

# MATHEMATICS: PURE MATHEMATICS TRACK (MATH)

Our research specialties are in algebra, analysis, geometry, number theory, probability and topology. The American Mathematical Society has ranked us in the top group of U.S. research departments. Industries employ mathematicians doing statistical and actuarial work (for example the financial and insurance industry, and healthcare), in accounting, computer software, and in engineering-related industries, like aerospace. Many mathematicians plan to enter other professions upon graduation, and many attend graduate or professional school in other areas (for example law, medicine, economics or physics). The Pure Mathematics track is for students intending to go to graduate school in mathematics.

## TOP FIVE REASONS TO STUDY THIS MAJOR

1. Increase your capacity to think analytically.
2. Develop skills to solve complex problems.
3. Engage with a variety of mathematic subfields
4. Participate in an active collaborative program.
5. Prepare yourself for a wide variety of future careers or further studies.



College of Arts and Sciences  
541-346-4705  
[math.uoregon.edu](http://math.uoregon.edu)

## WHERE CAN I GO?

Students in Mathematics may choose to pursue a Bachelor of Arts (BA) or Bachelor of Science (BS), a Master of Arts (MA) or Master of Science (MS), or a Doctor of Philosophy (PhD). Mathematics provides students with a foundation for employment in:

Computer systems design firms

Software and technology companies

Local, state, and federal government agencies

Insurance agencies

Brokerage firms

Professional, scientific, and technical consulting firms

Financial companies and banks

Research institutes

K-12 schools

Colleges and universities

## ALUMNI JOBS

Actuary analyst

Software engineer

Energy resource analyst

Geologist

Technology consultant

Senior application analyst

## COURSES YOU MAY NEED

### 1ST YEAR

MATH 25x; MATH 307+4 lab, MATH 231/2+2 lab, or MATH 261/2+2 lab; CS 122, CS 210, or other

### 2ND YEAR

MATH 281, MATH 282, MATH 341

### 3RD YEAR

MATH 342; MATH 316 & 317

### 4TH YEAR

Choose one: (a) MATH 391 & 392; MATH 444 & 445; Choose two 3xx-4xx MATH from approved list

## MAJOR CREDITS

Required	44
Electives	16
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Total	60

## CORE EDUCATION REQUIREMENTS

BS or BA Degree Minimum = 180 credits.

Core Education is approximately 71—83 credits depending on transfer credits and placement scores and requires courses in:

Writing

Math and/or CS (BS) or Language (BA)

US: Difference, Inequality, Agency

Global Perspectives

Areas of Inquiry in:

Arts and Letters

Social Science / Science

## WHAT WILL I LEARN?

Statistics

Theoretical and applied research

Accounting and finance

Project management

Systems analysis

Risk assessment

Actuarial science

Probabilistic and other analytic methods

Teaching and tutoring

Technical writing

## EXPERIENTIAL LEARNING OPPORTUNITIES

Paid summer internships

Experience for Undergraduates (REU)

Math Circle Assistant

## SPECIALIZED COURSES

Analysis and Number Theory

Combinatorics

Differential Equations

Abstract Algebra

History and Applications of Calculus

Topology

Differential Geometry

Mathematical Cryptography

## ADD A MINOR OR CERTIFICATE

[Business Administration](#)

[Chemistry](#)

[Computer Information Science](#)

[Computer Information Technology](#)

[Economics](#)

## CONTACT US

Tykeson College and Career Advising  
541-346-9200  
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