



**Masters of Science in Applied Mathematics (MMATH)**

**Major Electives**

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
	Elective	3		
	Elective	3		
	Elective	3		
Total		12		

**Core Requirements**

Code	Title	Credits	Prerequisites	Corequisites
MATH502	Algebra	3		
MATH505	Numerical linear algebra	3		
MATH510	Real Analysis	3		
MATH520	Functional Analysis	3		
MATH522	Topology	3		
MATH560	Modern Differential Geometry	3	MATH520	
MATH595	Special graduate skills	0		
MATH599	Thesis	6		
Total		24		

**Major Elective Courses**

Code	Title	Credits	Prerequisites	Corequisites
MATH500	Complex Analysis	3		
MATH506	Higher Linear Algebra	3		
MATH511	Analysis in Euclidean Spaces	3		
MATH515	Advanced Numerical Analysis	3	MATH505	
MATH516	Optimization Theory	3		
MATH518	Topics in Number Theory	3		
MATH524	Mathematical Fluid Dynamics I	3		
MATH525	Finite Element Methods	3	MATH540	
MATH530	Distribution Theory	3	MATH520	
MATH534	Mathematical Fluid Dynamics II	3	MATH524	
MATH536	Field Theory	3	MATH502	
MATH540	Partial Differential Equations	3	MATH520	
MATH542	Algebraic topology	3	MATH522	
MATH544	Computational Fluid Dynamics	3	MATH524	MATH534
MATH545	Ordinary Differential Equations	3		
MATH546	Lie Groups and Lie Algebra	3		
MATH550	Non-Euclidean Geometries	3		
MATH554	Continuum Mechanics	3		
MATH555	Dynamical Systems	3	MATH545	
MATH556	Matrix Theory	3		
MATH565	Applied Nonlinear Partial Differential Equations	3	MATH540	
MATH566	Graph theory	3		
MATH570	Riemannian Geometry	3	MATH560	
MATH571	Fractal Geometry	3	MATH522-MATH510	
MATH575	Differential Topology	3	MATH520-MATH522	
MATH576	Statistics	3		

MATH582	Mathematics Education	3		
MATH583	Topics in Mathematics	3		
MATH585	Topics in Applied Mathematics	3		
MATH586	Topics in Statistics	3		