Information Systems (IS) - Online

IS 500 Collaboration, Teamwork, and Ethics 3 Cr.
This seminar examines the frameworks of ethics, from an individual to an organizational perspective. All coursework is designed to create opportunities for ethical outcomes in all personal, professional, and organizational endeavors. Building effective teams require the selection of members with a high level of both technical and interpersonal skills. Once created, team leaders and members need to shape and monitor team processes, starting with the team launch. Students will develop and apply skills and knowledge related to performing as effective team leaders and collaborators and understanding the role of culture in teams. 3 credits. Co-req: IS50I.

IS 501 Statistical Concepts 3 Cr.
Examines the basic statistical techniques needed for business decision making in areas such as operations management, quality improvement, marketing research, finance, and general management. The course examines collection and presentation of data, frequency distributions, basic probability, statistical inference, and regression. Students use statistical software for data presentation and analysis. 3 credits. Co-req: IS500.

IS 502 Data Analytics Methods 3 Cr.
This course prepares students to gather, describe, and analyze data, and use advanced statistical tools to make decisions on operations, risk management, finance, marketing, etc. Analysis is done targeting economic and financial decisions in complex systems that involve multiple partners. Topics include probability, statistics, hypothesis testing, regression, clustering, decision trees, and forecasting. This course uses statistical software called R. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 503 Information System Analysis and Design 3 Cr.
This course examines the specifications of the information systems development process. The course covers fundamental topics on two main stages of information systems development life cycle: analysis, and design. Students will become familiar with techniques to investigate, collect, organize, and structure requirements for an information system, as well as understanding how to design different components of the information system to satisfy the requirements. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 504 Executive Leadership for Information Systems 3 Cr.
This course examines leadership principles and strategies to lead the digital transformation of organizations, manage information technology projects, implement process improvements, and execute enterprise system and integration across an organization. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 505 Governance, Risks, & Controls 3 Cr.
This course examines the principles of information systems audit, IT audit tools, audit procedures to help in the detection and prevention of security breaches, and fraud. Examined also are solutions that can be used to prevent information loss or costly business interruptions, the role of information technology governance in business organizations, reporting requirements, and industry standards for IT Governance. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 510 Introduction to Business Intelligence 3 Cr.
This course focuses on business intelligence—an information technology approach to data collection and data analysis—to support a wide variety of management tasks, from performance evaluation to trend spotting and policymaking. Students learn analytical components and technologies used to create dashboards and scorecards, data/text/Web mining methods for trend and sentiment analysis, and artificial intelligence techniques used to develop intelligent systems for decision support. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 511 Enterprise Data Management 3 Cr.
This course examines the “big picture” of enterprise data systems and sources, taking a holistic approach to knowledge management within organizations. This course will introduce enterprise and management-level information systems that support business processes including enterprise resource planning (ERP), decision support systems (DSS), supply chain management (SCM), knowledge management systems (KMS), customer relationship management (CRM), and human resources information systems (HRIS). COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 512 Data Visualization 3 Cr.
This course examines techniques and algorithms for creating effective visualizations based on principles from graphic design, visual art, perceptual psychology, and cognitive science. Students will learn to better understand their data, present clear evidence of their findings, and tell engaging data stories through data graphics. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 520 Predictive Analytical Models 3 Cr.
This course examines predictive analytics, which is of importance for business because it helps decision makers evaluate possible (e.g., revenues, profits, market share, the probability of making a sale, the probability of losing a client, etc.) based on other historical data predictors (e.g., marketing expenditures, quality assurance investments, sales force size, etc.). Students will be introduced to predictive modeling methods, approaches and tools. Students develop skills in predictive analytics that will allow them to: (1) develop and use advanced predictive analytics methods; (2) develop expertise in the use of popular tools and software for predictive analytics; (3) learn how to develop predictive analytics questions, identify and select the most appropriate predictive analytics methods and tools, and apply these methods to answer the respective questions and presenting data-driven solutions. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 521 Big Data Processing and Cloud Services 3 Cr.
This course examines two important, and sometimes interrelated, emerging data management technologies: cloud computing and big data. Students will analyze the reasons why cloud computing provides an attractive alternative to an on-site data center and the technical and economic impacts of migrating to the cloud. They will also gain an appreciation of the challenges of managing vast quantities of structured and unstructured big data, and how organizations are trying to leverage big data stores via analytics for strategic decision-making. Students will conduct research into current and proposed solutions for both of these information technologies. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 522 Business Decision Models 3 Cr.
This course examines business decision models and applies analytical tools that are used to make optimal business decisions. The topics covered in this course include decision analysis, linear programming, waiting line models, and project scheduling. There is a strong emphasis on understanding business problems and how model building will assist the decision maker in making better decisions. Students will practice building, using, and modifying business analysis models. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 570 Information Systems Capstone 3 Cr.
This capstone course engages students in a collaborative team approach to address the problem of a corporate client. Teams of students (2 to 4 students) work together for one semester to address a problem presented by a corporate client. The teams interview clients and potential systems users, conduct market research, and translate client needs into a requirements document. COURSE UNDER CONSTRUCTION; AWAITING APPROVAL BY UNIVERSITY CURRICULUM COMMITTEE.

IS 595 Residency 0 Cr.