SOFTWARE DEVELOPMENT

The software development minor prepares you with skills to meet the growing demand for familiarity and competency with software development. The minor is designed to enable students from a diverse set of majors and backgrounds to participate and provide a strong foundation in software development to allow them to apply computing throughout their career.

The minor’s objectives are anchored around a set of core outcomes, such that students completing the minor will be able to:

- Apply sound software development principles and methodologies to create software systems that solve real-world problems in various disciplines.
- Interact, use and manage large data sets and solve data-centric problems, organize, visualize, and communicate digital data effectively; and use creative competencies to generate creative solutions.
- Understand the roles of various stake-holders in software development projects including domain experts, project managers, customers, and developers.
- Contribute one’s expertise to the solution problems by effectively collaborating and communicating with other stake-holders in software development projects.

Academics

Select 15 hours:

- CSCE 120 Learning to Code
- CSCE 220 Software Development for Smart-Mobile Systems
- CSCE 320 Data Analysis
- CSCE 311 Data Structures and Algorithms for Informatics or CSCE 464 Internet Systems and Programming
- CSCE 493 Innovation Lab Project

For a complete list of applicable courses see minor advisor.

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STATISTICS

A minor in statistics will acquaint you with the science of data collection, classification, analysis and interpretation. Statistics has evolved into a core discipline for a well-rounded liberal arts education, and is of central importance to nearly all of the biological, physical and social sciences.

Career opportunities for statisticians with masters and doctoral degrees abound in industry, government and education. Employers include pharmaceutical, health and medical organizations, quality improvement in manufacturing and service, marketing and opinion research, credit and security risk analysis, agribusiness, various governmental agencies including Environmental Protection, Food and Drug Administration, Departments of Census, Energy, Agriculture, and Homeland Security, and emerging fields ranging from bioinformatics to statistical applications in sports.

Academics

Students choose between two different tracks:

**TRACK 1**
- STAT 462 Introduction to Mathematical Statistics I: Distribution Theory
- STAT 463 Introduction to Mathematical Statistics II: Statistical Inference

*Select at least six hours of the following:*
- STAT 318 Introduction to Statistics II
- STAT 380 Statistics and Applications
- STAT 412 Introduction to Experimental Design
- STAT 414 Introduction to Survey Sampling
- STAT 450 Introduction to Regression Analysis
- STAT 494 Topics in Statistics and Probability
- STAT 496 Independent Study

**TRACK 2**
- STAT 218 Introduction to Statistics
- STAT 318 Introduction to Statistics II
*Select at least nine hours of the following:*
- STAT 412 Introduction to Experimental Design
- STAT 414 Introduction to Survey Sampling
- STAT 450 Introduction to Regression Analysis
- STAT 462 Introduction to Mathematical Statistics I: Distribution Theory
- STAT 463 Introduction to Mathematical Statistics II: Statistical Inference
- STAT 494 Topics in Statistics and Probability
- STAT 496 Independent Study

*For a complete list of applicable courses see minor advisor.*