Mathematics

Bachelor of Science

2025-2026

Nature of Work: Mathematics is one of the oldest and most basic sciences. Most important scientific discoveries about our world involve mathematics in some way. Mathematicians engage in a range of activities including educating, modeling and solving real world problems, and discovering new mathematics. Students with mathematics degrees from Walla Walla University go into a wide variety of occupations. While some go into secondary education, others find that the mathematics major is excellent preparation for professional schools such as law, medical, or veterinary school. Still others go on to graduate school in mathematics, engineering, or statistics, with eventual careers working in industry, teaching in colleges or universities, or conducting research. Some of our majors enter the workplace immediately after graduation, working as actuaries, in business, software development, at engineering firms or healthcare providers, or even in law enforcement.

Professional Training: Students select mathematics as a major because they enjoy studying logical systems and solving interesting problems. Mathematics majors need creativity and the ability to communicate clearly both verbally and in writing. The B.S. degree is more specialized than the B.A. degree in that it includes more mathematics and science courses, and it does not require a minor or a foreign language. The Walla Walla University B.S. degree in mathematics offers five career pathways:

- **Actuarial science:** emphasizes statistics and business courses to prepare students to become professionals who manage risk;
- **Careers in data science:** emphasizes statistics and computer courses helpful for a career understanding and analyzing data.
- **Graduate school in mathematics:** emphasizes theoretical courses as preparation for post-graduate coursework;
- **Science and applied mathematics:** includes courses emphasizing mathematical modeling and mathematical subjects useful in physics and other applied domains;
- **Secondary teaching:** includes courses required for a high school teaching endorsement in mathematics.

Students who wish to work in applied mathematics or statistics often go on to earn a master's degree before entering the workforce. A Ph.D. degree is ordinarily required if one wishes to go into mathematical research. Most researchers are also college or university professors, but some work for government agencies or private industry.

Job Outlook: According to the Bureau of Labor Statistics (BLS), "employment of math occupations is projected to grow 29 percent from 2021 to 2031, much faster than the average for all occupations, and will add about 82,000 jobs." Mathematicians will particularly be needed for data analysis and information security analysis in business operations. (See www.bls.gov)

Earnings: In their May 2021 salary survey, the Bureau of Labor Statistics reports the median annual wage for mathematicians and statisticians as $96,280; and $105,900 for actuaries. (See www.bls.gov)

Note: **Before graduation, all students must take an exit exam.**

MATH DEPARTMENT

Kretschmar Hall
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Websites

Walla Walla University
University Bulletin
Mathematics Department

Faculty

Chair
Benjamin Jackson

Advisors
John Foster
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Ross Magi
Stefan Sremac
Tim Tiffin

Professional Organizations

Mathematical Association of America

Society for Industrial & Applied Mathematics

Society of Actuaries

American Mathematical Society

Suggested Degree Path

TOTAL CREDITS REQUIRED 192 cr. GENERAL STUDIES REQUIREMENTS: 64-69 cr. See the Undergraduate Bulletin for Details
The chart below details one suggested path a student may take to complete a bachelor's degree in Math.
Cognates are listed in *italics* and courses marked UD must be at the 300 or 400 level.

Freshman Year

Fall Courses	Hours
Calculus I (MATH 171)	4
Intro to Analytical Writing (ENGL 121)	3
Cognate	4
General Studies: P.E.	1
General Studies Foundations of Faith	4
Total	16

Winter Courses	Hours
Calculus II (MATH 172)	4
Intro to Research Writing (ENGL 122)	3
Cognate	4
General Studies: P.E.	1
General History: Humanities	4
Total	16

Spring Courses	Hours
Intro to Linear Algebra (MATH 239)	4
Computing for Insight (CPTR 230)	4
Cognate	4
General Studies: Oral Communication	4
Total	16

Sophomore Year

Fall Courses	Hours
Calculus III (MATH 273)	4
Cognate	4
General Studies: Religion and Theology	4
General Studies: History	4
Total	16

Winter Courses	Hours
Discrete Mathematics (MATH 250)	4
Differential Equations (MATH 286)	3
Cognate	4
General Studies: Engaging the Arts	3
General Studies: Engaging Faith	2
Total	16

Spring Courses	Hours
Calculus IV (MATH 274)	4
Cognate	4
General Studies Social Science	4
General Electives	4
Total	16

Junior Year

Fall Courses	Hours
^ Math / Career Pathways Electives	4
General Studies: Engaging History and Philosophy	4
General Studies: Engaging Faith	4
General Electives	4
Total	16

Winter Courses	Hours
Junior Math Seminar I (MATH 397)	0
^ Math / Career Pathways Electives	8
General Studies: Social Science	4
General Electives	4
Total	16

Spring Courses	Hours
Probability and Statistics (MATH 315)	4
^ Math/ Career Pathways Electives	4
General Electives	8
Total	16

Senior Year

Fall Courses	Hours
Senior Math Seminar I (MATH 496)	4
^Math/Career Pathways Electives	4
General Studies: Exploring SDA Life and Thought	4
General Electives	4
Total	16

Winter Courses	Hours
Senior Math Seminar II (MATH 497)	1
^ Math Concentration/Electives	4
General Electives	11
Total	16

Spring Courses	Hours
Senior Math Seminar III (MATH 498)	1
^ Math Concentration/Electives	3
General Electives	12
Total	16

+ Offered even years only - Offered odd years only

*Students in the Actuarial Studies concentration take Principles of Accounting (ACCT 201, 202), Macro and Micro Economics (ECON 210, 211), and several finance classes (FIN 351, 365, and 441) instead of Principles of Physics and an additional science sequence.
^ For concentration and mathematics electives requirements, reference the Mathematics section of the bulletin.
Individuals seeking teaching certification should contact the School of Education and Psychology. Additional mathematics courses required for teaching certification are:

- Data Analysis .....(MATH 215)
- Probability and Statistics .....(MATH 315)
- Survey of Geometries in their Historical Contexts .....(MATH 321)
- Methods of Teaching Mathematics .....(MEDU 395)

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