

MATHEMATICS MINOR

College of Arts and Sciences

Program Website (<http://math.cornell.edu>)

Program Description

The mathematics minor is available to undergraduates majoring in other disciplines across the university who have an interest in studying mathematics. Students planning a minor in mathematics may seek advice on course selection from the director of undergraduate studies. (<http://math.cornell.edu/faculty/>) Information is also available at math.cornell.edu/minor (<https://math.cornell.edu/minor/>), including how to apply for the minor.

Student Grade Option

Courses must be taken for a letter grade in order to count toward admission to the math minor or to satisfy any math minor requirement.

Transfer Credit

Courses taken at another institution may be used to satisfy the math minor prerequisites and to replace at most one course toward the minor requirements. These courses must be approved for transfer credit and appear on the Cornell transcript with Cornell course equivalents.

Visit the Math Department web site for more information about transferring credit from another institution (<http://math.cornell.edu/transfer-credit/>).

Prerequisites

Students are admitted to the minor after successfully completing a semester of linear algebra — MATH 2210 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt2351), MATH 2230 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt4040), or MATH 2940 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt400) with a grade of B– or better — and a semester of multivariable calculus — MATH 2220 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt5472), MATH 2240 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt3083), or MATH 1920 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt9049) with a grade of B– or better. The department recommends MATH 2210 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt730)—MATH 2220 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt3495) or MATH 2230 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt9725)—MATH 2240 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt7600). While it is not recommended for students planning a math minor, MATH 2310 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt5699) with a grade of B+ or better may be accepted as a substitute for MATH 2210 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt1525).

Credit for MATH 1920 (https://courses.cornell.edu/preview_program.php?catoid=60&poid=30394#tt7658) may be obtained

by passing a placement exam (<http://math.cornell.edu/ap/>) during orientation; however, a score equivalent to a B- or better is required to satisfy the prerequisite for the math minor. Students who score below a B- and wish to join the minor may not attempt the exam a second time but should instead enroll in a multivariable calculus course.

Students who receive below the minimum grade in one of these prerequisite courses should contact the undergraduate coordinator (mmk8@cornell.edu) immediately.

Minor Requirements

Students must complete four 3000- or 4000-level MATH courses. Only courses with a MATH prefix or cross-listed as such are allowed; no substitutions. At least one course must be in algebra and one in analysis. At least one of the four courses must be at the 4000-level or above. A course may be counted toward the minor only if it is taken for a letter grade and a grade of C– or better is received for the course.

Code	Title	Hours
Algebra		
Select one of the following eligible courses:		
MATH 3320	Introduction to Number Theory	4
MATH 3340	Abstract Algebra	4
MATH 3360	Applicable Algebra	4
MATH 4310	Linear Algebra	4
MATH 4330	Honors Linear Algebra	4
MATH 4340	Honors Introduction to Algebra	4
MATH 4370	Computational Algebra	3
MATH 4500	Matrix Groups	4
Analysis		
Select one of the following eligible courses:		
MATH 3110	Introduction to Analysis	4
MATH 3210	Manifolds and Differential Forms	4
MATH 3270	Introduction to Ordinary Differential Equations	3
MATH 4130	Honors Introduction to Analysis I	4
MATH 4140	Honors Introduction to Analysis II	4
MATH 4180	Complex Analysis	4
MATH 4200	Differential Equations and Dynamical Systems	3
MATH 4210	Nonlinear Dynamics and Chaos	3
MATH 4220	Applied Complex Analysis	3
MATH 4250	Numerical Analysis and Differential Equations	4
MATH 4260	Numerical Analysis: Linear and Nonlinear Problems	4
MATH 4280	Introduction to Partial Differential Equations	4
Additional MATH courses numbered 3000 or above		2

Courses