

## Mathematics & Statistics Graduate Course Schedule

### Revised March 2024

F = Face-to-Face

O = Online

H= Hybrid

Course Name	Course Number	Odd Falls	Even Springs	Even Summers	Even Falls	Odd Springs	Odd Summers
Structure of Mathematical System	MATH 5001	O			O		
History of Mathematics	MATH 5010		F			F	
Methods, Materials, Strategies	MATH 5070	O					
Mathematics in a Technological World	MATH 5080			H			
Scientific Writing in Mathematics	MATH 5090				O		
Mathematical Concepts Development	MATH 5100		H			H	
Number Theory	MATH 5110	F			F		
Contemp Approach Prob Solv and Proof	MATH 5120		O				
Financial Mathematics	MATH 5130	FO			FO		
Financial Derivatives	MATH 5140	FO			FO		
Complex Analysis	MATH 5160	F					
Finite Math	MATH 5170			O			O
Short Term Actuarial Math	MATH 5180	F					
Fund of Actuarial Math	MATH 5190		F		F		
Topology	MATH 5210				F		

Risk and Interest Rate Models	MATH 5230	FO	FO		FO	FO	
Probability	MATH 5240	F		O	F		O
Stochastic Processes	MATH 5260	FO	FO		FO	FO	
Long Term Actuarial Math	MATH 5280				F		
Special Problems in Mathematics Education	MATH 5300	As Needed					
Machine Learning	MATH 5310	FO		FO	FO		FO
Advanced Machine Learning	MATH 5320		FO			FO	
Symbolic Computation	MATH 5321	FO	FO		FO	FO	
Special Problems	MATH 5330	As Needed					
Calculus from an Advanced Perspective	MATH 5350			H			
Mathematical Models	MATH 5450	F			F		
Applied Mathematics	MATH 5460	F			F		
Modern Algebra	MATH 5500		F				
Algebra from an Advanced Perspective	MATH 5520						H
Geometry from an Advanced Perspective	MATH 5640						H
Numerical Analysis	MATH 5670	FO			FO		
Real Analysis	MATH 5710					F	
Differential Equations and Stochastic Analysis	MATH 5800		FO			FO	

Computational Methods in Finance	MATH 5820	FO				FO		
Internship	MATH 5900	As Needed						
Capstone Project	MATH 5910	As Needed						
Topics in Mathematics	MATH 5920	As Needed						
Research in Mathematics	MATH 5940					O		
Probabilistic and Statistical Reasoning	STAT 5050	FO	FO			FO	FO	
Regression Analysis	STAT 5120		FO	O			FO	O
The Generalized Linear Model	STAT 5125		FO				FO	
Experimental Design	STAT 5130	FO				FO		
Time Series Analysis	STAT 5140	FO				FO		
Data Visualizaion and Exp	STAT 4170	F				F		
SAS Programming	STAT 5200		O	O			O	O
Probability	STAT 5240	F		O		F		O
Mathematical Statistics	STAT 5250		F					
Stochastic Processes	STAT 5260	FO				FO		
Nonparametric Statistics	STAT 5270	FO						
Predictive Analytics	STAT 5290		O				O	
Clinical Trials and Regulatory Requirements/ Guidelines	STAT 5300	O				O		

Internship	STAT 5900	<b>As Needed</b>					
Capstone Project	STAT 5910	<b>As Needed</b>					
Database Management Concepts	CSCI 5010	<b>FO</b>	<b>O</b>		<b>FO</b>	<b>O</b>	
Data Science in Python	CSCI 5015		<b>F</b>	<b>O</b>		<b>F</b>	<b>O</b>
Data Mining Applications	CSCI 5080	<b>O</b>		<b>O</b>	<b>O</b>		<b>O</b>
Data Mining Project	CSCI 5095		<b>O</b>			<b>O</b>	
Leadership for the Scientist Manager	LDSP 5100	<b>O</b>		<b>O</b>	<b>O</b>		<b>O</b>
Leadership and Communication	COMM 5110	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>