protection models, security kernels, audit, intrusion detection, operational security issues, physical security issues, security system life cycle management, personnel security, policy formation and enforcement, trust modeling, risks and vulnerabilities assessment, basic issues of law and privacy, trade secrets, employee covenants, copyright, database protection, software and hardware validation, verification and certification.
Prerequisites: MIS 5360 or concurrent enrollment.

MIS 5370 Database Management & Design
The objectives and methods of database management are covered. Topics include objectives of data and database management, data models, elementary database design, data dictionaries, data integrity, security and privacy. Actual use of a commercial database management system is required.
Prerequisites: MIS 5330 or concurrent enrollment.

MIS 5375 Data Mining&Bus Analytics
This course describes the set of techniques and tools for the transformation of an organization's raw data into meaningful and useful information for business decision-making. Major topics include data warehousing, data mining, data analytics, and statistical modeling.
Prerequisites: DS 2310 or equivalent.

MIS 5380 Info Systems Design&Implemen
This course is a continuation of MIS 5350. The emphasis is on the later phases of the system development life cycle (SDLC), with a focus on the design and implementation of information systems within organizations. Topics include, but are not limited to: comparing and contrasting a variety of approaches to system design; examining alternative approaches to the implementation of information systems, doing system integration and interface management; exposure to the development and documentation standards; testing and managing the conversion and hand-over of the system. Upon completion of the course, the student will be able to design, prototype, document and implement a moderately complex IS.
Prerequisites: MIS 5350 or concurrent enrollment and permission of instructor.

MIS 5390 Project Design & Management
This course includes a practical approach to business problem solving through the actual implementation of a significant software product. It includes study of project management tools and techniques necessary to plan, staff, organize and control the development of computer-based information systems.
Prerequisites: Must be taken during final semester prior to graduation.

MIS 5399 Special Issues in Info Systems
The course examines timely topics of concern to the MIS developer and systems manager. May be repeated once when topic changes.

MIS 6310 Seminar in Global Systems Mgt
Managing in an information-intensive environment requires skills and knowledge of business and systems change. This course teaches strategies for aligning a firm's information systems with rapidly changing business environments, taking both the perspective of organizational and technical issues. In addition, this course has a major emphasis on IT leadership and the skills necessary to be a successful leader in information-intensive, global environments. This course focuses on the interdependence between organizations, people and information technology by examining several key areas, from both a global and an organizational perspective, including: Managing Business Process Redesign and Software Development Managing Projects and Changes Information Technology and Leadership Managing Enterprise Information Systems
Prerequisites: Consent of the instructor and the Graduate Advisor.

MIS 6320 Doc Seminar: Soc&Org Iss in IS
The objective of this course is to provide the student with an understanding of how information systems impact an organization and society, in other words, important organizational, social, legal and ethical issues raised by information systems. The student will be able to critically examine the issues/impact and will be exposed to research trends within these areas, such as themes, methods (methodologies used) and will be able to formulate pertinent research questions. The student will be exposed to the following topics (but not limited to): IT and social controversies; IT and social change; IT and organizational change; economic, cultural and organizational dimensions of IT; ethical perspectives and professional responsibilities for the information technology field, etc.
Prerequisites: Consent of the instructor and the Graduate Advisor.

MIS 6330 Doc Sem: Hum-Comp Interaction
The objective of this course is to provide doctoral students with an understanding of key research issues in connection with the interface between human beings and computers, in both individual and group work. This course focuses on key human-computer interface design and related issues, such as individual reaction to interfaces of different levels of naturalness, online learning environments in business contexts, electronic communication media design, ft. between electronic collaboration tools and group tasks, and knowledge and information sharing workspaces. The student will be exposed to several key topics, including, but not limited to, human-computer interaction (HCI) concepts and issues; HCI design; typical computer applications and respective interfaces; e-collaboration; emerging applications of innovative human-computer interfaces, etc.
Prerequisites: Consent of the instructor and the Graduate Advisor.
MIS 6340 Doc Seminar in Emerging Tech
The objective of this course is to provide the student with an understanding of emerging technologies that are expected to have wide impact on the future of computing. The student will be able to critically examine the issues/impact and will be exposed to research trends within these areas, such as themes methods (methodologies used) and will be able to formulate pertinent research questions. The student will be exposed to the following topics (but not limited to): agile development methods; biometrics; DNA computing; grid computing; intrusion detection; security; location-based technologies; management service providers; open source software; peer to peer computing; web services; wireless communications; XML, etc.
Prerequisites: Consent of the instructor and the Graduate Advisor.