

# MATHEMATICS SECOND MAJOR OR MINOR FOR MMSS STUDENTS

Students must also complete the Undergraduate Registration Requirement (<https://catalogs.northwestern.edu/undergraduate/requirements-policies/undergraduate-registration-requirement/>) and the degree requirements of their home school.

**NOTE:** This Catalog describes Weinberg College BA requirements that pertain to students who matriculated at Northwestern after spring quarter 2023. Refer to the Archives (<https://catalogs.northwestern.edu/archives/>) if you are following BA requirements described in the 2018-2019 through 2022-2023 editions.

## Second Major in Mathematics for MMSS Majors

A student who has completed all of the requirements for an adjunct major in Mathematical Methods in the Social Sciences (MMSS) (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/mathematical-methods-social-sciences/>) but *not* a major in a social science must satisfy the ordinary requirements for the mathematics major (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/mathematics/mathematics-major/>) to earn an additional major in mathematics. Students may not count any 300 level mathematics course toward both the MMSS adjunct major and the mathematics major.

## Third Major in Mathematics for MMSS Majors

A student who has completed all of the requirements for an adjunct major in Mathematical Methods in the Social Sciences (MMSS) (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/mathematical-methods-social-sciences/>) *and* a major in a social science will satisfy the requirements for an additional major in mathematics by

- completing

Course	Title
MATH 226-0	Sequences and Series

- completing 1 of the following course sequences:

Course	Title
MATH 320-1 & MATH 320-2 & MATH 320-3	Real Analysis and Real Analysis and Real Analysis
or MATH 321-1 & MATH 321-2 & MATH 321-3	MENU: Real Analysis and MENU: Real Analysis and MENU: Real Analysis

- and completing 3 of the following courses:

Course	Title
MATH 300-0	Foundations of Higher Mathematics
or MATH 310-2	Probability and Stochastic Processes
or MATH 310-3	Probability and Stochastic Processes
or MATH 311-2	MENU: Probability and Stochastic Processes
or MATH 311-3	MENU: Probability and Stochastic Processes
or MATH 325-0	Complex Analysis
or MATH 330-1	Abstract Algebra

or MATH 330-2	Abstract Algebra
or MATH 330-3	Abstract Algebra
or MATH 331-1	MENU: Abstract Algebra
or MATH 331-2	MENU: Abstract Algebra
or MATH 331-3	MENU: Abstract Algebra
or MATH 334-0	Linear Algebra: Second Course
or MATH 344-1	Introduction to Topology
or MATH 344-2	Introduction to Topology
or MATH 360-1	MENU: Applied Analysis
or MATH 360-2	MENU: Applied Analysis
or MATH 366-0	Mathematical Models in Finance
or MATH 368-0	Introduction to Optimization

Students may not count any 300 level mathematics course toward both the MMSS adjunct major and the mathematics major.

See the Mathematics Major (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/mathematics/mathematics-major/>) for further information regarding Honors in Mathematics, Graduate Study in Mathematics, and Secondary Teaching Licensure in Mathematics.

## Minor in Mathematics for MMSS Majors

A student who has completed all of the requirements for an adjunct major in Mathematical Methods in the Social Sciences (MMSS) (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/mathematical-methods-social-sciences/>) will satisfy the requirements for a mathematics minor by

- completing

Course	Title
MATH 226-0	Sequences and Series

- and completing 1 of the following course sequences:

Course	Title
MATH 320-1 & MATH 320-2 & MATH 320-3	Real Analysis and Real Analysis and Real Analysis
or MATH 321-1 & MATH 321-2 & MATH 321-3	MENU: Real Analysis and MENU: Real Analysis and MENU: Real Analysis

Students may not count any 300 level mathematics course toward both the MMSS adjunct major and the mathematics minor.