

Mathematics

Major Courses

2022 - 2026 Catalog Requirements

To be used only for students completing quarter requirements in the 2026-27 year.

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Do you need to fulfill a quarter course?
Check the semester equivalency!

MAJOR COURSES	QUARTER COURSE		SEMESTER COURSE	NOTES
	MATH 141 Calculus I	➔	MATH 1261 Calculus I	
	MATH 142 Calculus II	✗	DISCONTINUED	The department will offer a Bridge Math 142 during Fall 2026 and a Cap 143 during Spring 2027 for students who have only completed Math 141 on quarters.
	MATH 143 Calculus III	➔	MATH 1262 Calculus II	The department will offer a Bridge Math 143 during Fall 2026 for students who have only completed both Math 141 and 142 on quarters.
	MATH 202 Orientation to Mathematics Major	➔	MATH 2001 Mathematics Orientation	
	MATH 206 Linear Algebra I	➔	MATH 1151 Linear Algebra	
	MATH 241 Calculus IV	➔	MATH 2263 Calculus III	
	MATH 242 Differential Equations I	➔	MATH 2343 Differential Equations	
	MATH 248 Methods of Proof in Mathematics	➔	MATH 2031 Transition to Advanced Mathematics	
	MATH 306 Linear Algebra II	➔	MATH 3152 Advanced Linear Algebra	
	MATH 334 Combinational Math	➔	MATH 3051 Combinatorics I	
	MATH 412 Introduction to Analysis I	➔	MATH 4264 Real Analysis I	
	MATH 481 Abstract Algebra I	➔	MATH 4201 Abstract Algebra I	See endnotes
	CSC/CPE 101 Fundamentals of Computer Science	➔	CSC 1001 Fundamentals of Computer Science	
	PHYS 141 General Physics I	➔	PHYS 1141 General Physics I	
	PHYS 142 General Physics II OR PHYS 143 General Physics III	➔	PHYS 1143 General Physics II	
	Select from the following: MATH 459 Senior Project Seminar MATH 460 Senior Project Applied Seminar MATH 461 Senior Project I MATH 462 Senior Project II	➔	Select from the following: MATH 4463 Senior Project Seminar MATH 4464 Senior Project Applied Seminar MATH 4461 Senior Project I MATH 4462 Senior Project II	



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Math Concentration

General Curriculum

2022 - 2026 Catalog Requirements

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CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	STAT 301 Statistics I OR STAT 305 Introduction to Probability & Simulation Choose 3 from the following tracks (one from the first 4)	STAT 1510 Statistics I OR STAT 2610 Introduction to Probability & Simulation Choose 3 from the following tracks (one from the first 4)	
	MATH 413 Introduction to Analysis II AND MATH 414 Introduction to Analysis III	DISCONTINUED AND MATH 4265 Real Analysis II	See endnote 1
	MATH 482 Abstract Algebra II AND MATH 483 Abstract Algebra III OR MATH 406 Linear Algebra III	DISCONTINUED AND MATH 4202 Abstract Algebra II	See endnotes
	MATH 406 Linear Algebra III AND MATH 413 Introduction to Analysis II OR MATH 440 Topology I	DISCONTINUED AND DISCONTINUED OR MATH 4541 Introduction to Topology	See endnote 1
	MATH 482 Abstract Algebra II AND MATH 413 Introduction to Analysis II OR MATH 440 Topology I	MATH 4202 Abstract Algebra II AND MATH 4265 Real Analysis II OR MATH 4541 Introduction to Topology	See endnotes 1 & 2
	MATH 304 Vector Analysis AND MATH 404 Introduction to Differential Geometry	DISCONTINUED AND MATH 4531 Differential Geometry	Students can only complete if they have taken MATH 304 before conversion
	MATH 335 Graph Theory AND MATH 435 Discrete Mathematics with Applications I	MATH 3055 Graph Theory AND MATH 4052 Combinatorics II	
	MATH 344 Linear Analysis II AND MATH 416 Differential Equations II OR MATH 418 Partial Differential Equations	MATH 3351 Diff. Equations & Bound. Value Prob. AND MATH 4342 Nonlinear Dynamical Systems OR MATH 4352 Partial Differential Equations	
	MATH 341 Theory of Numbers AND MATH 437 Game Theory	MATH 3111 Number Theory AND MATH 4911 Game Theory	
	MATH 410 Complex Analysis I AND MATH 411 Complex Analysis II	MATH 3301 Complex Analysis AND DISCONTINUED	



