

Mathematics

The mathematics major consists of a wide variety of mathematics course that prepare students for opportunities in the workforce as well as the potential for continued graduate study in mathematics, economics, and operations research.

Major Requirements

Major: Mathematics

Degree Type: B.A. or B.S.

Minimum Degree Credits to Graduate: 120

General Education Requirements for Baccalaureate Degree

- A list of approved general education courses is available here (<http://bulletin.ndsu.edu/past-bulletin-archive/2017-18/academic-policies/undergraduate-policies/general-education/#genedcoursestext>).
- General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review the major, minor, and program emphases requirements for minimum grade restrictions, should they apply.

Code	Title	Credits
Communication (C)		12
ENGL 110	College Composition I	
ENGL 120	College Composition II	
COMM 110	Fundamentals of Public Speaking	
Upper Division Writing [†]		
Quantitative Reasoning (R) [†]		3
Science and Technology (S) [†]		10
Humanities and Fine Arts (A) [†]		6
Social and Behavioral Sciences (B) [†]		6
Wellness (W) [†]		2
Cultural Diversity (D) ^{††}		
Global Perspectives (G) ^{††}		
Total Credits		39

* May be satisfied by completing courses in another General Education category.

[†] May be satisfied with courses required in the major. Review major requirements to determine if a specific upper division writing course is required.

College Requirements

Code	Title	Credits
Bachelor of Arts (BA) Degree – An additional 12 credits Humanities and Social Sciences and proficiency at the second year level in a modern foreign language. *		12
Bachelor of Science (BS) Degree – An additional 6 credits in Humanities or Social Sciences *		6

* Humanities and Social Sciences may be fulfilled by any course having the following prefix: ADHM, ANTH, ARCH, ART, CJ, CLAS, COMM, ECON, ENGL, FREN, GEOG, GERM, HDFS, HIST, LA, LANG, MUSC, PHIL, POLS, PSYC, RELS, SOC, SPAN, THEA, WGS, or any course from the approved list of general education courses in humanities and social sciences (general education categories A and B). These credits must come from outside the department of the student's major.

Major Requirements

A grade of 'C' or better is required in all MATH prefix courses.

Code	Title	Credits
Mathematics Major Requirements		
MATH 129	Basic Linear Algebra	3
MATH 165	Calculus I (includes)	4
MATH 166	Calculus II	4

MATH 265	Calculus III	4
MATH 266	Introduction to Differential Equations	3
MATH 270	Introduction to Abstract Mathematics	3
MATH 329	Intermediate Linear Algebra	3
MATH 346	Metric Space Topology	3
MATH 420	Abstract Algebra I	3
MATH 450	Real Analysis I	3
MATH 452	Complex Analysis	3
MATH 483	Partial Differential Equations	3
MATH 491	Seminar	2
Mathematics Electives		16
MATH prefix courses numbered 300 or higher, not including those listed above.		
Related Required Courses		15
A minor or second major in any other program or 15 credits of coursework that includes at least two 300-level (or higher) courses in another discipline.		
Total Credits		72

Program Notes

- Except for courses offered only as pass/fail grading, no course may be taken Pass/Fail.

Minor Requirements

Mathematics Minor

Minor Requirements

Required Credits: 21

Code	Title	Credits
Required Courses		
MATH 165	Calculus I	4
MATH 166	Calculus II	4
MATH 265	Calculus III	4
or MATH 266	Introduction to Differential Equations	
Mathematics Concentration: Select one from the following:		3
MATH 270	Introduction to Abstract Mathematics	
MATH 329	Intermediate Linear Algebra	
MATH 346	Metric Space Topology	
Electives		
6 additional credits of MATH prefix courses numbered greater than or equal to 266 (at least one of which is not listed above).		6
Total Credits		21

Minor Requirements and Notes

- A minimum of 8 credits must be taken at NDSU.
- A grade of 'C' or better is required in all courses used toward this minor.