INFORMATION SYSTEMS (IS)

IS 0--. IS LOWER DIVISION. (1-10 Credits)
Lower Level Coursework in Information Systems
Level: Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

IS V--. INFO SYSTEMS WITH VALIDATION. (3 Credits)
Level: Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

IS 1--. IS UPPER DIVISION. (1-10 Credits)
Upper Level Coursework in Information Systems
Level: Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

IS 2--. IS-GRAD ELECT. (1-10 Credits)
Graduate Level Coursework in Information Systems
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Transfer
Schedule type(s): Lecture
Area(s) of Inquiry: None

IS 044. MICROSOFT OFFICE TOOLS FOR BUSINESS ANALYSIS. (2 Credits)
Microsoft Office Tools for Business Analysis. Students will become proficient in the use of software for communication and presentation of text and data using Microsoft Office Suite Tools. This course explores the use of technology and application software for solving business problems, both analytic and organizational in nature. The course uses the most current Microsoft Office application suite, including Word, Excel and PowerPoint. Topics include the use of financial, logical, and time functions in creating worksheets and the use of Pivot tables and charts in analyzing and presenting data. Topics also include how to use technology reliably and safely to avoid data loss and to avoid potential security compromises with an emphasis on ethical practices with regard to data and privacy issues. With all topics, there will be an emphasis on problem solving where the tools are used to create desired solutions. Prereq.: MATH 017 or equivalent college algebra course, knowledge of basic software tools including word processing, email, Internet browsers, and presentation software.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): MATH 017 or MATH 020 or MATH 028 (may be taken concurrently) or MATH 050 (may be taken concurrently) or MATH 070 (may be taken concurrently) or MATH 100 (may be taken concurrently)
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 075. INFORMATION TECHNOLOGY AND BUSINESS. (3 Credits)
Information systems are an integral part of all business activities and careers. This course introduces students to contemporary information systems and demonstrates how these systems are used throughout global organizations. The focus of this course is on the key components of information systems - people, software, hardware, data, and communication technologies, and how these components can be integrated and managed to create competitive advantage. Through the knowledge of how IS provides a competitive advantage, students will gain an understanding of how information is used in organizations and how IT enables improvement in quality, speed, and agility.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 083. INFORMATION TECHNOLOGY LAW AND ETHICS. (3 Credits)
This course surveys the laws and ethical issues that impact information technology professionals. Topics include legal and ethical perspectives on data collection and management, information dissemination, cybersecurity, online privacy and freedom of expression, digital intellectual property management, software development, software development, and social networking use. The future of information technology and its predicted impacts are also discussed. Prereq.: Sophomore Standing
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Enrollment limited to students with a classification of Junior, Sophomore or Senior.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Information Literacy

IS 084. DATA MANAGEMENT FOR BUSINESS ANALYSIS. (2-3 Credits)
Students will learn about data formats and the organizational data life cycle that supports data analytics and knowledge management. Database management tools will be used to develop solutions to solve business problems. Topics include table creation and relationships, data access and queries, forms, and reports. Data-related ethical and legal issues will also be discussed. Prereq.: IS 044
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 107. PROGRAMMING AND APPLICATION DEVELOPMENT. (3 Credits)
An introduction to Visual Basic programming. The course emphasizes the use of the Visual Basic programming language to develop graphical user interfaces for client/server application in a networked information systems environment. Topics covered include structured programming techniques, visual (event-driven) programming for developing Windows application, sequential file processing, and an introduction to database programming. Prereq.: IS 044 or CS 065 or any other three (3) hour programming course.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044 or CS 065
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 114. ADVANCED INFORMATION TECHNOLOGY APPLICATIONS FOR BUSINESS. (3 Credits)
This course focuses on advanced applications of Microsoft Excel, Microsoft Access, and Visual Basic Applications (VBA). Emphasis is on integration of advanced data analysis tools and techniques with reporting and presentation tools for solving business problems and presenting results. Prereq.: IS 044 or equivalent.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 145. WEB SITE TECHNOLOGY. (3 Credits)
A review of the Hypertext Markup Language (HTML) and Cascading Stylesheets (CSS) and a comprehensive introduction to the JavaScript programming language. Emphasis is on business content presentation and data processing. Prereq.: IS 044 or CS 065
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044 or CS 065
Corequisite(s): None
Restrictions:
Students with a classification of Freshman or Sophomore may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 150. NETWORK MANAGEMENT. (3 Credits)
A study of the modern networking concepts and terminology, network protocols and architectures, and distributed applications within modern systems. The Internet and its applications, its security issues, and management issues are emphasized. Prereq.: IS 044 or CS 065.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044 or CS 065
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 160. DATABASE MANAGEMENT. (3 Credits)
A study of database concepts and technologies used in managing and using data within modern organizations: defining data needs; using modern database tools; understanding database design; and creating applications. Prereq.: IS 044 or CS 065.
Level: Graduate, Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): IS 044 or CS 065
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 161. INFORMATION SYSTEMS ANALYSIS AND DESIGN. (3 Credits)
Course provides an introduction to strategies and technologies for
analyzing business processes and systems in an organization. Course
topics include overview of systems development methodologies and
project management, systems planning (project selection and initiation
and requirements discovery), systems analysis (Process and logic
modeling), systems design (prototyping, rapid application development,
and agile development), and systems implementation (quality assurance
and maintenance). Prereq.: IS 080 or IS 107 or CS 066.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): (IS 080 or CS 066 or IS 107)
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 164. PROJECT MANAGEMENT. (3 Credits)
The role of projects in organizations is becoming increasingly important.
Projects are the major mechanism for implementing and achieving
strategic goals of the organization. The purpose of this course is to
provide students an understanding of project management and the skills,
tools, and techniques to work on a project successfully. This course
covers fundamental concepts and skills to propose, initiate, plan, execute,
monitor, control, and close projects. Pre-req.: Sophomore
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Students with a classification of Freshman may **not** enroll.

