

Mathematics/Data Science

	Students will be able to demonstrate facility with analytical and algebraic concepts	Students will be able to write proofs.	Students will be able to apply their mathematical knowledge and critical thinking to solve problems. (CC: CT)	Students will be able to use technology to solve problems.	Students will be able to speak about their work with precision, clarity and organization. (CC: OC)	Students will be able to write about their work with precision, clarity and organization. (CC: WC)	Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand. (CC: IL)	Students will collaborate effectively in teams.	Students will be able to understand and create arguments supported by quantitative evidence. (CC: QR)	Students will understand the professional, ethical and social issues and responsibilities with the implementation and use of mathematical models and technology.	Graduates will be prepared for careers that use mathematics in business, industry, government and the non-profit sector; graduate study in fields related to mathematics; and teaching mathematics and computer science at the secondary level.
CSC 1043 - Introduction to Computer Programming				I	I	I	I		I	I	
CSC 1043L - Introduction to Computer Programming Lab				I	I	I	I	I	I	I	
CSC 1054 - Objects and Elementary Data Structures				R	I	I	I		R	R	
CSC 1054L - Objects and Elementary Data Structures Lab				R	I	I	I	I	R	R	
CSC 2052 - Data Structures in C++				R	I	I	I		R	R	
CSC 2052L - Data Structures in C++ Lab				R	I	I	I	R	R	R	
CSC 3002 - UNIX and Python Scripting for Computational Science				R							
CSC 3011 - Machine Learning and Multivariate Modeling in R				R					M		
CSC 3021 - Computational Tools				R							
CSC 3031 - Data Visualization and Communication with R				R					M		
HON 4098 - Honors Project I			M		M	M	M		M		
HON 4099 - Honors Project II			M		M	M	M		M		
ISS 4014 - Data Base Systems and Web Integration			M	M				M	M		
MTH 1064 - Calculus I	I		I	I	I	I	I		I	I	
MTH 1064L - Calculus I Lab	I		I	I	I	I	I	I	I	I	
MTH 1074 - Calculus II	I		I	I	I	I	I		R	I	
MTH 1074L - Calculus II Lab	I		I	I	I	I	I	I	R	I	
MTH 2033 - Linear Algebra	R	I	R		R	R		R	R	R	
MTH 2074 - Calculus III	R		R	I	I	I	I	I	R	R	
MTH 2092 - Applied Project for Data Science			R	I	R	R	R		R		
MTH 3012 - Number Theory with Proofs		I	R		R	R		R		R	
MTH 3033 - Differential Equations			R							R	
MTH 3043 - Discrete Mathematics		I	R						R		
MTH 3052 - History of Mathematics	R	R	R		R	R	R	M			
MTH 3073 - Mathematical Modeling			M	M	R	R	R	M	M		
MTH 3083 - Mathematical Probability and Statistics			R	R				R	R	R	
MTH 4002 - Topics in Geometry	R	R	R								
MTH 4013 - Complex Analysis	M		M								
MTH 4024 - Real Analysis	M	M			M	M		M	M		
MTH 4044 - Abstract Algebra	M	M			M	M		M	M		
MTH 4053 - Advanced Applied Statistics			M	M	M	M		M	M		
MTH 4062 - Research in Data Science			M	M	M	M			M		
MTH 4071 - History of Mathematics Study Tour	R		R		R						
MTH 4072 - Internship in Data Science			M	M	M	M			M		
MTH 4081 - Senior Seminar in Mathematics					M	M	M			R	
MTH 4091 - Independent Study in Mathematics											
MTH 4092 - Special Topics in Mathematics			R		M	M		R			
MTH 4102 - Independent Research in Mathematics I			M	M	M	M	M		M		
MTH 4121 - Independent Research in Mathematics II			M	M	M	M	M		M		
MTH 4133 - Service Learning in Mathematics			M	M	M	M		M	M		
PHY 2044 - University Physics I			I								
PHY 2044L - University Physics I Lab			I		I	I		I	I		