Mathematical Sciences Minors

UNIVERSITY of WISCONSIN UWMILWAUKEE

Stand out from the crowd, minor in math!

NEW—Calculus not required.

Mathematics is the international language of science and technology. Much of the subject matter in engineering and the natural sciences, as well as some social sciences such as economics, is presented in mathematical terms. Mathematical and statistical techniques are vital in fields that usually are not considered mathematical, such as biology, psychology, and political science. Some students are attracted to mathematics for its own sake, for the beauty, discipline, logic, and problem-solving challenges. Other students pursue mathematics in order to achieve deeper understanding in their own areas of study.

MINOR REQUIREMENTS

Students minoring in mathematics must complete 18 credits in Mathematical Sciences courses numbered 200 and above, of which 9 credits must be 300-level or above, and taken at UWM.This minor is available as a post-baccalaureate option for students who have graduated. The college requires that students attain at least a 2.000 GPA on all credits in the minor attempted at UWM and on all minor credits attempted, including any transfer work.

COURSES RECOMMENDED FOR STUDENTS MAJORING IN:

HUMANITIES, ARTS, OR EDUCATION:

		PREREQUISITE
Start With:	Math 240: Matrices and Applications	Math 2xx or Placement level 40
	Math 341: Intro to Language & Practice of Math.	Math Placement level 40
choose two to three of:	Math 531: Modern Algebra	Math 341
	Math 535: Linear Algebra	Math 341+234/240
	Math 511: Symbolic Logic	6 CR in 300 Level Math
	3 cr from: Math 490, 591, 599, 690, 699 Topics, Indep. Study, Capstone	Varies
And one to two of:	Math 205: Intro Finite Math	Math Placement level 30
	Math 275: Problem Solving/Critical Thinking For Elem. Ed. Majors	Math 175
	Math 276: Algebraic Structures for Elem. Ed. Majors	Math 175
	Math 277: Geometry for Elem. Ed. Majors	Math 176
	Math 278: Discrete Probability & Statistics for Elem. Ed. Majors	Math 176
	MthStat 215: Elementary Statistical Analysis	QLA is satisfied
	MthStat 216: Intro to Statistical Computing and Data Science	MthStat 215 or equiv.

HEALTH SCIENCES, BUSINESS, SOCIAL SCIENCES OR EDUCATION:

		PREREQUISITE
Start With:	Math 211: Survey in Calculus	Math placement level 30
	Math 240: Matrices and Applications	Math 2xx or placement level 40
Choose one course from:	MthStat 215: Elementary Statistical Analysis*	QLA is Satisfied
	*Note: Bus adm 210, Econ 210 may be substituted	
	Math 205: Intro Finite Math	Math Placement level 30
	Math 275: Problem Solving/Critical Thinking For Elem. Ed. Majors	Math 175
	Math 276: Algebraic Structures for Elem. Ed. Majors	Math 175
	Math 277: Geometry for Elem. Ed. Majors	Math 176
	Math 278: Discrete Probability & Statistics for Elem. Ed. Majors	Math 176
	Math 290: Topics in Mathematics	QLA is satisfied
And three courses from:	Math 305: Intro to Mathematical & Computational Modeling	Math 211+2xx
	Math 313: Linear Programming & Optimization	Math 240
	Math 315: Mathematical Programming & Optimization	Math 211+240
	Math 405: Mathematical Models and Applications	Math 211+240
	Math 417: Computational Linear Algebra	Math 240
	3 cr from: Math 490, 591, 599, 690, 699 Topics, Indep. Study, Capstone	Varies

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ENGINEERING OR A NATURAL SCIENCE:

		PREREQUISITE
START WITH:	Math 213 or 231: First Semester Calculus	Math Placement Level 40
	Math 232: Calculus and Analytic Geometry II	Math 213 or 231
	Note: 221 + 222 is equivalent to 231+232+233	
THEN, CHOOSE AT LEAST ONE:	Math 233: Calculus and Analytic Geometry III	Math 232
	Math 234: Linear Algebra & Differential Equations	Math 232
	Math 240: Matrices and Applications	Math Placement level 40 or math 2xx
	Math 341: Intro to Language & Practice of Math.	Math Placement Level 40

		PREREQUISITE
FINISH BY CHOOSING ANY 3 OF THESE COURSES:	***INTRODUCTION TO APPLIED MATH***	
	Math 305: Intro to Mathematical & Computational Modeling	Math 213/231 or 211+2xx
	ActSci 391: Investment Mathematics I	Math 232
	Math 431: Modern Algebra w/ Applications	Math 232
	APPLIED STATISTICS EMPHASIS	
	Math 321: Vector Calculus	Math 233
	Math 423: Complex Analysis	Math 233
	MthStat 361 & 362: Intro to Math. Stats I & II	Math 233
	MthStat 563: Regression Analysis	Mthstat 362
	MthStat 564: Time Series Analysis	Mthstat 362
	MthStat 565: Nonparametric Statistics	Mthstat 362
	MthStat 566: Computational Statistics	Mthstat 362
(CHECK PREREQS AND CONTENT TO DECIDE WHAT TO TAKE!)	***APPLIED COMPUTATIONAL MATH EMPHASIS***	
	Math 313: Linear Programming & Optimization	Math 234 or 240
	Math 320: Intro to Differential Equations	Math 234 or 240+232
	Math 405: Mathematical Modeling & Applications	Math 211/213 /231 + 234/240
	Math 417: Computational Linear Algebra	Math 234 or 240
	APPLIED/COMPUTATIONAL/STATS EMPHASIS	
	Math 315: Math. Programming & Optimization	Math 211/233 +234/240
	Math 322: Partial Differential Equations	Math 320+233
	Math 413: Intro to Numerical Analysis	Math 233+234
	Math 415: Intro to Scientific Computing	Math 233+234
	MthStat 562: Design of Experiments	Mthstat 362 + Math 234/240
	MthStat 568: Multivariate Statistical Analysis	Mthstat 362 + Math 234/240
	PURE MATH EMPHASIS	
	Math 345: Mathematics from a Historical Perspective	Math 232
	Math 451: Axiomatic Geometry	Math 341+232
	Math 453: Transformations in Geometry	Math 341+232
	Math 521: Advanced Calculus I	Math 341+232
	Math 531: Modern Algebra	Math 341
	Math 537: Number Theory	Math 341+232
	Math 535: Linear Algebra	Math 341+234/240
		Math 341+233

INTERESTED?

Have questions?
Need advice?
Ready to declare?
Contact Math Sciences...

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