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Mathematics Concentration

General Curriculum

2022 - 2026 Catalog Requirements

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GENERAL CURRICULUM CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	MATH 442 Euclidean Geometry AND MATH 443 Modern Geometries	MATH 3511 Euclidean Geometry AND MATH 4512 Non-Euclidean Geometry	
	MATH 451 Numerical Analysis I AND MATH 452 Numerical Analysis II OR MATH 453 Numerical Optimization	MATH 3651 Introduction to Numerical Analysis AND MATH 4652 Numerical Differential Equations OR MATH 4653 Numerical Optimization	
	APPROVED ELECTIVES Select from the following: CSC/CPE 202 CSC/CPE 203 CSC 349 CSC 365	APPROVED ELECTIVES Select from the following: CSC/CPE 2001 DISCONTINUED CSC 3449 CSC 3665	
	MATH 304 MATH 335 MATH 341 MATH 344 MATH 350 MATH 404	DISCONTINUED MATH 3055 MATH 3111 MATH 3351 MATH 3681 MATH 4531	
	MATH 406 MATH 410 MATH 411 MATH 413 MATH 414 MATH 416 MATH 418 MATH 419	DISCONTINUED MATH 3301 DISCONTINUED DISCONTINUED MATH 4265 MATH 4342 MATH 4352 MATH 3011	Math 413 see endnote 2



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Mathematics Concentration

General Curriculum

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a quarter course?
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GENERAL CURRICULUM CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	MATH 435	MATH 4052	
	MATH 437	MATH 4911	
	MATH 440	MATH 4541	
	MATH 442	MATH 3511	
	MATH 443	MATH 4512	
	MATH 451	MATH 3651	
	MATH 452	MATH 4652	
	MATH 453	MATH 4653	
	MATH 459	MATH 4463	
	MATH 460	MATH 4464	
	MATH 461	MATH 4461	
	MATH 470	MATH 4470	
	MATH 475	MATH 4981	
	MATH 476	MATH 4982	
	MATH 482	DISCONTINUED	See endnote 2 for Math 482
	MATH 483	MATH 4202	
	MATH 531	DISCONTINUED	
	MATH 541	MATH 5542	
	PHYS 142	DISCONTINUED	
	PHYS 143	PHYS 1143	
	PHYS 211	PHYS 2211	
	PHYS 301	PHYS 3301	
	PHYS 305	PHYS 3305	
	PHYS 323	PHYS 3323	
	PHYS 405	PHYS 4405	
	PHYS 408	PHYS 4408	
	STAT 301	STAT 1510	
	STAT 302	STAT 3520	
	STAT 305	STAT 2610	
	STAT 425	STAT 4610	
	STAT 426	STAT 4620	
	STAT 427	DISCONTINUED	



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Mathematics Concentration

Mathematics Teaching Concentration

2022 - 2026 Catalog Requirements

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Do you need to fulfill
a quarter course?
Check the semester
equivalency!

MATHEMATICS TEACHING CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	MATH 300 Technology in Mathematics Education	MATH 3971 Technology in Mathematics Education	
	MATH 341 Theory of Numbers	MATH 3111 Number Theory	
	MATH 419 Introduction to the History of Mathematics	MATH 3011 History of Mathematics	
	MATH 423 Advanced Mathematics for Teaching	MATH 4972 Advanced Mathematics for Teaching	
	MATH 442 Euclidean Geometry	MATH 3511 Euclidean Geometry	
	MATH 443 Modern Geometries	MATH 4512 Non-Euclidean Geometry	
	MATH 482 Abstract Algebra II	DISCONTINUED	See endnote 2
	SCM 300 Early Field Experience	SCM 3300 Early Field Experience	
	STAT 301 Statistics I	STAT 1510 Statistics I	
	STAT 302 Statistics II OR STAT 305 Intro to Probability and Simulation	STAT 3520 Statistics II OR STAT 2610 Intro to Probability and Simulation	
	Select from the following: CSC/CPE 202 Data Structures STAT 301 Statistics I MATH 304 Vector Analysis MATH 335 Graph Theory MATH 344 Linear Analysis II MATH 350 Mathematical Software MATH 406 Linear Algebra III MATH 410 Complex Analysis I MATH 413 Intro to Analysis II MATH 416 Differential Equations II MATH 435 Discrete Mathematics with Applications I MATH 437 Game Theory MATH 440 Topology I MATH 451 Numerical Analysis I MATH 459 Senior Project Seminar	Select from the following: CSC/CPE 2001 Data Structures STAT 301 Statistics I MATH 304 DISCONTINUED MATH 3055 Graph Theory MATH 3351 Diff. Equations & Boun. Value Problems MATH 3681 Mathematical Programming MATH 406 DISCONTINUED MATH 3301 Complex Analysis MATH 413 DISCONTINUED MATH 4342 Nonlinear Dynamical Systems MATH 4052 Combinatorics II MATH 4911 Game Theory MATH 4541 Intro to Topology MATH 3651 Intro to Numerical Analysis MATH 4463 Senior Project Seminar	Math 413 see endnote 2



