

Curriculum map
 Department of Mathematics
 (last revised December 3, 2018)

Learning outcomes (LOs): Having completed a major in mathematics, a student will be able to:

1. Demonstrate proficiency with the calculational techniques and applications of calculus, including the ability to show that limits and derivatives do or do not exist.
2. Demonstrate a familiarity with the breadth of mathematics, including linear algebra and one area from modern algebra, basic analysis, and number theory.
3. Read and write mathematical proofs, producing arguments that are logically and syntactically correct.
4. Demonstrate an in-depth understanding of some area of mathematics.
5. (For students on the secondary teaching track only) Pass the licensure examination in mathematics

Key: I = introduces outcome; D = develops outcome; A = assesses mastery of outcome

Course(s)	Title/description	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6
	<i>Foundations</i>						
MA201-206	MathLabs		I	I			
MA231	Elements of Discrete Mathematics I		I	I		D	
MA232	Elements of Discrete Mathematics II		D	D		D	
MA233	Elements of Discrete Mathematics III		D	D		D	
MA251	Calculus I	I				D	
MA252	Calculus II	I				D	
MA253	Calculus III	I				D	
MA261	Calculus with Theory I	I		I			
MA262	Calculus with Theory II	I		DA			
MA263	Calculus with Theory III	I		DA			
MA341	Elementary Linear Algebra I		I				
MA342	Elementary Linear Algebra II		D				
MA307	Introduction to Proof			I			
	<i>Skill development</i>						
MA256	Introduction to Differential Equations	DA	D				
MA281	Several-Variable Calculus I	DA	D				

MA282	Several-Variable Calculus II	DA	D				
MA343	Statistical Methods and Models					D	
	<i>Core upper-division sequences</i>						
MA316-7	Fundamentals of Analysis I-II	DA	D	DA		D	
MA347-8	Fundamentals of Number Theory I-II		D	D		D	
MA391	Fundamentals of Abstract Algebra I		D	DA		D	
MA392	Fundamentals of Abstract Algebra II		D	DA		D	
MA394	Geometries from an Advanced Viewpoint I		D	DA	DA	D	
MA395	Geometries from an Advanced Viewpoint II		D	DA	DA	D	
MA444	Introduction to Abstract Algebra I		D	DA	I		
MA445	Introduction to Abstract Algebra II		D	DA	DA		
MA446	Introduction to Abstract Algebra III		D	DA	DA		
MA413	Introduction to Analysis I	DA	D	DA	I		
MA414	Introduction to Analysis II	DA	D	DA	DA		
MA415	Introduction to Analysis III	DA	D	DA	DA		
MA431	Introduction to Topology I		D	DA	I		
MA432	Introduction to Topology II		D	DA	DA		
MA433	Introduction to Differential Geometry	D	D	DA	I		
MA461	Introduction to Mathematical Methods of Statistics I		D	DA	I		
MA462	Introduction to Mathematical Methods of Statistics II		D	DA	DA		
	<i>Electives for Specialization</i>						
MA320	Theory of Differential Equations	DA	D	DA	D		
MA397	History and Applications of Calculus	DA	D	DA	D		
MA411	Functions of a Complex Variable I	DA	D	DA	I		
MA412	Functions of a Complex Variable II	DA	D	DA	DA		
MA420	Ordinary Differential Equations	DA	D	DA	I		
MA421	Partial Differential Equations: Fourier Analysis I	DA	D	DA	I		
MA422	Partial Differential Equations: Fourier Analysis II	DA	D	DA	DA		
MA441	Linear Algebra		D	DA	DA		
MA456	Networks and Combinatorics		D	D	I	D	
MA457	Discrete Dynamical Systems	D	D		I		
MA458	Introduction to Mathematical Cryptography		D		I		
MA463	Mathematical Methods of Regression Analysis and Analysis of Variance		D	DA	DA		
MA467	Stochastic Processes		D	DA	DA		