



# Mathematics

## Mathematics at St. Bonaventure

The remarkable effectiveness of mathematics to reveal and quantify patterns in every human discipline makes a degree in mathematics enormously valuable and versatile. The Department of Mathematics at St. Bonaventure University offers a major that prepares students for graduate school and careers ranging from business to industry to government to secondary education. The major is flexible enough to allow a student to obtain a minor or even a second major. Non-majors may obtain a minor in mathematics. The following information provides a brief overview of our department. For detailed information, please visit us on the web at [www.sbu.edu/math](http://www.sbu.edu/math).

## What Our Graduates Do

Graduates of our department work as actuaries, teachers, statisticians, researchers, and even as lawyers. They have found challenging and lucrative careers with employers such as Bell Laboratories, Cleveland State University, Burroughs, M&T Bank, Chase Manhattan Bank, Citibank, Corning Glass Works, Eastman Kodak, General Electric, IBM, Metropolitan Life Insurance, Travelers Life Insurance, Xerox, Harbor Behavioral Health Care, Federal Express, and the Cheiron actuarial consulting firm.

Recent SBU graduates who have majored in mathematics have received fellowships enabling them to work toward graduate degrees at Boston College, Brandeis, Columbia, Carnegie Mellon, Vanderbilt, Indiana, Michigan State, Syracuse, Purdue, Kentucky, North Carolina State, Notre Dame, Arizona, Worcester Polytechnic, Rensselaer Polytechnic Institute, SUNY at Albany, SUNY at Binghamton, Bowling Green State University, and West Virginia University.

## Student Activities

We have a vibrant Math Club that organizes activities such as puzzles, math challenges, math origami, movies, and 3D printing.

The Mathematics Department hosts Pi Day in the spring and Integral Day in the fall. Our Pi Day celebration includes 20-some pies, a pi recitation contest, a pi costume contest, and finding your birthday in the digits of pi. It's pretty awesome.

Our department provides any interested student with a free student membership in the Mathematical Association of America, the world's largest organization dedicated to undergraduate math instruction. A student membership includes online subscriptions to three superb MAA journals.

We also sponsor the New York Omega Chapter of Pi Mu Epsilon, the National Honorary Mathematics Society. Election into Pi Mu Epsilon is based on mathematical achievement and overall scholarship.

We encourage students to work on problems posed in national mathematics journals through the *Bona's Bonus Problems* program. Some students submitted solutions that were selected to be *published* in the journals — a tremendous achievement for an undergraduate.

The Department of Mathematics has a deep commitment to community outreach. Student volunteers help us host the Challenge 24 Competition and a MATHCOUNTS regional contest for middle school students, and have assisted one of our faculty in running Zometool workshops and “geometry barn-raising” for middle and high school students.



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## Faculty

The Mathematics faculty consists of devoted teachers committed to excellent mathematics instruction and advising. Faculty members have distinguished themselves through published research, publishing in mathematics education, refereeing for professional journals, coordinating regional mathematics competitions, and engaging in mathematics outreach.

When a student becomes a mathematics major, he or she is assigned an adviser from the mathematics faculty. The adviser is the student's ally, assisting the student throughout his or her four years in creating class schedules, selecting electives, choosing (perhaps) a minor, and planning a career.

## Facilities

The Department of Mathematics is located in De La Roche Hall 301 and 303. The Mathematics Suite features a spacious common area for students, surrounded by faculty offices.

## B.S. in Mathematics: Requirements

A student majoring in mathematics takes three semesters of calculus (fewer with appropriate AP scores), two semesters of discrete mathematics, linear algebra, abstract algebra, introductory analysis, nine credits of upper-level math electives, and completes a capstone project.

The student also takes two computer sciences courses, fulfills the foreign language requirement, and completes the General Education requirements. Finally, the student has several general electives, which may be fulfilled however he or she pleases.

## Senior Comprehensive Project

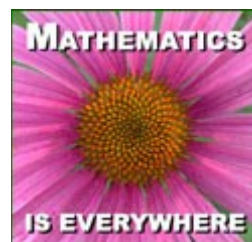
The Senior Comprehensive Requirement is the capstone experience for the mathematics major. The Senior Comp is a wonderful opportunity for the student, under the guidance of a faculty mentor, to explore a topic relating to but beyond the usual scope of an upper-level mathematics course, write a paper on the topic, and then present their work to mathematics faculty and students.

## B.S. in Adolescence Education with a Concentration in Mathematics

St. Bonaventure offers a B.S. in adolescence education, which allows students to pursue initial content-specific teacher certification in New York state (grades 7-12). Students interested in teaching mathematics take the math requirements for the mathematics major along with the education requirements for the major in adolescence education. Such a student has two advisers: one for mathematics and one for education.

## Minor in Mathematics

A minor in mathematics complements many majors, including chemistry, computer science, cybersecurity, finance and physics. To complete a minor, a student takes two semesters of calculus, one semester of discrete mathematics, one semester of linear algebra, and two upper-level math electives. A student pursuing a math minor is guided by an adviser from among the math faculty.



## For More Information

about mathematics at St. Bonaventure, please contact Dr. Maureen Cox, Department chair, at [mcox@sbu.edu](mailto:mcox@sbu.edu) or 716-375-2476.