

**Department of Teaching and Learning**  
**Mathematics Education: Teaching Mathematics Grades 7-12: Initial Certification (MTHE-MA)**  
**Program of Study**  
**2020-2021**

<b>Total Units Required</b>		<b>30-40</b>
<b>Content Core Mathematical Courses</b>		<b>2-6</b>
<b>by advisement, approval required</b>		
<b>Course Number</b>	<b>Course Title</b>	<b>Units</b>
MTHED-GE.2050	Mathematical Proof and Proving (required)	2
MTHED-GE.2043	Selected Topics in Modern Mathematics I: Number Theory	3
MTHED-GE.2044	Selected Topics in Modern Mathematics II: Discrete Mathematics	3
MTHED-GE.2103	Mathematical Modeling	3
MTHED-GE.2104	Mathematical Investigation and Problem Posing	2
MATH-GA.xxxx		3
MATH-GE xxxx		3
<b>General Pedagogical Core Courses</b>		<b>14</b>
<b>by advisement, approval required</b>		
<b>Course Number</b>	<b>Course Title</b>	<b>Units</b>
MTHED-GE.2008	Research Investigations in Mathematics Education	3
TCHL-GE.2010	Inquiries into Teaching and Learning III	3
TCHL-GE.2275	Language and Literacy Acquisition and Development	3
TCHL-GE.2515	Adolescent Learners in Urban Contexts	2
SPCED-GE.2162	Educating Students with Disabilities in Middle Childhood and Adolescent Settings	3
<b>Pedagogical Content Knowledge Courses</b>		<b>8-20</b>
<b>by advisement, approval required</b>		
<b>Course Number</b>	<b>Course Title</b>	<b>Units</b>
MTHED-GE.2031	The Teaching of Rational Numbers, Grades 5-12 (required)	2
MTHED-GE.2033	The Teaching of Secondary School Mathematics (required)	3
MTHED-GE.2034	Educational Technology in Secondary School Mathematics (required)	2
MTHED-GE.2035	The Teaching of Algebra, Grades 7-12 (required)	2
MTHED-GE.2036	The Teaching of Geometry, Grades 7-12 (required)	2
MTHED-GE.2122	Professional Seminar for Secondary Mathematics (required)	3
MTHED-GE.2032	The Teaching of Data Collection and Analysis, Grades 7-12	2
MTHED-GE.2037	Teaching Pre-Calculus and Trigonometry in High School	2
MTHED-GE.2080	Teaching of Computer Science	3
MTHED-GE.2110	Introduction to Computer Science Education	3
MTHED-GE.2007	Curriculum and Assessment in Secondary Mathematics	2
MTHED-GE.2300	Independent Study	1-3
<b>Field Work and Student Teaching</b>		<b>6</b>
<b>Course Number</b>	<b>Course Title</b>	<b>Units</b>
TCHL-GE.2005	Fieldwork in Schools and Other Educational Settings	0
MTHED-GE.2911	Supervised Student Teaching I: Middle and High School	3
MTHED-GE.2922	Supervised Student Teaching II: Middle and High School	3
<b>Social Responsibilities of Teachers</b>		<b>0</b>
<b>Course Number</b>	<b>Course Title</b>	<b>Units</b>
TCHL-GE.2999	Drug & Alcohol Education/Child Abuse ID/School Violence	0

Curriculum updated January 2020

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