

Course #	Course Title	General Learning Outcomes				Mathematical Sciences Learning Outcomes					Applied Math Program Learning Outcomes				Math Learning Outcomes					Statistics Learning Outcomes					Mathematics Secondary			
		Students should develop the ability to understand and write proofs.	Students should be able to effectively communicate mathematical and/or statistical ideas to diverse audiences, both orally and in writing.	Students should be effective problem solvers, using technology and connections between different areas of disciplinary knowledge as appropriate.	Students should demonstrate engagement in their discipline.	Developing disciplinary foundations for upper-level courses	Master theoretical foundations based on mathematical rigor through proofs	Use technology to solve computational problems	Apply mathematical theory to model and solve real-world problems	Provide clear and effective communication to diverse audiences	Master theoretical foundations based on mathematical rigor through proofs	Recognize and apply mathematical knowledge to other sciences and engineering	Use technology to solve computational problems, including simulation and visualization of mathematical models	Provide clear and effective written and oral communication to diverse audiences	The ability to understand and write mathematical proofs at the advanced undergraduate level	The ability to bring together concepts from various areas of mathematics to solve mathematical problems	The ability to effectively communicate mathematical ideas to their peers, both orally and in writing	The ability to use technology appropriately to investigate mathematical problems	Engagement in mathematics as a discipline	Understanding Basic Principles	Understanding Theoretical Underpinnings	Fluency with Statistical and Data Science Techniques	Data Management and Computation Using Technology	Ability to Communicate	Post Graduation Success	Utilize content knowledge from high level mathematics	Appropriate Activities and instructional Strategies	Use resources to design instruction
MAT 330	Mathematical Biology		x	x	x		x	x	x						x			x	x				x		x			
MAT 331	Numerical Analysis			x	x		x	x	x		x	x	x	x				x	x									
MAT 341	Computational Mathematics							x	x			x	x		x			x	x			x		x				
MAT 370	Topics in Mathematics	x		x	x		x	x	x		x	x		x					x							x		
STA 303	Design of Experiments			x	x			x	x											x	x	x	x		x			
STA 304	Sampling and Nonparametric Statistics			x	x			x	x											x	x	x			x			
STA 306	Applied Multivariate Analysis			x	x			x	x											x		x	x		x			
STA 307	Data Mining and Predictive Modeling			x	x			x	x			x	x	x						x	x	x	x		x			
STA 314	Statistical Quality Control			x	x			x	x											x	x	x	x		x			
STA 318	Operations Research			x	x		x								x					x	x	x			x			
MAT 403	Advanced Calculus	x		x	x		x				x			x	x	x			x									
MAT 405	Topology	x		x	x		x				x			x	x	x			x									
MAT 407	Projective Geometry	x		x	x		x				x			x	x	x			x									
MAT 426	Partial Differential Equations	x					x				x	x	x	x	x	x			x									
MAT 430	Seminar in Dynamical Systems	x					x				x	x	x	x	x	x			x									
MAT 440	Mathematical Logic	x		x	x		x				x				x				x									
MAT 451	Seminar in Algebra	x		x	x		x				x			x	x	x			x									
MAT 452	Seminar in Geometry and Topology	x		x	x		x				x			x	x	x			x									
MAT 453	Seminar in Analysis	x		x	x		x	x	x		x	x		x	x	x			x									
MAT 454	Seminar in Applied Mathematics	x		x	x		x	x	x		x	x	x	x	x	x			x	x								