

INFORMATION SYSTEMS (INFO SYS)

INFO SYS 322 – INTRODUCTION TO DATABASES

3 credits.

Introduction to database management systems with a focus on relational databases. Covers designing, creating, populating, managing, and retrieving data from databases. SQL will be used with a focus on querying for business applications and intelligence, data retrieval for summary reports, and data visualization. Offers a brief introduction to non-relational databases for business applications.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2026

Learning Outcomes: 1. Implement data modeling and relationships in relational database management systems.

Audience: Undergraduate

2. Use Create, Read, Update and Delete (CRUD) operations in SQL-like databases.

Audience: Undergraduate

3. Query, create reports and use data visualization for business intelligence.

Audience: Undergraduate

4. Identify how professionals use and interact with databases in the workplace.

Audience: Undergraduate

INFO SYS 352 – DIGITAL STRATEGY

3 credits.

Focus on the economic and technical concepts behind emerging information systems. Industry cases covering platforms, online markets, artificial intelligence, and business analytics. Caters to interests in technology consulting.

Requisites: None

Repeatable for Credit: No

Last Taught: Fall 2025

Learning Outcomes: 1. Recognize emerging technologies in information systems and their underlying economic concepts.

Audience: Undergraduate

2. Analyze industry examples of corporate strategies to best adopt, implement, maintain and grow investments in digitization.

Audience: Undergraduate

3. Communicate the technical, social, and economic implications of digital technology investment effectively.

Audience: Undergraduate

4. Identify and evaluate reliable information and data sources for advances in digital technologies.

Audience: Undergraduate

INFO SYS 365 – CONTEMPORARY TOPICS

1-3 credits.

Exploration of subject areas possibly to be introduced into the business curriculum.

Requisites: Sophomore standing or declared in undergraduate Business Exchange program

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2026

INFO SYS 371 – TECHNOLOGY OF COMPUTER-BASED BUSINESS SYSTEMS

3 credits.

Focus is on developing applications and business information systems on the web using a variety of programming languages and tools. Emphasis on deployment as well as design concepts.

Requisites: COMP SCI 301 or 220

Repeatable for Credit: No

Last Taught: Spring 2026

Learning Outcomes: 1. Demonstrate principles of professional quality web page development and deployment.

Audience: Undergraduate

2. Apply mechanisms of web page development including front end presentation, access control for an application back-end, and the management of information exchange.

Audience: Undergraduate

3. Articulate how to use computer technologies to link business data and decision needs to web-based system design.

Audience: Undergraduate

INFO SYS 423 – DIGITAL PLATFORM ANALYTICS

3 credits.

An introduction to data analysis procedures covering topics including: data collection, pre-processing, analysis, and presentation. Content covers important data analysis concepts, such as structured and unstructured data. Learn about supervised, unsupervised learning methods and advanced analytics topics, such as text mining, recommendation systems, and algorithm bias.

Requisites: None

Repeatable for Credit: No

Last Taught: Spring 2026

Learning Outcomes: 1. Recognize and apply fundamental data analysis procedures, including data collection, pre-processing, analysis, and presentation.

Audience: Undergraduate

2. Analyze structured and unstructured data in a variety of contexts.

Audience: Undergraduate

3. Develop supervised and unsupervised data mining skills, including linear regression, logistics regression, decision tree, KNN, K-means, and simple text mining techniques.

Audience: Undergraduate

4. Evaluate data analysis frontiers, including recommendation systems, data ethics, privacy, and algorithm bias.

Audience: Undergraduate

INFO SYS 424 – SYSTEMS ANALYSIS AND DESIGN

3 credits.

Applied principles and techniques of information systems development including requirements identification and analysis, process and data modeling, team communication and collaboration, and system testing.

Requisites: INFO SYS 322 (422 prior to Fall 2023) and INFO SYS 371

Repeatable for Credit: No

Last Taught: Spring 2026

Learning Outcomes: 1. Demonstrate how to manage data, model information, and apply appropriate information technology to create effective business solutions

Audience: Undergraduate

2. Demonstrate how to use computer technologies to analyze business problems and processes

Audience: Undergraduate

3. Describe the Systems Development Life Cycle (SDLC) as a comprehensive project management framework for the analysis, design, and implementation of computer-based solutions

Audience: Undergraduate

4. Design and implement computer-based information systems which support business operations, decision-making, and planning

Audience: Undergraduate

5. Develop proficiency in project management and communication skills for the management of information systems

Audience: Undergraduate

INFO SYS/ISYE 722 – COMPUTER-BASED DATA MANAGEMENT

3 credits.

Use, control and administration of centralized and distributed data bases. Topics include the definition, design, creation, revision, interrogation, update, security and integrity of data bases.

Requisites: Graduate/professional standing and INFO SYS 371

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2020

INFO SYS 723 – TEXT ANALYTICS AND BUSINESS APPLICATION

3 credits.

An introduction to text mining and natural language processing for business applications. Provides an overview of text data and steps to make it usable and approaches for making text data useful in descriptive and predictive analytics applications. Topics include representation approaches, topic modeling, and an overview of key applications of natural language processing, such as chatbots and recommender systems.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Spring 2026

Learning Outcomes: 1. Retrieve, assemble, and clean text data for use in analytics applications.

Audience: Graduate

2. Utilize text representation approaches, including the bag of words and Term Frequency - Inverse Document Frequency (TF-IDF), for visualizing text data.

Audience: Graduate

3. Build classification and regression models using features created from text data.

Audience: Graduate

4. Utilize Latent Dirichlet Application (LDA) for topic modeling in the context of a business application.

Audience: Graduate

INFO SYS 765 – CONTEMPORARY TOPICS

1-3 credits.

Exploration of subject areas possibly to be introduced into the business curriculum.

Requisites: Graduate/professional standing or declared in graduate Business Exchange program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

Last Taught: Spring 2026