Walla Walla University
SEVENTH-DAY
ADVENTIST
HIGHER
EDUCATION

Office of Academic Advisement

Mathematics
Bachelor of Arts
2022-2023

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 many 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 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.A. degree is more general than the B.S. degree in that it includes a foreign language and a minor, but requires fewer mathematics and science courses. Students planning to teach at the secondary level will need to take additional education courses as a part of their undergraduate program.

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. Mathematical research involves creating new mathematics, improving existing mathematics, or developing new applications of mathematics for scientific or business problems. 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 28 percent from 2020 to 2030, much faster than the average for all occupations, and will add about 67,200 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 $108,100; and $105,900 for actuaries. (See www.bls.gov)

Note: <u>Before graduation, all students must take an exit exam.</u>

MATH DEPARTMENT

Kretschmar Hall
(509) 527-2751

Websites
Walla Walla University
University Bulletin

Mathematics Department

Faculty
Chair
Benjamin Jackson

Advisors
John Foster
Benjamin Jackson
Ross Magi
Tim Tiffin

Professional Organizations
Mathematical Association of America

Society for Industrial & Applied Mathematics

Society of Actuaries

American Mathematical Society

TOTAL CREDITS REQUIRED: 192 cr. GENERAL STUDIES REQUIREMENTS: 72-81cr. 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.
<u>All B.A. degrees require a minor</u>
Cognates are listed in *italics* and courses marked UD must be at the 300 or 400 level.
+ Offered even years only   - Offered odd years only

Freshman

Fall Courses	Hours	Winter Courses	Hours	Spring Courses	Hours
Calculus I (MATH 181)	4	Calculus II (MATH 281)	4	Calculus III (MATH 282)	4
Modern Language Sequence	4	Modern Language Sequence	4	Modern Language Sequence	4
College Writing I (ENGL 121)	3	College Writing II (ENGL 122)	3	*Fund. of Programming I (CPTR 141)*	*4*
General Studies P.E. Activity	1	General Studies P.E. Activity	1	General Electives or Minor	4
General Electives or Minor	4	General Studies Religion	4		
Total	16	Total	16	Total	16

Sophomore

Fall Courses	Hours	Winter Courses	Hours	Spring Courses	Hours
Calculus IV (MATH 283)	4	Discrete Mathematics (MATH 250)	4	Ordinary Differential Equations (MATH 312)	4
General Studies Humanities	4	Research Writing (ENGL 223)	3	General Studies Humanities	4
General Studies Science	4	Intro to Linear Algebra (MATH 289)	3	General Studies Religion	4
General Electives or Minor	4	General Studies Religion	2	General Electives or Minor	4
		General Studies Science	4		
Total	16	Total	16	Total	16

Junior

Fall Courses	Hours	Winter Courses	Hours	Spring Courses	Hours
+ Abstract Algebra I (MATH 461)	4	Junior Math Seminar I (MATH 396)	0	Junior Math Seminar II (MATH 397)	0
General Studies History	4	*Mathematics Electives	3	*Mathematics Electives	4
General Studies Religion (UD)	4	General Studies History	4	General Electives or Minor	12
General Electives or Minor	4	General Studies Social Science	4		
		General Electives or Minor	5		
Total	16	Total	16	Total	16

Senior

Fall Courses	Hours	Winter Courses	Hours	Spring Courses	Hours
- Real Analysis I (MATH 451)	4	Senior Math Seminar I (MATH 496)	1	Senior Math Seminar II (MATH 497)	1
General Electives or Minor	12	*Mathematics Electives	4	General Studies Humanities	4
		General Studies Religion (UD)	4	General Electives or Minor	11
		General Electives or Minor	7		
Total	16	Total	16	Total	16

*Math electives must include either MATH 452 or MATH 462 and at least 8 upper division hours.
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)