

# MATHEMATICAL SCIENCES, B.S.

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**Begin Campus:** Any Penn State Campus

**End Campus:** Harrisburg

## Program Description

The three options and the variety of the course offerings provide concentrations in various areas such as actuarial science, management science/operation research, statistics, education, and preparation for graduate studies.

Small classes, excellent faculty, opportunities to work with faculty on projects, and strong employment prospects are just some of the strengths of the program. Students will be helped to develop:

- a solid foundation in mathematical studies;
- an awareness of the utility of mathematics, statistics, and computers;
- skills in translating practical problems into mathematical terms;
- a competency in the use of modern mathematical tools;
- problem-solving skills; and
- an awareness of the importance of mathematics in society.

The program is designed to prepare students for employment in business, industry, government, and education immediately after graduation, but graduate study in mathematics or related disciplines is also a viable alternative. Mathematical modeling is emphasized, and all students are required to take courses in statistics and computer science.

## What is Mathematical Sciences?

Mathematical Sciences is the study of mathematics and its application to problems in the real world. This discipline includes both theoretical topics such as calculus, abstract algebra, real analysis, and number theory and applied topics such as statistics, math modeling, operations research, and quantitative finance.

## You Might Like This Program If...

- You like mathematics and learning how to apply it to real-life problems.
- You enjoy logical and analytical reasoning.
- You like solving new problems.
- You enjoy understanding the justification of why a mathematical method works.
- You like analyzing methods of solution in order to make those methods more effective.
- You enjoy helping others to learn mathematics and to grasp both its utility and beauty.