

www.sbu.edu/admissions • admissions@sbu.edu • 800-462-5050

# MATHEMATICS

www.sbu.edu/math • Dr. Maureen Cox, Chair • mcox@sbu.edu • 716-375-2476

# 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 http://www.sbu.edu/math.

# WHAT OUR GRADUATES ARE DOING...

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, Royal Globe Insurance, Xerox, and Harbor Behavioral Health Care.

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, Worchester Polytechnic, Rensselaer Polytechnic Institute, SUNY at Albany, SUNY at Binghamton, and Bowling Green State University.

# **STUDENT ACTIVITIES**

The Mathematics Department sponsors a student chapter of the Mathematical Association of America (MAA), the world's largest organization dedicated to undergraduate mathematics instruction. During the years that a student attends SBU, the Department pays for the student's membership in the MAA, which includes subscriptions to three superb MAA journals. The Student Chapter meets for talks, Pi Day, Integral Day, and other occasions of mathematical import.

The Mathematics Department also sponsors 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.

Student volunteers help our department to host two regional mathematics contests for middle school students: the Challenge 24 Competition and MATHCOUNTS.

Our department encourages students to work on problems posed in national mathematics journals through the *Bona's Bonus Problems* program. Several Bona's students have solved such problems and as a result, their names appeared in the journals. Some students submitted solutions that were selected to be *published* in the journals—a tremendous achievement for an undergraduate.



Mathematics Faculty: Doug Cashing, Ph.D.; Maureen Cox, Ph.D.; Chris Hill, Ph.D.; Michael Klucznik, Ph.D.; Sally Kwiatkowski, M.S.; Cathie Leary, M.A.; Chris Leary, Ph.D.

## 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, publishing textbooks, refereeing for professional journals, and coordinating regional mathematics competitions.

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: the adviser assists 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 the faculty offices. Our facilities include the Walter J. O'Brien Mathematics Classroom, which is equipped with student computers featuring Derive, Geometer's Sketchpad, LaTeX, and other mathematics software packages.

De La Roche Hall is connected to one of the newest buildings on campus: the William F. Walsh Science Center. The Walsh Center houses state-of-the-art computer science laboratory and classroom space, biology labs, organic and general chemistry labs, a Natural World lab, a 150-seat indoor amphitheater, and faculty offices integrated with lab space for enhanced student-teacher accessibility.

## **REQUIREMENTS: B.S. IN MATHEMATICS**

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 the Senior Comprehensive Requirement. The student also takes two computer sciences courses, fulfills the foreign language requirement, and completes the Clare College requirements. ("Clare College" is SBU's Core Curriculum.) Finally, the student has several general electives which may be fulfilled however he or she pleases.

The Senior Comprehensive Requirement is the capstone experience for the mathematics major. Working under the guidance of a faculty mentor, the student selects and researches a topic relating to, but beyond the usual scope of, an upper-level mathematics course, writes a paper on the topic, and then gives a talk to the mathematics faculty and students.

## MINOR IN SECONDARY EDUCATION

St. Bonaventure now offers a Minor in Secondary Education. Paired with a Major in Mathematics, this minor prepares students for New York state 7-12 teacher certification in mathematics



## FOR MORE INFORMATION

about mathematics at St. Bonaventure, please contact the department chair, Dr. Maureen Cox, at <u>mcox@sbu.edu</u> or 716-375-2476.