

# MATHEMATICS MAJOR: CONCENTRATION IN SECONDARY EDUCATION

## Admission Requirements for the Mathematics Major

Rigorous high school coursework and strong SAT scores with above average grades in mathematics and 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
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
<b>Total Credits</b>		<b>25</b>

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 the Concentration in Secondary Education

Code	Title	Credits
MA-302	Probability and Statistics	3
MA-309	Topics in Mathematics for Middle and Secondary Teachers	3
MA-340	Modern Geometry	3
MA-405 or MA-410	Abstract Algebra Real Analysis	3
MA-360	Number Theory	3
MA-303	Mathematical Modeling	3
<b>Total Credits</b>		<b>18</b>

It is recommended that students planning to take the Massachusetts Test for Educator Licensure (MTEL) for high school certification also complete a physics course. A secondary education minor, 4+ in Secondary Education or Post Baccalaureate initial license program through the education department are also required for licensure as a math teacher.

It is recommended that students planning to take the Massachusetts Test for Educator Licensure (MTEL) for high school certification also complete a physics course.

Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Department of Mathematics: Mathematics Major Concentration in Secondary Education Sample Timeline for Completion of Degree

Year One		
Semester One		Credits
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 (GP)	3
<b>Credits</b>		<b>16</b>
Semester Two		
MA-201	Calculus II	4
MA-240	Theory of Proof	4
EN-102	College Writing II	3
LASC	LASC Elective (CON)	3
SELECT	General Elective	3
<b>Credits</b>		<b>17</b>
Year Two		
Semester Three		
MA-310	Calculus III	4
MA-260	Linear Algebra	3
LASC	LASC Elective (NSP)	3
LASC	LASC Elective (CA)	3
LASC	LASC Elective (DIV)	3
<b>Credits</b>		<b>16</b>
Semester Four		
MA-303	Mathematical Modeling	3
MA-309	Topics in Mathematics for Middle and Secondary Teachers	3
LASC	LASC Elective (NSP LAB)	4
LASC	LASC Elective (USW)	3
SELECT	General Elective	3
<b>Credits</b>		<b>16</b>
Year Three		
Semester Five		
MA-302	Probability and Statistics	3
MA-360	Number Theory	3
LASC	LASC Elective (HBS)	3
SELECT	General Elective	3
SELECT	General Elective	3
<b>Credits</b>		<b>15</b>
Semester Six		
MA-340	Modern Geometry	3
MA-405	Abstract Algebra <sup>1</sup>	3
LASC	LASC Elective (ICW)	3
LASC	LASC Elective (TLC)	3
SELECT	General Elective	3
<b>Credits</b>		<b>15</b>
Year Four		
Semester Seven		
MA-410	Real Analysis <sup>1</sup>	3
MA-470	Capstone Experience	3
SELECT	General Elective	3
SELECT	General Elective	3

SELECT	General Elective	3
<b>Credits</b>		<b>15</b>
<b>Semester Eight</b>		
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
SELECT	General Elective	3
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>122</b>

<sup>1</sup> Only one of MA-405 or MA-410 is required.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Students should consult with their advisors about minoring in secondary education.