## Advising sheet for: MAJOR IN MATH; ELEMENTARY EDUCATION TRACK

Assumption University, Department of Mathematics and Computer Science Checklist

The Elementary Track applies only to those students who are pursuing a concurrent Major in Education with a licensure emphasis in Elementary (1-6). If a student withdraws from the Education Major, then the option to pursue the Elementary Track in the Mathematics Major no longer applies. Mathematics Majors who are pursuing licensure in Middle/Secondary Education (5-8; 8-12) would still take the standard twelve courses required for the Mathematics Major.

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.

Completed	Requirement	Course	Prerequisite	Semester Planned
	Calculus I	*MAT-131H ( <mark>Fall</mark> ) or MAT-117	Placement or MAT-114	
	Calculus II	*MAT-132H ( <mark>Spring</mark> ) or MAT-118	MAT-131 or MAT-117	
	Calculus III	MAT 231 (Fall)	MAT-118 or MAT-132	
	Numbers and Operations for Educators	MAT-150	MAT-114 or higher	
	Discrete Structures	MAT-202 ( <mark>Fall</mark> )	MAT-118/132 (completed or concurrent)	
	Linear Algebra	MAT-203 (Spring)	MAT-202	
	Senior Math Assessment	Comprehensive exam, not a course		Final semester

## <u>Required Courses</u> (6)

\*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-401 Mathematics Seminar, senior math major [Fall]
  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] MAT-232 Multivariable Calculus, prerequisite Calculus III [Spring]

\*\*The MAT/CSC Department recommends these particular major-electives for students in Elementary Education track.

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 courses required for Elementary Education Major.

First Year: Fall 2021	Spring 2022
1. MAT-131 Hon. Calculus I [Fall only]	1. MAT-132 Hon. Calc. II [Spring only]
Or MAT-117 Calculus I [any semester]	Or MAT-118 Calculus II [any term]
Follow your Math Placement.	Finish Calculus I-II soon if possible.
2.	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-150 [any semester]
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. MAT Major Elective #3/4
3.	3.
4.	4.
5.	5.

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