



## The School of Science

### BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

During the past several years, the demand for highly skilled software professionals has increased dramatically and, as technology becomes even more pervasive in industry, the need for professionals with a solid grounding in software engineering is expected to continue to rise. Monmouth University is proud to offer its Bachelor of Science in Software Engineering (BSSE) program, which prepares students for success in this rapidly expanding field.

Engineering is the development of solutions to practical problems within economical, social, and technical constraints under conditions of uncertainty. Software engineering is the application of a systematic, disciplined, quantitative approach to the development, operation, and maintenance of software products and systems—that is, the application of engineering techniques to the development and use of software.

Monmouth University's undergraduate program in software engineering is one of the first undergraduate degree programs in the United States to offer an education in this new and rapidly growing field. Monmouth's curriculum focuses on the principles of engineering that every engineer must know and provides a solid background in arts and sciences. Monmouth University's educational approach integrates the humanities, computer science, applied mathematics, physical science, engineering, and management into a strong practical undergraduate software engineering education.

#### A Leader in Software Engineering

Monmouth University is recognized in the industry as one of the first educational institutions to acknowledge the strategic importance of software engineering. In 1986, the University developed one of the nation's first graduate programs dedicated to the discipline. In 1995, Monmouth created the first software engineering department in the United States, and it is currently one of only nineteen universities in the United States with an ABET accredited bachelor's degree program in software engineering.

Monmouth University's BSSE program prepares students to become engineering professionals who can exert leadership in the workplace from their first day on the job after graduation, or who can successfully advance their skills in graduate school. Students gain real experience by participating in general research projects, under the supervision of faculty, and delivering products to real customers.

The Department of Computer Science and Software Engineering in Monmouth's School of Science is dedicated to the use of engineering methods in the design and development of products and systems in which software is a major component.

The educational objectives of the BSSE program are to prepare graduates to do the following things within the first few years of completing the program:

1. Become members of organizations that develop or use software and/or enter graduate school.
2. Participate in teams that are responsible for the specification, design, construction, testing, deployment, maintenance, or use of software systems.
3. Develop experience in additional areas of professional specialty that, when combined with their undergraduate education, will continue the path toward lifelong learning.
4. Use their engineering, communications, interpersonal, and business skills to further their position in a business, government, or academic environment.
5. Critically assess their engineering capabilities and acquire the additional knowledge and skills they need to maintain currency within their evolving work environment.
6. Assist their employers' organizations in achieving their business goals.

#### valuable online resources

- Apply Online
- Curriculum Charts
- Department Faculty Members
- [www.monmouth.edu/csse](http://www.monmouth.edu/csse)

**For complete information on all undergraduate programs within the School of Science, please visit [www.monmouth.edu/science](http://www.monmouth.edu/science).**