Mathematics Lower-Division Course Offerings

2023 - 2024 Academic Year

The following listing is only a tentative plan. It is SUBJECT to CHANGE at departmental discretion All courses require sufficient enrollment and are subject to cancellation at any time.

Course	Title	Fall	Winter	Spring
1A	Pre-Calculus I	F		
1B	Pre-Calculus II	F	W	
2A	Single Variable Calculus I	F	W	S
2B	Single Variable Calculus II	F	W	S
2D	Multivariable Calculus I	F	W	S
2E	Multivariable Calculus II	F	W	S
H2D	Honors Multivariable Calculus I			
H2E	Honors Multivariable Calculus II			
3A	Introduction To Linear Algebra	F	W	S
Н3А	Honors Introduction To Linear Algebra			
3D	Elementary Differential Equations	F	W	S
5A	Calculus For Life Sciences I	F	W	S
5B	Calculus For Life Sciences II	F	W	S
8	Explorations in Functions and Modeling			S
9	Introduction to Programming for Numerical Analysis	F	W	S
10	Introduction to Programming for Data Science	F	W	S
13	Introduction to Abstract Mathematics	F	W	S

Mathematics Upper-Division Course Offerings

2023 - 2024 Academic Year

Course	Title	Fall	Winter	Spring
105A/105LA	Numerical Analysis I	F		
105B/105LB	Numerical Analysis II		W	
107/107L	Numerical Differential Equations **Offered every other year**			
110A	Optimization I		W	
110B	Optimization II			S
112A	Intro Partial Differential Equations I **112C is offered every other year**	F		
112B	Intro Partial Differential Equations II **112C is offered every other year**		W	
112C	Intro Partial Differential Equations III **112C is offered every other year**			S
113A	Mathematical Modeling for Biology I	F		
113B	Mathematical Modeling for Biology II		W	
115	Math Modeling			S
117	Dynamical Systems **Offered every other year**		W	
118	Theory of Differential Equations	F		
120A	Intro To Abstract Algebra: Group Theory	F	W	S
120B	Intro To Abstract Algebra: Rings/Fields		W	S
120C	Intro To Abstract Algebra: Galois Theory **Offered every other year**			
H120A	Honors Grad Algebra I			
H120B	Honors Grad Algebra II			