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Mathematics Concentration

Mathematics Teaching Concentration

2022 - 2026 Catalog Requirements



	QUARTER COURSE	SEMESTER COURSE	NOTES
MATHEMATICS TEACHING CONCENTRATION	Select from the following:	Select from the following:	
	MATH 460 Senior Project Applied Seminar	MATH 4464 Senior Project Applied Seminar	
	MATH 461 Senior Project I	MATH 4461 Senior Project I	
	MATH 462 Senior Project II	MATH 4462 Senior Project II	
	MATH 470 Selected Advanced Topics	MATH 4470 Special Advanced Topics	
	MATH 483 Abstract Algebra III	MATH 4202 Abstract Algebra II	Math 4202- see endnote 4
	PHYS 142 General Physics II	PHYS 142 DISCONTINUED	
	PHYS 143 General Physics III	PHYS 1143 General Physics III	
	PHYS 305 Classical Mechanics I	PHYS 3305 Classical Mechanics I	
	STAT 425 Probability Theory	STAT 4610 Probability Theory	



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Mathematics Concentration

Pure Mathematics

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Do you need to fulfill a quarter course?
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PURE MATHEMATICS CONCENTRATION	QUARTER COURSE		SEMESTER COURSE	NOTES
	MATH 410 Complex Analysis I	➔	MATH 3301 Complex Analysis	
	MATH 413 Introduction to Analysis II	✗	DISCONTINUED	See endnote 1
	MATH 440 Topology I	➔	MATH 4541 Introduction to Topology	
	MATH 482 Abstract Algebra II	✗	DISCONTINUED	See endnote 2
	Select from the following: MATH 406 Linear Algebra III MATH 411 Complex Analysis II MATH 414 Introduction to Analysis III MATH 435 Discrete Mathematics with Applications I MATH 483 Abstract Algebra III	➔	Select from the following: DISCONTINUED DISCONTINUED MATH 4265 Real Analysis II MATH 4052 Combinatorics II MATH 4202 Abstract Algebra II	MATH 4265 see endnote 3
	Select from the following: MATH 350 Mathematical Software STAT 301 Statistics I STAT 305 Intro to Probability and Simulation	➔	Select from the following: MATH 3681 Mathematical Programming STAT 1510 Statistics I STAT 2610 Intro to Probability and Simulation	
	Select from the following: MATH 304 Vector Analysis MATH 335 Graph Theory MATH 341 Theory of Numbers MATH 344 Linear Analysis II MATH 350 Mathematical Software MATH 404 Intro to Differential Geometry MATH 406 Linear Algebra III MATH 411 Complex Analysis II MATH 414 Introduction to Analysis III MATH 416 Differential Equations II MATH 418 Partial Differential Equations MATH 435 Discrete Mathematics with Applications I MATH 437 Game Theory MATH 451 Numerical Analysis I MATH 452 Numerical Analysis II MATH 453 Numerical Optimization MATH 459/460/461/462 Senior Project MATH 470 Selected Advanced Topics MATH 475 Advanced Topics in Mathematics MATH 483 Abstract Algebra III MATH 531 Discrete Mathematics with Applications II MATH 541 Topology II STAT 425 Probability Theory	➔	Select from the following: DISCONTINUED MATH 3055 Graph Theory MATH 3111 Number Theory MATH 3351 Diff. Equations & Bound. Value Prob. MATH 3681 Mathematical Programming MATH 4531 Differential Geometry DISCONTINUED DISCONTINUED MATH 4265 Real Analysis II MATH 4342 Nonlinear Dynamical Systems MATH 4352 Partial Differential Equations MATH 4052 Combinatorics II MATH 4911 Game Theory MATH 3651 Intro to Numerical Analysis MATH 4652 Numerical Differential Equations MATH 4653 Numerical Optimization MATH 459/460/461/462 Senior Project MATH 4470 Special Advanced Topics MATH 4981 Advanced Topics in Mathematics MATH 4202 Abstract Algebra II DISCONTINUED MATH 5542 Topology STAT 4610 Probability Theory	Math 4265 See endnote 3



