

NEW TOPIC TITLE

ISYS 573 New Advances in IT in Organizations (3)

Prerequisites: ISYS 350; ISYS 363* or ACCT 307*, with grades of C- or better.*

The rapid adoption of innovative Information Technology (IT) architectures and tools. Topic to be specified in Class Schedule. May be repeated for a total of six units as topics vary. [CSL may be available]

1. Machine Learning for Business

NEW COURSES

CSC 508 Machine Learning and Data Science for Personalized Medicine (3): Regular; CS-02; Spring 2021

Prerequisite: CSC 308.

Exploration of the concepts and tools needed to analyze, interpret, and reason from genomic datasets to help medical professionals better treat their patients. Diseases often affect patients differently depending on their genetic background. In order to make personalized medicine a reality, it is necessary to leverage the data from genomic datasets. Genomic data science applies machine learning and data science to the genome in order to better diagnose and treat patients. (Plus-minus letter grade only)

CSC 509 Data Science and Machine Learning for Medical Image Analysis (3): Regular; CS-02; Spring 2021

Prerequisite: CSC 308.

Exploration of the application of state-of-the-art deep learning models to medical image analysis: the task of identifying objects such as tissue, bone within an image. Discussion of topics central to deep learning-based image analysis, and practical application of these concepts in three hands-on case studies. (Plus-minus letter grade only)

HIST 429 U.S. History: The Recent Past, 1980 to the Present (3): Regular; CS-02; Fall 2021

Prerequisite: Upper-division standing or consent of the instructor.

U.S. history from 1980 - present, focusing on political developments, social and cultural change, and the defining social movements of the recent past. Emphasis on problems of race, class, gender, and sexuality. Examination of political conflict from Jimmy Carter and the post-Watergate crisis to Donald Trump and the conservative politics of backlash; economic and social transformations from the rise of Wal-Mart and mass incarceration to the Great Recession and the crisis of inequality; and social movements from the Nuclear Freeze, ActUp!, and the Moral Majority to Occupy Wall Street, the Tea Party, and Black Lives Matter.

**JOUR 323/SPAN 323 Editing and Translation for Bilingual Spanish Journalism (3):
Cross-list; CS-04; Fall 2021**

Prerequisites: JOUR 300GW and SPAN 301* with grades of C or better or consent of the instructor.*

Theoretical and practical aspects of translation applied to news writing. Exercises in translating Spanish to English and vice-versa. Conducted in both Spanish and English. (ABC/NC grading only)

(This course is offered as JOUR 323 and SPAN 323. Students may not repeat the course under an alternate prefix.)

MATH 895 Data Science Internship (3): Regular; CS-25; Spring 2021

Prerequisites: Consent of the instructor and graduate adviser; and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies. ATC and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

Field experience in Statistical Data Science offered in cooperation with a private, public profit, or non-profit organization that enables students to acquire competencies and experience required for fulfilling professional responsibilities under the supervision of a Statistics faculty member.

MATH 896 Exam Preparation (3): Regular; CS-25; Spring 2021

Prerequisites: Consent of the instructor and graduate adviser; and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies. ATC and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

Preparing students for culminating exams in Probability and Statistics.

MSCI 895 Field Study or Applied Research (3): Regular; CS-36; Fall 2021

Prerequisites: Graduate standing in Interdisciplinary Marine and Estuarine Science; consent of the instructor and chair of student's committee; and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies. ATC and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

Supervised independent and original laboratory or field investigation. Guidelines are available upon advisement through the Interdisciplinary Marine and Estuarine Science graduate coordinator. (CR/NC/RP grading only)