

MAJOR IN COMPUTER SCIENCE, SOFTWARE ENGINEERING CONCENTRATION

Software engineering involves designing, implementing, and maintaining computer programs. Developing modern software systems requires more than programming skills and core computer science concepts. It requires software engineering skills, which are in high demand in the software industry.

The Software Engineering concentration focuses on the concepts, techniques, and tools necessary for software analysis, design, testing, maintenance, and teamwork. Courses will include hands-on work with the software engineering tools used in industry.

This concentration combines a rigorous computer science degree with courses in software design, software testing, project management, and system analysis and design.

Learning Objectives

Upon successfully completing this program, students will be able to:

1. Work effectively in teams to develop computational solutions to complex problems.
2. Communicate technical ideas effectively in writing and verbally.
3. Confidently pursue graduate studies or professional employment in software engineering and computer science.

Potential Occupations

In addition to the career opportunities open to all computer science graduates, the software engineering concentration opens career paths that include:

Software developer, software architect, full-stack developer, software project manager, database programmer, computer systems analyst, web developer, computer and information systems manager, UX designer, cloud engineer, and mobile application developer.