

Advising sheet for: MAJOR IN MATHEMATICS

Assumption University, Department of Mathematics and Computer Science
Checklist

The major consists of a total of twelve required courses, which comprise eight specifically required courses, four electives and a comprehensive examination.

We recommend to students interested in the mathematics major: follow your math placement, and take Calculus I as early as possible, because it is part of the major required sequence MAT-117/131, 118/132, 231-232.

Required Courses (8)

Completed	Requirement	Course	Prerequisite	Semester Planned
	Calculus I	*MAT-131H (Fall) or MAT-117	Placement or MAT-114	
	Calculus II	*MAT-132H (Spring) or MAT-118	MAT-131 or MAT-117	
	Programming	CSC-117 (Fall) or CSC-120		
	Calculus III	MAT-231 (Fall)	MAT-118 or MAT-132	
	Multivariable Calculus	MAT-232 (Spring)	MAT-231	
	Discrete Structures	MAT-202 (Fall)	MAT-118/132 (completed or concurrent)	
	Linear Algebra	MAT-203 (Spring)	MAT-202	
	Mathematics Seminar	MAT-401 (Fall)	Senior math major	
	Senior Math Assessment	Comprehensive Exam, not a course		Final semester

*Students considering a major in mathematics are encouraged to take MAT-131-132 rather than MAT-117-118 in their first year.

Electives (4):

A. Take (at least) one restricted elective:

MAT-332 Real Analysis, prerequisite MAT-232 and MAT-202 [Fall, odd years]

MAT-351 Modern Algebra I, prerequisite MAT-202 [Fall, even years]

MAT-358 Topology, prerequisite MAT-202 and MAT-232 [Spring, even years]

B. And take (at least) one more 300+ level Math course - from above, or:

MAT-352 Modern Algebra II, prerequisite MAT-351 [Spring, odd years]

MAT-353 Advanced Euc. Geometry, prerequisite Calculus II and MAT-202 [Fall, odd years]

MAT-355 Differential Equations, pre-/co-requisite MAT-232 [Spring, odd years]

MAT-356 Numerical Analysis, prerequisite Calculus II [Spring, even years]

MAT-402 Mathematics Thesis, senior math major [any semester]

C. And take (at least) two more 200+ level Math courses – from above, or:

MAT-204 Number Theory, prerequisite MAT-202 [Spring, even years]

MAT-207 Actuarial Mathematics, prerequisite MAT-202 [Fall, even years]

MAT-208 Probability Theory, prerequisite Calculus II [Spring]

PHY-213 Intro to Engineering Problem Solving, pre-/co-requisite Calculus II [Spring]

Completed	Course	Semester Planned

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*A suggested schedule - for students entering in Fall 2021, or any year.
See Assumption's Catalog for additional information, e.g. Core Curriculum requirements.*

First Year: Fall 2021	Spring 2022
1. MAT-131 Honors Calculus I [Fall only] Or MAT-117 Calculus I [any semester] <i>Follow your Math Placement.</i>	1. MAT-132 Hon. Calculus II [Spring only] Or MAT-118 Calculus II [any semester] <i>Finish Calculus I-II soon if possible.</i>
2. CSC-117 Intro. Programming [Fall] Or CSC-120 Stats Programming [any term]	2.
3.	3.
4.	4.
5.	5.

Second Year: Fall 2022	Spring 2023
1. MAT-202 Discrete Structures [Fall]	1. MAT-203 Linear Algebra [Spring]
2. MAT-231 Calculus III [Fall]	2. MAT-232 Multivariable Calculus [Spring]
3.	3.
4.	4.
5.	5.

Third Year: Fall 2023	Spring 2024
1. Math Major Elective #1/4	1. Math Major Elective #2/4
2.	2.
3.	3.
4.	4.
5.	5.

Fourth Year: Fall 2024	Spring 2025
1. MAT-401 Mathematics Seminar [Fall]	1. Math Major Elective #4/4
2. MAT Major Elective #3/4	2.
3.	3.
4.	4.
5.	5.
	6. Sr Math Assessment Exam; not a course