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Mathematics Concentration

Applied Mathematics

2022 - 2026 Catalog Requirements

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Do you need to fulfill a quarter course?
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APPLIED MATHEMATICS CONCENTRATION	QUARTER COURSE		SEMESTER COURSE	NOTES
	MATH 304 Vector Analysis	X	DISCONTINUED	
	MATH 344 Linear Analysis II	→	MATH 3351 Differential Equations & Boundary Value Problems	
	MATH 350 Mathematical Software OR CSC/CPE 202 Data Structures	→	MATH 3681 Mathematical Programming OR CSC/CPE 2001 Data Structures	
	MATH 410 Complex Analysis I	→	MATH 3301 Complex Analysis	
	MATH 413 Introduction to Analysis II	X	DISCONTINUED	See endnote 1
	MATH 416 Differential Equations II OR MATH 418 Partial Differential Equations	→	MATH 4342 Nonlinear Dynamical Systems OR MATH 4352 Partial Differential Equations	
	MATH 451 Numerical Analysis I	→	MATH 3651 Intro to Numerical Analysis	
	STAT 301 Statistics I OR STAT 305 Introduction to Probability and Simulation	→	STAT 1510 Statistics I OR STAT 2610 Introduction to Probability & Simulation	
	Select courses from the following tracks: TRACK A: MATH 335 MATH 341 MATH 406 MATH 411 MATH 414 MATH 416 MATH 418 MATH 435 MATH 437 MATH 452 MATH 453 MATH 460 MATH 461 MATH 462 MATH 476 MATH 482 MATH 483	→	Select courses from the following tracks: TRACK A: MATH 3055 MATH 3111 DISCONTINUED DISCONTINUED MATH 4265 MATH 4342 MATH 4352 MATH 4052 MATH 4911 MATH 4652 MATH 4653 MATH 4464 MATH 4461 MATH 4462 MATH 4982 DISCONTINUED MATH 4202	See endnote 2 for Math 482



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Mathematics Concentration

Applied Mathematics

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Do you need to fulfill a quarter course?
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QUARTER COURSE		SEMESTER COURSE	NOTES
APPLIED MATHEMATICS CONCENTRATION	TRACK B: DATA 301 DATA 401 MATH 335 DATA 403 MATH 453 MATH 435	TRACK B: DATA 3301 DATA 4401 MATH 3055 DISCONTINUED MATH 4653 MATH 4052	
	APPROVED ELECTIVES Choose 3 courses from one of the following categories:	APPROVED ELECTIVES Choose 3 courses from one of the following categories:	
	PHYSICS ASTR 301 ASTR 302 ASTR 326 PHYS 142 PHYS 143 PHYS 211 PHYS 301 PHYS 305 PHYS 306 PHYS 313 PHYS 314 PHYS 318 PHYS 323 PHYS 345 PHYS 405 PHYS 408 PHYS 425 PHYS 428	PHYSICS ASTR 3301 DISCONTINUED ASTR 3302 DISCONTINUED PHYS 1143 PHYS 2111 PHYS 3301 PHYS 3305 PHYS 3306 DISCONTINUED PHYS 3314 DISCONTINUED PHYS 3323 PHYS 3345 PHYS 4405 PHYS 4408 PHYS 4425 PHYS 4428	
	STATISTICS STAT 302 STAT 305 STAT 323 STAT 330 STAT 331 STAT 334 STAT 416 STAT 417 STAT 418 STAT 419 STAT 421 STAT 423 STAT 425 STAT 426 STAT 427	STATISTICS STAT 3520 STAT 2610 STAT 3540 STAT 3800 STAT 1810 STAT 3530 STAT 4760 STAT 4770 STAT 4780 STAT 4790 DISCONTINUED DISCONTINUED STAT 4610 STAT 4620 DISCONTINUED	



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Mathematics Concentration

Applied Mathematics

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Do you need to fulfill a quarter course?
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APPLIED MATHEMATICS CONCENTRATION		QUARTER COURSE	SEMESTER COURSE	NOTES
		APPROVED ELECTIVES Choose 3 courses from one of the following categories:	APPROVED ELECTIVES Choose 3 courses from one of the following categories:	
		COMPUTER SCIENCE CSC 202 CSC 203 CSC 225 CPE 345 CSC 349 CSC 357 CSC 365 CSC 448	COMPUTER SCIENCE CSC 2001 DISCONTINUED CSC 2300 CPE 3345 CSC 3449 CSC 2050 CSC 3665 CSC 4448	
		MECHANICAL ENGINEERING ME 211 ME 302 ME 341 ME 212 ME 326	MECHANICAL ENGINEERING ME 2210 DISCONTINUED ME 3341 ME 2212 ME 3313	
		ECONOMICS ECON 311 ECON 312 ECON 313 ECON 403	ECONOMICS ECON 3030 ECON 3050 ECON 3040 ECON 4031	

1. Math 4264 and 4265 can be taken for credit in Math 412, 413, and 414
2. Math 4201 and 4202 can be taken for credit in Math 481, 482, and 483
3. Math 4265 is only open to students who have not taken 412 under quarters. Math 4264 and 4265 can, however, be taken for credit in Math 412, 413, and 414.
4. Math 4202 is only open to students who have not taken 481 under quarters. Math 4201 and 4202 can, however, be taken for credit in Math 481, 482, and 483



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