Informatics Certificate & Concentration

(2016 Catalog Year and Beyond)

The certificate (or BIS concentration) in informatics trains students to use computer technology to gather, synthesize, store, visualize and interpret information. These skills are critical to a broad range of disciplines. This certificate provides students with an understanding of the capabilities and technologies of informatics as it applies to domain specific problems in their field of study.

Core Curriculum

CPI 101 (3) Introduction to Informatics (offered every semester)

CPI 200 (3) Mathematical Foundations of Informatics (offered Spring only)

CPI 220 (3) Applied Data Structures and Algorithms (offered Fall only)
OR
***CSE 310 (3)** Data Structures and Algorithms

IEE 380 (3) Probability and Statistics for Engineering Problem Solving
OR
STP 420 (3) Introductory Applied Statistics

CPI 350 (3) Evaluation of Informatics Systems (offered Spring only)

Prerequisite Courses

MAT 242 (3) Elementary Linear Algebra

MAT 210 (3) Brief Calculus OR **MAT 265 (3)** Calculus I

MAT 243 (3) Discrete Math

CSE 110 Principles of Programming Java

CSE 205 (3) Object-Orientated Programming

Prerequisites →

*CSE 310 requires CSE 220 or 240 and MAT 243

Statistics Course (Select one)* Required for CPI 350

IEE 380(3): Prob and Stats for Engineering Problem Solving (requires MAT 266)
OR
STP 420(3): Introductory Applied Statistics (requires MAT 210 or 265)

Elective Courses (Select two)

AME 494(3): Topic: Programming for the Internet of Things
BIO 355(3): Introduction to Computational Molecular Biology
CIS 300(3): Web Design and Development
CPI 310(3): Web-Based Information Management Systems (offered fall only)
CPI 360(3): Decision Making and Problem Solving (offered fall only)
CPI 441(3): Gaming Capstone (offered spring only)
ENG 374(3): Technical Editing
FSE 301(3): Entrepreneurship and Value Creation
GIT 335(3) Computer Systems Technology
SOC 334(3): Technology and Society
STS 306(3): Social Effects of Science and Technology

Additional elective course options can be found here.

*Please note: Elective courses may have additional prerequisites