

COMPUTATIONAL MATHEMATICS MAJOR (B.S.)

Purpose

The Bachelor of Science in Computational Mathematics major provides an opportunity for students to develop strong problem-solving and analytical skills as they work across diverse areas of mathematics and science. Through the program, students will take courses including Applied Differential Equations and Mathematical Modeling and Simulation. Graduates of this program will gain a foundation of knowledge and practical experience which will prepare them for careers in various fields of industry. The Actuarial Concentration uses the mathematical sciences of probability over long periods of time, harnessing the skillsets of mathematicians and equipping students to apply these insights in the fields of business, insurance, and related industries. Through this program, students will be introduced to the material in the first actuarial exam and will complete the coursework necessary to gain two Validation by Educational Experience (VEE) credits, which are necessary for becoming an actuary.

Program Learning Outcomes

The student will be able to:

- Solve problems using mathematical expertise.
- Use appropriate technology to solve problems, access information and develop insight.
- Communicate mathematical ideas or proofs clearly.

Actuarial Concentration

- The student will be able to relate principles of probability, accounting, economics, and finance to the role of an actuary.

Programs of Study

Delivery Format: Online Only

- Computational Mathematics (B.S.) - Actuarial - Online
- Computational Mathematics (B.S.) - Computer Science - Online
- Computational Mathematics (B.S.) - Engineering - Online
- Computational Mathematics (B.S.) - Information System - Online
- Computational Mathematics (B.S.) - Online

Career Opportunities

- Mathematician
- Statisticians