Graduate or Law level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 172. EXPLORING THE SILICON PRAIRIE. (3 Credits)
This class is designed for students with an interest in technology and its
various applications not only in the business realm, but also in society
at large. This course will explore the history of technology and focus
on how these powerful systems have fundamentally reshaped modern
organizations along with our society. Particular emphasis will be placed
on the ""Silicon Prairie"" we live in, as well as the global world. Topics
of study will range from the technologies, methods, and practices of
developing new innovations to how this knowledge and these skills are
applied to re-engineer business processes.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: Historical Foundations

IS 194. ELECTRONIC COMMERCE. (3 Credits)
A study of internet-based electronic commerce. Topics include the
information technologies underlying the electronic marketplace, and
the impact of e-commerce on content, retail, and service industries,
organizational strategy, and society. Prereq.: MGMT 110 and MKTG 101.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): MGMT 110 and MKTG 101
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 198. CURRENT INFORMATION SYSTEM ISSUES. (1-6 Credits)
Timely or innovative course in information systems. Not scheduled
regularly.
Level: Graduate, Non Degree Coursework, Professional Health Care,
Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 199. INDEPENDENT STUDY. (1-3 Credits)
Individual advanced study and research under faculty supervision.
Level: Non Degree Coursework, Professional Health Care, Undergraduate
Prerequisite(s): None
Corequisite(s): None
Restrictions: None
Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

IS 210. BUSINESS ANALYTICS, TEAMS, AND PROJECTS. (3 Credits)
In this course, students will be introduced to business analytics
concepts. Specifically, students will explore all aspects of business
analytics projects focusing on how businesses use data to solve
business problems. Class topics will address data including concepts
of team formation, problem analysis, requirements gathering, and other
project management concepts.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 220. INFORMATION TECHNOLOGY LEGAL AND ETHICAL ISSUES. (3 Credits)
This course provides an overview of ethical and legal issues associated with business information technology usage, data collection, data sharing, and data-driven decision making. Topics include ethical and legal perspectives on privacy and information rights, organizational computer usage policies, cybercrime, and intellectual property.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 230. INDEPENDENT STUDY. (1-3 Credits)
Advanced individual study or research under the supervision of the faculty.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Web Instructed
Area(s) of Inquiry: None

IS 231. DATA MANAGEMENT AND VISUAL ANALYTICS. (3 Credits)
A study of database concepts and technologies used in managing and using data within modern organizations: defining data needs; using modern database tools; understanding database design; and creating applications. Class time is also devoted to the topic of visualization and visual analytics tools. Prereq: One of the following - IS 210, MDAL 210, or HSCI 201
Level: Graduate
Prerequisite(s): IS 210 or HSCI 201 or MDAL 210
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 280. CYBERSECURITY MANAGEMENT. (3 Credits)
Leading an organization in today's environment requires nuanced decision-making regarding vulnerabilities, threats, risks and attacks. This course provides a foundation for leaders in cybersecurity management including principles and policies for data protection as well as concepts of privacy laws (HIPPA, GDPR, etc.), IT governance, risk management, and the human aspects of cybersecurity.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 281. CYBER ATTACK PREV & MITIGATION. (3 Credits)
In order to mitigate risk to an organization and apply effective countermeasures, it is imperative to understand the methodologies of cyber-attacks. In this course, students will explore the theories and practices related to the prevention of cyber-attacks as well as the theories and practices related to the recovery from attack. Students will design, apply, and analyze cyber-attack prevention and mitigation solutions through various case studies.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 282. PYTHON PROG FOR DATA ANALYTICS. (3 Credits)
This course is an introduction to computer programming emphasizing modern Python tools for data analysis and modeling. Students will learn to use the program control and data structures necessary to perform descriptive and predictive analytics tasks, utilizing libraries for visualization, statistics, and machine learning. No prior programming experience is required.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 284. ELECTRONIC COMMERCE STRATEGY. (3 Credits)
A survey of the impact of electronic commerce on organizational strategy using class lecture/discussion and case studies. Topics include theoretical perspectives on the impact of electronic commerce on individuals, organizations and society; Internet and Web technology concepts and capabilities; transformation of content and service industries; and the impact of the internet on order fulfillment subprocesses (retailing, auctions, payments and distribution). Consent of Assistant Dean, Graduate Programs, College of Business and Public Administration.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Enrollment limited to students in the Zimpleman College of Business college.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None

IS 298. CURRENT ISSUES IN INFORMATION SYSTEMS. (3 Credits)
Special topics seminar. Topics vary.
Level: Graduate
Prerequisite(s): None
Corequisite(s): None
Restrictions:
Undergraduate level students may **not** enroll.

Primary grade mode: Standard Letter
Schedule type(s): Independent Study, Lecture, Web Instructed
Area(s) of Inquiry: None