

MATHEMATICS MAJOR: CONCENTRATION IN TRADITIONAL MATHEMATICS

Admission Requirements for the Mathematics Major

Rigorous high school coursework with above-average grades in mathematics and/or computer science courses.

Requirements for a Major in Mathematics

Students must complete a core of six mathematics courses and one computer science class and in addition select one of three concentrations.

Code	Title	Credits
Core Courses		
(25 credits)		
MA-200	Calculus I	4
MA-201	Calculus II	4
MA-240	Theory of Proof	4
MA-260	Linear Algebra	3
MA-310	Calculus III	4
MA-470	Capstone Experience	3
<i>Ancillary Course</i>		
CS-135	Programming for Non-CS Majors	3
Total Credits		25

MA-200, MA-201 and MA-240 must be completed with grades of at least C- by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C-.

Requirements for a Concentration in Traditional Mathematics

Code	Title	Credits
<i>Required courses:</i>		
MA-320	Ordinary Differential Equations	3
MA-405	Abstract Algebra	3
MA-410	Real Analysis	3
<i>Take two courses from the following:</i>		6
MA-327	Combinatorics and Graph Theory	
MA-340	Modern Geometry	
MA-360	Number Theory	
Three additional credits of mathematics at the 300 or 400 level (this can include the third of MA-327, MA-340, and MA-360 not used above), to be chosen in consultation with the academic advisor.		3
Total Credits		18

Department of Mathematics: Mathematics Major Traditional Concentration Sample Timeline for Completion of Degree

Year One		Credits
Semester One		
MA-200	Calculus I	4
CS-135	Programming for Non-CS Majors (QR)	3
EN-101	College Writing I	3
LASC	First-Year Seminar (FYS)	3

LASC	LASC Elective (NSP)	3
Credits		16
Semester Two		
MA-201	Calculus II	4
MA-240	Theory of Proof	4
EN-102	College Writing II	3
LASC	LASC Elective (CON)	3
LASC	LASC Elective (CA)	3
Credits		17

Year Two		
Semester Three		
MA-260	Linear Algebra	3
MA-310	Calculus III	4
LASC	LASC Elective (NSP LAB)	4
LASC	LASC Elective (USW)	3
LASC	LASC Elective (GP)	3
Credits		17

Semester Four		
MA-320	Ordinary Differential Equations ¹	3
MA-327 or MA-340	Combinatorics and Graph Theory or Modern Geometry	3
LASC	LASC Elective (DIV)	3
LASC	LASC Elective (TLC)	3
SELECT	General Elective	3
Credits		15

Year Three		
Semester Five		
MA-360	Number Theory	3
MA	300 Level Elective in Major	3
LASC	LASC Elective (HBS)	3
SELECT	General Elective	3
SELECT	General Elective	3
Credits		15

Semester Six		
MA-405	Abstract Algebra	3
MA-320	Ordinary Differential Equations ¹	3
LASC	LASC Elective (ICW)	3
SELECT	General Elective	3
SELECT	General Elective	3
Credits		15

Year Four		
Semester Seven		
MA-410	Real Analysis	3
MA-470	Capstone Experience	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
Credits		15

Semester Eight		
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3

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SELECT	General Elective	3
	Credits	12
	Total Credits	122

¹ MA-320 is offered every other Spring.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/major or major/minor) to qualify for graduation. For more information, please view the MajorPlus section of this catalog.