Mathematics (BS)

This program is offered by the College of Science and Health/Natural Sciences and Mathematics Department and is only available at the St. Louis main campus.

Program Description

The Bachelor of Science Degree in Mathematics at Webster University combines both theoretical and applied topics in mathematics. By studying a wide range of subjects in the field of mathematics, students in this program will acquire strong deductive reasoning and analytical problem-solving skills, be able to apply mathematics to solve real-world problems, and will be able to effectively communicate mathematical ideas, problems, solutions, and proofs. Graduates from our mathematics program are well prepared for careers in education, industry, or for further study in graduate school.

Learning Outcomes

Successful graduates of this program will be able to:

- Demonstrate strong deductive reasoning and critical-thinking skills.
- Demonstrate a knowledge of a range of topics covered in the mathematics curriculum.
- Demonstrate the ability to solve problems related to the content of the mathematics curriculum.
- Effectively communicate mathematical concepts, problems, solutions, and proofs.
- Solve basic problems in physics.
- Demonstrate basic computer programming skills.

Degree Requirements

For information on the general requirements for a degree, see Baccalaureate Degree Requirements under the Academic Policies and Information section of this catalog.

- 62 required credit hours
- Applicable University Global Citizenship Program hours, with accommodations for the mathematics BS
- Electives

Global Citizenship Program for Mathematics BS

Requirements are modified to allow one course with the MATH prefix to satisfy both a requirement of the major and also the GCP 'Quantitative Literacy' requirement.

Required Courses

At least 30 of the required 62 mathematics credit hours must be taken at Webster University.

- MATH 1610 Calculus I (5 hours)
- MATH 1620 Calculus II (5 hours)
- MATH 2200 Statistics (3 hours)
- MATH 2410 Discrete Mathematics (3 hours)
- MATH 2440 Calculus III (5 hours)
- MATH 2450 Introduction to Abstract Mathematics (3 hours)
- MATH 2800 Differential Equations (3 hours)
- MATH 3160 Linear Algebra (3 hours)
- MATH 3500 Introduction to Algebraic Structures (3 hours)
- MATH 3530 Modern Geometry (3 hours)
- MATH 3610 Probability (3 hours)
- MATH 4010 Introduction to Abstract Algebra (3 hours)
- MATH 4110 Introduction to Real Analysis (3 hours)
- MATH 4800 Senior Seminar (3 hours)
- COSC 1550 Computer Programming I (3 hours)
- COSC 1560 Computer Programming II (3 hours)
- PHYS 2030 University Physics I (3 hours)
- PHYS 2031 University Physics I Lab (1 hour)
- PHYS 2040 University Physics II (3 hours)
- PHYS 2041 University Physics II Lab (1 hour)