

**M. Ed. / Initial Licensure in 5-12 Mathematics Education
 Prerequisite Course Evaluation**

What are prerequisites?

Prerequisites are foundational courses required in specific content areas for licensure. Candidates are required to have an undergraduate degree from an accredited institution with a major in mathematics **or** closely related field, and with appropriate liberal arts/general education coursework. Students must verify their concentration area and supporting fields competency by completion of the following courses **or** equivalent. Coursework may be taken at any accredited liberal arts college or university, and you must earn a C- or better.

When do prerequisites need to be completed?

Up to two prerequisite courses may be incomplete at the start of the M.Ed./Initial License program; however, it is strongly encouraged that all prerequisite coursework is completed prior to starting the program. Any in-progress coursework would be counted as complete if an official transcript with proof of enrollment is provided at the time of application. Please check with your program area adviser before registering for any prerequisite coursework.

Content Area	Requirement	U of M Course Options
Basic	General psychology	PSY 1001 or PSTL 1281
Calculus Sequence (two years)	Calculus I	MATH 1271
	Calculus II	MATH 1272
	Linear Algebra & Differential Equations	MATH 2243
	Multivariable Calculus	MATH 2263
Formal Mathematical Reasoning (one course)	Sequences, Series, & Foundations Introduction to Analysis I	MATH 2283 or 3283W* MATH 5615H
Advanced Algebra (one course)	Applied Linear Algebra, <i>or</i> Intro to Modern Algebra, <i>or</i> Cryptology & Number Theory, <i>or</i> Error-Correcting Codes, Fields, <i>or</i> Fund Structures of Algebra I	MATH 4242 MATH 4281* MATH 5248 MATH 5251 MATH 5285H
Discrete Mathematics (one course)	Combinatorics & Graph Theory, Enumerative Combinatorics, <i>or</i> Non-enumerative Combinatorics	MATH 4707* MATH 5705 MATH 5707
Geometry	Geometry I, <i>or</i> Geometry II	MATH 5335* MATH 5336

(one course)		
Probability (one course; with calculus prerequisite)	Elementary Probability, <i>or</i> Theory of Probability & Stats, <i>or</i> Intro to Probability & Stats, <i>or</i> Theory of Statistics	MATH 4653* MATH 5651 STAT 3021 STAT 5101

*recommended course