121A	H120C	Honors Grad Algebra III			
130A	121A	Linear Algebra I	F	W	S
130B Probability ii W S 130C Stochastic Processes S 134A Fixed Income F W 134B Mathematics of Financial Derivatives F W 134C Mathematical Models for Finance W S 140A Elementary Analysis I F W S 140B Elementary Analysis II F W S 140C Analysis In Several Variables F W 1410B Honors Grad Analysis II F W 1410B Honors Grad Analysis III W S 141 Intro To Topology S S 147 Complex Analysis F W S 150 Intro To Math Logic F W S 161 Modern Geometry S S W 162A Intro To Differential Geometry I**162B Offered every other year** W W 162B Intro To Cryptology I**Offered in summer only** W Intro To Cryptology I**O	121B	Linear Algebra II	F	W	S
130C Stochastic Processes S S 134A Fixed Income F W S S S S S S S S S	130A	Probability i	F	W	S
134A	130B	Probability ii		W	S
134B Mathematics of Financial Derivatives	130C	Stochastic Processes			S
134C Mathematical Models for Finance W S 140A				W	S
Table Feat	134B	Mathematics of Financial Derivatives	F	W	
Table Elementary Analysis II	134C	Mathematical Models for Finance		W	S
140C Analysis In Several Variables S H140A Honors Grad Analysis I F H140B Honors Grad Analysis II W H140C Honors Grad Analysis III S 141 Intro To Topology S 147 Complex Analysis F W 150 Intro To Math Logic F 161 Modern Geometry S 162A Intro To Differential Geometry I **162B Offered every other year** W 162B Intro To Differential Geometry II **162B Offered every other year** W 173A Intro To Cryptology I **Offered in summer only** T 175 Combinatorics W 176 Mathematics of Finance W 180A Intro To Number Theory I S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F			F	W	
H140A Honors Grad Analysis I H140B Honors Grad Analysis II H140C Honors Grad Analysis III S Intro To Topology S Complex Analysis F W S Intro To Math Logic F Intro To Differential Geometry I **162B Offered every other year** W I62B Intro To Differential Geometry II **162B Offered every other year** I73A Intro To Cryptology I **Offered in summer only** I73B Intro To Cryptology II **Offered in summer only** I75 Combinatorics I76 Mathematics of Finance W I80A Intro To Number Theory I I80B Intro To Number Theory II S I84 & 184L History Of Math & History Of Math Lab S I92** Studies in the Learning and Teaching of Secondary Mathematics F W W INDICATE W INDICATE W S INTRO TO Number Theory II S S Studies in the Learning and Teaching of Secondary Mathematics F W S I94 ** Problem Solving		Elementary Analysis II	F	W	_
H140B Honors Grad Analysis II W H140C Honors Grad Analysis III S 141 Intro To Topology S 147 Complex Analysis F W S 150 Intro To Math Logic F 161 Modern Geometry S 162A Intro To Differential Geometry I **162B Offered every other year** W 162B Intro To Differential Geometry II **162B Offered every other year** 173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving					S
H140C Honors Grad Analysis III S 141 Intro To Topology S 147 Complex Analysis F W S 150 Intro To Math Logic F 161 Modern Geometry S 162A Intro To Differential Geometry I **162B Offered every other year** W 162B Intro To Differential Geometry II **162B Offered every other year** W 173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving		Honors Grad Analysis I	F		
141 Intro To Topology S 147 Complex Analysis F W S 150 Intro To Math Logic F 161 Modern Geometry S 162A Intro To Differential Geometry I **162B Offered every other year** W 162B Intro To Differential Geometry II **162B Offered every other year** W 173A Intro To Cryptology I **Offered in summer only** Intro To Cryptology II **Offered in summer only** 175 Combinatorics W 176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F	H140B	Honors Grad Analysis II		W	
147 Complex Analysis F W S 150 Intro To Math Logic F 161 Modern Geometry 162A Intro To Differential Geometry I **162B Offered every other year** W 162B Intro To Differential Geometry II **162B Offered every other year** 173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving		Honors Grad Analysis III			
150					
161 Modern Geometry 162A Intro To Differential Geometry I **162B Offered every other year** 162B Intro To Differential Geometry II **162B Offered every other year** 173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance 180A Intro To Number Theory I 180B Intro To Number Theory II 180B Intro To Number Theory II 1804 ** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving S			F	W	S
Intro To Differential Geometry I **162B Offered every other year** W	150	Intro To Math Logic	F		
162B Intro To Differential Geometry II **162B Offered every other year** 173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F		,			S
173A Intro To Cryptology I **Offered in summer only** 173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F				W	
173B Intro To Cryptology II **Offered in summer only** 175 Combinatorics 176 Mathematics of Finance 180A Intro To Number Theory I 180B Intro To Number Theory II 184 & 184L History Of Math & History Of Math Lab 192** Studies in the Learning and Teaching of Secondary Mathematics F 194 ** Problem Solving					
175CombinatoricsW176Mathematics of FinanceW180AIntro To Number Theory IW180BIntro To Number Theory IIS184 & 184LHistory Of Math & History Of Math LabS192**Studies in the Learning and Teaching of Secondary MathematicsFW194 **Problem SolvingF					
176 Mathematics of Finance W 180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F					
180A Intro To Number Theory I W 180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W 194 ** Problem Solving F					
180B Intro To Number Theory II S 184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving F				W	
184 & 184L History Of Math & History Of Math Lab S 192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving F				W	
192** Studies in the Learning and Teaching of Secondary Mathematics F W S 194 ** Problem Solving F					
194 ** Problem Solving F					
o				W	S
195W Mathematical Writing F			F		
	195W	Mathematical Writing	F		

^{** 2} units; can be repeated twice.

Department of Mathematics Course Descriptions

All courses require sufficient enrollment and are subject to cancellation at any time.