Checklist for Mathematics Major

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

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

- Each mathematics major must pass a comprehensive examination administered at the end of the fall or the spring semester of the senior year. The exam is based on material covered in the required courses.

Required Courses (8)

Requirement	Course	Fall	Spring	Prerequisite	Semester Planned	Completed
Calculus I	MAT 131H or	x		Placement		
	MAT 117	x	x	MAT 114 or placement		
Calculus II	MAT 132H or		x	MAT 131H		
	MAT 118	x	x	MAT 117		
Programming	CSC 117 or	x				
	CSC 120	x	x	MAT 111 or placement		
Calculus III	MAT 231	x		MAT 118 or MAT 132H		
Multivariable Calculus	MAT 232		x	MAT 231		
Discrete Structures	MAT 202	x		MAT 118/132H, or coreq.		
Linear Algebra	MAT 203		x	MAT 202		
Mathematics Seminar	MAT 401	x		Senior math major		
Senior Math Assessment (Comp. Exam, not a course)		x	x	Senior math major		

Electives (4)

Requirement	Course	Fall	Spring	Prerequisite	Semester Planned	Completed
A. Take at least one of:						
Real Analysis	MAT 332	Odd		MAT 202 and MAT 231		
Modern Algebra	MAT 351	Even		MAT 202		
Topology	MAT 358	Occasionally		MAT 202 and MAT 231		
B. Take at least one more 300+ level from above or from B:						
Modern Algebra II	MAT 352	Occasionally		MAT 351		
Adv. Euclidean Geometry	MAT 353	Odd		MAT 118/132H and MAT 202		
Differential Equations	MAT 355		Odd	MAT 231, or corequisite		
Numerical Analysis	MAT 356		Even	MAT 118/132H		
Mathematics Thesis	MAT 402	x	x	Senior math major		
C. Take at least two more 200+ level Math courses from above, or:						
Number Theory	MAT 204		Even	MAT 202		
Actuarial Mathematics	MAT 207	Even		MAT 202		
Probability Theory	MAT 208		Odd	MAT 118/132H		
Special Topics in Math	MAT 299	Occasionally		MAT 117		
Intro to Engineering	PHY 213		x	MAT 118/132H, or coreq.		

Suggested Schedule for Mathematics Major

See Assumption's Catalog for additional information, e.g. Foundations requirements.

First Year: Fall 20____	Spring 20____
1. MAT 131H Honors Calculus I (Fall only), or MAT 117 Calculus I (any semester), or follow your math placement	1. MAT 132H Honors Calculus II (Spring only), or MAT 118 Calculus II (any semester). Finish Calculus II as soon as possible.
2. CSC 117 Intro. Programming (Fall) or CSC 120 Stats Programming (any semester)	2.
3.	3.
4.	4.
5.	5.

Second Year: Fall 20____	Spring 20____
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 20____	Spring 20____
1. Math Major Elective #1/4 *	1. Math Major Elective #2/4 *
2.	2.
3.	3.
4.	4.
5.	5.

Fourth Year: Fall 20____	Spring 20____
1. MAT 401 Mathematics Seminar (Fall)	1. Math Major Elective #4/4 *
2. Math Major Elective #3/4 *	2.
3.	3.
4.	4.
5.	5.
	Sr Math Assessment Exam; not a course

* = electives may be taken any semester