Mathematics

at Benedictine University

Why study mathematics at Benedictine?

When you choose to become a mathematics major at Benedictine University, you will benefit from a program that emphasizes general knowledge and principles and develops your intellectual capabilities. You will be guided in developing your abilities in mathematical reasoning and problem solving. You will learn the basic techniques and models of the mathematical sciences.

You will be challenged in your studies since the department features excellent students. You will study under an experienced faculty including five individuals with doctoral degrees in areas of applied mathematics, functional analysis, hyperbolic geometry, abstract algebra and statistics.

You will have a variety of upper level courses from which to choose, including abstract algebra (two semesters), real analysis (two semesters), probability and statistics (two semesters), Fourier analysis, Knot theory, modern geometry, complex variables and cryptography.

You will be able to participate in the Math Club, an organization that plans academic and social activities throughout the year. You may be eligible for the student chapters of the Mathematical Association of America or mathematics honors societies Kappa Mu Epsilon or Pi Mu Epsilon.

What careers are available with a mathematics degree?

A major in mathematics at Benedictine University offers you great flexibility in choosing a career. Benedictine's mathematics graduates are prepared to pursue productive careers in government, education, industry or business in such areas as actuarial science, statistics, quality control, teaching at the secondary level, research, mathematical modeling and other applications in both science and business.

A major in mathematics prepares you for graduate work in mathematics, computer science and other sciences. Students who choose to concentrate in actuarial science are prepared to take the first two courses required toward fellowship in the Society of Actuaries.

Graduates who do not wish to pursue an advanced degree find excellent entry-level positions in such diverse occupations as actuary/accountant, aerodynamics specialist, cryptographer, financial investment analyst, market research analyst, meteorologist or science/math teacher. More than 125 graduates are currently active as high school teachers of mathematics.

Interested? Check out these Web sites:

- Why major in math? - www.math.uga.edu/~curr/WhyMath.html
- Math careers - www.maa.org/reviews/careers.html
- Math job opportunities - www.math.uga.edu/~shifrin/jobops.html
- Great jobs for math majors - www.maa.org/reviews/greatjobs.html

What facilities are available?

The mathematics department is housed in Birck Hall of Science which includes laboratories, classrooms and faculty offices. Computer resources include state-of-the-art laboratories and classrooms. These systems are used exclusively for student instruction and faculty research.

Recommended Program

Bachelor of Science in Mathematics

FRESHMAN

Writing Colloquium	3
Calculus I	5
Psychology/Sociology core elective	3
Physical Science core elective	4
	15

Research Writing	3
Calculus II	4
Computer Science elective	4
Life Science core elective	3
	14

SOPHOMORE

Speech Communication	3
Calculus with Analytics III	4
Philosophy core elective	3
Religious Studies core elective	3
Cultural Heritage (HUMN 220)	3
	16

Linear Algebra	3
Differential Equations	4
Fine Arts/Music core elective	3
Business/Economics core elective	3
Cultural Heritage (HUMN 230)	3
	16

JUNIOR

Abstract Algebra or Real Analysis	3
Mathematics sequence course or elective	3
Literature/Foreign Language core	3
Anthropology/Political Science core	3
Cultural Heritage (HUMN 240)	3
	15

Mathematics sequence course or elective	3
Cultural Heritage (HUMN 250)	3
Electives	9
	15

SENIOR

Abstract Algebra or Real Analysis	3
Mathematics elective	3
Electives	9
	15

Mathematics sequence course or elective	3
Electives	12
	15

How does the program work?

When you choose to become a mathematics major you, will take a minimum of 37 hours from mathematics courses that include three semesters of calculus, differential equations, linear algebra, real analysis and abstract algebra. Other upper level courses are mentioned above. Proficiency in your field is demonstrated by passing a comprehensive examination during your junior or senior year.

As a mathematics major, you can become involved in activities such as teaching assistant, tutoring high school and college students and doing undergraduate research. You may be able to participate in an internship in your field of interest, or you may gain the experience of performing research at off-campus locations such as AT&T, Bell Laboratories, Fermilab, Argonne National Laboratory or BP Amoco Research Center.

Benedictine University participates in the science education programs of the Associated Colleges of the Chicago Area. The annual student symposium in April provides a forum for you to present results of your research or an interesting mathematical problem to students and faculty from member colleges. Benedictine University students have traditionally presented a significant percentage of all student papers at the symposium.