Mathematics (BS)

This program is offered by the Walker School of Business & Technology/Math & Computer Science Department.

Program Description
Mathematics is a powerful tool used in the natural and social sciences for understanding and predicting the world around us. It also has a beauty of logic and structure within itself, as well as being useful for a wide variety of applications. Students interested in the natural and social sciences are encouraged to have a second major or a minor in mathematics. Graduates with a major in mathematics would be employed anywhere there is a need to solve numerical and logical problems.

Learning Outcomes
- Students will demonstrate critical thinking skills in the area of mathematics.
- Students will demonstrate the ability to solve problems related to the program content.
- Students will demonstrate in depth knowledge of calculus.
- Students will demonstrate comprehension with a variety of mathematics, chosen from applied and/or theoretical topics.
- Students will gain basic computer programming skills.

Degree Requirements
A minimum of 128 credit hours consisting of the following:
- 55 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 18 of the required 39 mathematics credit hours must be taken at Webster University; MTHT courses may not be used for the mathematics major.
- MATH 1610 Calculus I (5 hours)
- MATH 1620 Calculus II (5 hours)
- MATH 2450 Introduction to Abstract Mathematics (3 hours)
- MATH 3000 Calculus III (5 hours)
- MATH 3040 Differential Equations (3 hours)
- MATH 3160 Linear Algebra (3 hours)
- MATH 3500 Introduction to Algebraic Structures (3 hours)
- Four mathematics courses numbered MATH 3010 and above, excluding all MTHT courses (12 hours)

Students without a second major or a minor in computer science, information management, or information systems are required to take the following course:
- COSC 1550 Computer Programming I (3 hours)
- COSC 1560 Computer Programming II (3 hours)
- Two COSC additional courses (6 hours)

Students without a second major or a minor in biological sciences and who are not getting a teacher certification are required to take the following courses:
- PHYS 2030 University Physics I (3 hours)
- PHYS 2031 University Physics I Lab (1 hour)