INFORMATICS

The Informatics minor is an interdisciplinary program that prepares you with core computational skill sets and competencies that allow you to solve problems within a chosen discipline or field. The program also builds interdisciplinary problem solving skills that are applicable and advantageous across academia and within industry. The minor’s objectives are anchored around a set of core outcomes, such that students completing the minor will be able to:

- Apply computational thinking to solve problems effectively and implement it using a programming language; apply statistical techniques to assess outcomes of empirical studies or experiments, and set up research designs to evaluate tools, techniques or hypotheses effectively; interact, use and manage data or databases and solve data-centric problems; organize, visualize, and communicate digital data effectively and efficiently; use creative competencies to generate creative solutions; and contribute one’s expertise to the solution of interdisciplinary problems by effectively collaborating and communicating with those from other disciplines.

Academics

CORE COURSES
- CSCE 100 Introduction to Informatics
- CSCE 311 Data Structures and Algorithms for Informatics
- CSCE 493A Interdisciplinary Capstone

Area 1: Computational Thinking and Programming
Select one course:
- CSCE 155A Computer Science I
- CSCE 155E Computer Science I: Systems Engineering Focus
- CSCE 155N Computer Science I: Engineering and Science Focus
- CSCE 155T Computer Science I: Informatics Focus

Area 2: Statistical and Research Design
Select one course:
- STAT 218 Introduction to Statistics
- ECON 215 Statistics
- STAT / MATH 380 Statistics and Applications
- EDPS 459 Statistical Methods
- PSYC 350 Research Methods and Data Analysis
- SOCI 206 Introduction to Social Statistics

Select one course from either Area 3 or Area 4.

Area 3: Data Analysis and Database Techniques
- CSCE 413 Database Systems
- CSCE 471 Introduction to Bioinformatics
- CSCE 474 Introduction to Data Mining
- CSCE 478 Digital Archives and Editions
- ENGL 279 Digital Literary Analysis
- GEOG 412 Introduction to Geographic Information Systems
- JOUR 307 Data Journalism
- NRES 218 Introduction to Geospatial Technologies
- NRES 418 Introduction to Remote Sensing
- STAT 318 Introduction to Statistics II

Area 4: Visualization and Creative Thinking
- CSCE 470 Computer Graphics
- TMFD 121 Visual Communication and Presentation
- AHIS / ANTH / CLAS 406 Visualizing the Ancient City
- ANTH 389 GIS in Archaeology
- ARTP 189H University Honors Seminar
- ARTS 398 Special Topics in Studio Art III
- JOUR 407 Data Visualization
- MUSC 483 Music Technology: Advanced Techniques and Applications

For a complete list of applicable courses see minor advisor.