

Mathematics (B MATH) Planning Worksheet 2022-2023

Mathematics Website

Prerequisite Courses:			<u>Grade</u>
STMATH 124 Calculus I (NSc, RSN)			
STMATH 125 Calculus II (NSc)			
STMATH 126 Calculus III (NSc)			
Admissions Requirements: Students must have an average 2.5 GPA (3.0			
recommended) in the prerequisite courses with a minimum 2.0 in each course.			
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General Education and Areas of Inquiry			
Writing Requirement – 15 credits		Natural Sciences (NSc) – 15 credits	
☐ B WRIT 134 Composition or B WRIT 132 & 133		STMATH 124 Calculus I	
☐ B WRIT 135 Research Writing		STMATH 125 Calculus II	
Course:		STMATH 126 Calculus III	
Arts & Humanities (A&H) – 15 credits		Social Sciences (SSc) – 15 credits	
☐ Course:		☐ Course:	
☐ Course:		☐ Course:	
Course:		Course:	
Reasoning (RSN) – 5 credits		Diversity (DIV) – 3 credits	
STMATH 124 Calculus I		☐ Course:	
General Electives or Other Courses			
A W Sp Su 20_	A W Sp Su 20_	A W Sp Su 20	A W Sp Su 20
Course/Requirement	Course/Requirement	Course/Requirement	Course/Requirement
1	1	1	1
2	2	2	2
3	3	3	3
(4)	(4)	(4)	(4)

Applying to Mathematics

(Subject to change. Please check with your advisor)

How to Apply:

- The internal online application for Pre-major students is available at https://admissions.uwb.edu/apply/
- The internal application includes a personal statement and unofficial transcripts from all colleges, including UW Bothell.
- The application has fields for a resume and additional comments, which are optional.

Personal Statement:

In your personal statement of 500-1000 words please address the following:

- 1. Why are you interested in pursuing the mathematics major at UWB?
- 2. Do you have any related educational, work or volunteer experience?
- 3. What further education and/or career are you planning on pursuing after earning your degree?
- 4. If you had periods of academic difficulty, what did you learn and how did you grow?

Important Program Information:

As students transition from the prerequisite mathematics courses (the calculus sequence) into the upper-division mathematics courses, they may notice that the nature of these courses are deeper, more abstract, and more conceptual than the previous courses. The prerequisite courses focus on developing computational methods and using these methods in real-world applications. Where the upper-division courses focus on the theory of mathematics. Theoretical math requires students to master the skill of developing and writing well-reasoned arguments, called proofs.

<u>Proofs</u> call on students to apply techniques from logic to abstract mathematical concepts and definitions to understand why mathematical facts (theorems) are true and the extent to which such facts can be applied in other areas of mathematics. Upon entry into the major, students typically take STMATH 300 - Foundations of Modern Math, where logic and proof techniques are introduced. By the end of this course, students should have a solid understanding of proof writing and foundational mathematical structures used in future courses, includes the theory of sets, relations, and functions.

Subsequent courses (some required, some optional) emphasizing theory and proof writing include:

STMATH 300* — Foundations of Modern Math STMATH 427 — Complex Analysis

STMATH 402*/403 — Abstract Algebra I/II STMATH 441 — Topology

STMATH 424*/425 — Real Analysis I/II STMATH 420 — History of Mathematics

STMATH 444 — Foundations of Geometry

Courses marked * are required for the major.

Additional Courses to take (Courses fulfill graduation requirements):

- CSS 142/CSSSKL 142 Computer Programming I
- B PHYS 121 Mechanics & B PHYS 122 Electromagnetism & Oscillating Motion

Am I competitive?

- Admission to the Mathematics major is not competitive.
- Must have an average GPA of 2.5 in the three prerequisite courses with no grade less than a 2.0.

Other Important Information for Applicants:

- Students with a 3.0 average GPA in the prerequisites tend to be more successful.
- All UW students must take 15 credits of Composition/Writing. Mathematics does not require specific writing coursework.