# THE OHIO STATE UNIVERSITY

#### **Department of Mathematics**

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# **Mathematics Program Selection**

## **Majors**

# **Actuarial Science Major**

Actuaries are experts in the design, financing, and operation of all kinds of insurance and pension plans. This major is designed to prepare a student for actuarial profession by providing substantial course work in mathematics and statistics within the framework of a liberal arts education.

## **Honors Math Track (no ASC Honors Contract required)**

The Department of Mathematics offers a strong four-year sequence of honors courses as well as enrichment courses and problem-solving seminars. These courses are accelerated, more concept-oriented versions of the regular sequences designed to challenge the well-prepared, highly motivated student who is not, necessarily, a math major.

### **Theoretical Math Track**

The Theoretical Track is intended for students seeking a strong foundation in classical mathematics. Traditionally, that includes the real analysis and abstract algebra sequences. Students planning to pursue a PhD. in mathematics are strongly encouraged to take the honors version of the math courses, whenever possible.

#### **Education Math Track**

The Education Track is designed for students seeking secondary education licensure in mathematics. A minimum GPA of 2.7 is required in the math courses and a minimum 3.0 GPA overall.

# **Financial Math Track**

The Financial Math Track is designed for students seeking a career in quantitative finance or a related field. Students planning to pursue graduate studies in financial mathematics are strongly encouraged to take the honors versions of the mathematics courses, whenever possible.

## **Biology Math Track**

"Mathematics is applicable to many different aspects of biology, and new applications are continually being found." This major is designed to prepare a student for research in mathematical biology or medicine.

## **Applied Math Track**

This Applied Math Track is intended for students seeking a strong foundation in mathematics and its application in physical sciences. The track has two options: applied math & physics or applied math & chemistry.

### **IMME** – Integrated Major in Mathematics and English

This Math and English Track is an innovative program designed to provide students with high-level preparation stressing an integrated, complementary mastery of quantitative and communication skills. Students will be prepared for careers that require strong preparation in analysis and expression, as well as graduate school.

# Mathematics and Actuarial Science Double Major / Dual Degree

The Department of Mathematics has developed these programs that combine the mathematics and actuarial science majors. Students will receive the foundations in actuarial science while strengthening their skills in classical mathematics. Students will have a strong background to enter the actuarial science field or attend graduate school.

## Minors

#### **Mathematics**

Mathematical methods are used today in the social sciences as well as the physical and biological sciences. A minor program in mathematics is a useful supplement to a major program in many widely differing areas.

## **Statistics**

A demonstrated knowledge and working understanding of basic statistical techniques and methods is a critical element on today's competitive marketplace. The undergraduate minor in statistics will be a valuable asset to your Actuarial Science or Mathematics Degree.