

Mathematics

Department Information

- **Department Web Site:**
www.ndsu.edu/math/ (<http://www.ndsu.edu/math/>)
- **Credential Offered:**
B.A.; B.S.; Minor
- **Official Program Curriculum:**
catalog.ndsu.edu/undergraduate/program-curriculum/mathematics/ (<http://catalog.ndsu.edu/undergraduate/program-curriculum/mathematics/>)

Mathematics is the language of science and technology. Its explosive development during the 20th Century and its history as the oldest and most highly developed discipline make math one of the most exciting and rewarding areas of study for the 21st Century.

Background Information

In the past few years, a tremendous increase has occurred in the need for mathematics and mathematicians. In such fields as actuarial science, computer science, statistics, engineering, economics and commerce, mathematical training is in high demand.

If you enjoy mathematics and are good at it, you will find both challenges and opportunities in the Department of Mathematics at North Dakota State University. Your advisor, a faculty member in the department, will provide you with information concerning courses, curricula and the many exciting and rewarding careers open to mathematics graduates. The Cooperative Education Program offers the possibility of academic credit for on-the-job training. The student mathematics organization, Math Club, brings in both academic and nonacademic speakers who explore career possibilities and fascinating topics in mathematics at club meetings. Opportunities for paper grading and tutoring are available and allow students to deepen their understanding by assisting others in learning mathematics.

Our faculty members contribute research findings in a variety of areas in theoretical and applied mathematics to internationally known journals. This wide variety of areas of specialization and expertise of faculty members in the department means that you will probably find someone both interested and knowledgeable in any area of mathematics that might fascinate you.

The Program

The Department of Mathematics offers a broad and balanced curriculum of courses taught by a faculty of 15. A student may choose to major in mathematics or mathematics education. Minors in related areas are encouraged. These choices may be made immediately or deferred until the basic course work is completed. In addition to the Bachelor of Science degree, the department offers master's and doctorate degrees.

Career Opportunities

Our students have been very successful in finding employment. Graduates are working in a wide variety of corporations, agencies, universities and school systems. A number continue on for advanced degrees.

The Curriculum

For a mathematics major, 57 credits of mathematics courses are required. The mathematics education major requires 37 credits and emphasizes those areas of mathematics and related disciplines that have proven most useful for secondary school teachers. In addition, there are cooperative double majors in mathematics and computer science, mathematics and physics, and mathematics and statistics, which take advantage of the overlap of requirements and give the student a broader background, thus opening a wider range of career possibilities. Advisors in the Department of Mathematics can furnish details about these and other programs, such as an emphasis in actuarial mathematics.

Sample Program Guide

IMPORTANT DISCLAIMER: This guide is not an official curriculum. This guide is a sample four-year degree plan of how students might plan this major with other degree requirements to complete their education in four years. Student plans will vary from this sample due to a variety of factors, such as, but not limited to, start year, education goals, transfer credit, and course availability. To ensure proper degree completion, enrolled students should utilize Degree Map (<https://www.ndsu.edu/registrar/degreemap/>) and Schedule Planner (<https://www.ndsu.edu/onestop/degree-map-and-planning/>) in Campus Connection and consult regularly with academic advisors to ensure graduation requirements are being met.

Freshman			
Fall	Credits	Spring	Credits
MATH 165 ¹		4 MATH 166	4
MATH 129		3 MATH 329	3
ENGL 110		3 ENGL 120	3
COMM 110		3 Gen Ed Social/Behavioral Sciences	3

Gen Ed Humanities/Fine Arts		3 Free Elective		3
		16		16
Sophomore				
Fall	Credits	Spring	Credits	
MATH 265		4 MATH 266		3
MATH 270		3 MATH 346		3
Related Required Course ²		3 Related Required Course ²		3
Gen Ed Humanities/Fine Arts & Cultural Diversity		6 Gen Ed Social/Behavioral Sciences & Global Perspectives		6
		16		15
Junior				
Fall	Credits	Spring	Credits	
MATH 420		3 MATH 452		3
MATH 450		3 MATH 483		3
Gen Ed Upper Level Writing		3 MATH 300-400 Elective		3
Gen Ed Wellness		2 Gen Ed Science & Tech w/lab		4
MATH 300-400 Elective		3 Related Required Course ²		3
		14		16
Senior				
Fall	Credits	Spring	Credits	
MATH 300-400 Electives		4 MATH 491		1
Related Required Course ²		3 MATH 300-400 Electives		6
Gen Ed Science & Tech		3 Related Required Course ²		3
Free Electives		4 Gen Ed Science & Tech		3
		14		13
Total Credits: 120				

¹
Students who are not ready for Math 165 may need an additional semester to complete their degree

²
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.