



BACHELOR OF SCIENCE IN MATHEMATICS

Opportunities abound for math majors in the fields of technology, education, business, government, the arts, and in many other professions. Graduates of the mathematics program at Monmouth University have pursued a variety of careers in teaching, business, and in other technical fields. Employers are looking for people who can think logically and provide a unique perspective in solving problems. A bachelor's degree in mathematics prepares students to do this.

In today's world, with computers on nearly every desktop, the ability of the mathematician to do routine computations has become less important. What is needed is the ability to analyze a problem by examining the mathematical components that are involved. Whether it's computing the optimal path of an airline's routes or the minimal surface needed to cover a given frame, the mathematician is prepared to solve a wide range of problems using a variety of techniques.

At Monmouth, mathematics majors begin with calculus and a unique course in mathematical reasoning. Rather than listening to lectures, students often work in groups within small classes, attacking complex problems that bring out principal ideas. In addition, computers are sometimes used as a mathematical laboratory, enabling students to perform experiments and make

conjectures. These courses and experiences help provide a foundation for the more advanced courses in the program. This includes differential equations, number theory, and complex analysis.

Mathematics majors at Monmouth also have an extracurricular advantage in the Mathematics Learning Center, where they have the opportunity to reinforce their own learning by tutoring students in lower-level math classes. In addition, students may fulfill their experiential education requirement by taking a mathematical modeling course in which a real-world situation is studied, simplified, and abstracted to the point that mathematical tools can be applied to gain understanding. In this class the students work in teams investigating problems from local industries or organizations.

Career Preparation

Currently, many graduates with mathematics degrees are responding to the great need for mathematics teachers and finding employment in the field of education. Future teachers benefit from learning mathematical skills in the classroom with faculty who

are themselves dedicated teachers. For those who will seek employment in other fields, mathematics is a respected major that provides a base for future learning in many areas of business and industry with technical aspects. Graduates who wish to pursue advanced degrees may benefit from the program's broad focus on pure and applied mathematics and statistics—a great foundation for Monmouth's Master of Science in Financial Mathematics. This 36-credit program integrates mathematics with financial analysis to produce graduates who are interested in careers with major banking, insurance, and financial services companies.

valuable online resources

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For complete information on all undergraduate programs within the School of Science, please visit www.monmouth.edu/science.