Mathematics

HARTWICK COLLEGE
Know the Facts.

The Hartwick Difference

The Hartwick mathematics major provides students not only with an understanding of mathematical principles and the application of those principles, but also with the ability to think logically and express themselves precisely and creatively. Mathematics majors at Hartwick are strongly encouraged to pursue their own interests within the major; in fact, they are required to complete two advanced directed studies with faculty members. Students enjoy one-on-one contact with faculty members and have the opportunity to take full advantage of the faculty's wide expertise as it intersects with their own interests and curiosity.

Three-Year Program

Ready to move faster? Get the full Hartwick mathematics experience in three-quarters the time at three-quarters the cost. Students with Advanced Placement for calculus can finish a mathematics major under the Three-Year Bachelor's Degree Program. Learn more at **www.hartwick.edu/threeyeardegree**.

Major Components

Mathematics majors gain a foundation for advanced study through core courses in calculus and linear algebra, followed by a course in abstraction, which introduces logic and proof, essential for future work. To obtain an overview of modern mathematics, majors take courses in two general areas: abstract algebra and real analysis. As an introduction to applied mathematics, they also take a course that stresses a modeling/problem-solving approach to using mathematics.

During their junior year, majors participate in a junior seminar, which emphasizes supervised seminar study and oral presentations. All majors also complete a senior project or participate in the Senior Capstone Seminar, involving supervised independent study, written presentations, and a final oral presentation. Past theses include Taxicab Geometry, Determining the Demand for College Attendance, Foundations of Set Theory, Complex Analysis, Ramsey Theory Applied to Graphs, A Metric Approach to Hyperbolic Geometry via Calculus, Cryptanalysis and Computer Security, Advanced Graph Coloring Concepts, and Products of Reflections in Euclidean and Hyperbolic Geometry.

www.hartwick.edu/catalog

Course Highlights

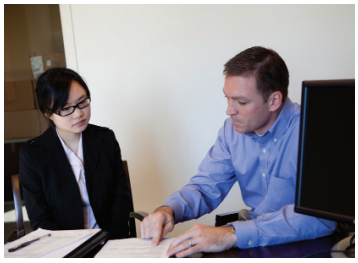
For the full online course catalog and requirements, visit **www.hartwick.edu/catalog**.

Students who wish to pursue a special area of mathematics in greater depth may do so by taking additional courses in that area and by completing independent study with a faculty member. Among the areas available for such study are numerical methods, mathematical modeling, operations research, probability, statistics, topology, graph theory, geometry, discrete mathematics, and the history of mathematics. It is common for mathematics majors to have a second major or a minor in fields such as computer science, economics, biology, or physics, and faculty members will work with those students to help them gain the mathematical background crucial for success in those areas.

SMALL CLASSES

PERSONAL ATTENTION

STUDY ABROAD



NETWORK THROUGH INTERNSHIPS

Find your place.

HARTWICK COLLEGE

est. 1797

www.hartwick.edu/math

For more information, contact
the Office of Admissions
at 607-431-4150 or
888-HARTWICK (888-427-8942).

For specific inquiries, contact
Charles Scheim, Department Chair,
at 607-431-4736 or
scheimc@hartwick.edu.

Students interested in engineering can earn a B.A. degree in mathematics from Hartwick and an engineering degree from Clarkson University or Columbia University through Hartwick's dual-degree program. Under this program, students spend three years at Hartwick and two at the engineering school, graduating with a bachelor's degree from each school. In addition, students may complete four years at Hartwick, earning a bachelor's degree in mathematics and then spend two years at the engineering school and earn a master of science degree in engineering.

Beyond the Classroom

Hartwick mathematics majors are encouraged to participate in internships and to research other fields in which they might pursue careers. Math majors recently have interned at Bassett Research Institute, Phoenix Life Insurance, and Badey & Watson Surveying and Engineering PC.

A Math Center sponsored by the department offers problem sessions and tutoring for students enrolled in any of the department's service courses.

Putting Mathematics to Work

Hartwick mathematics majors have achieved success in many fields. Many majors are now high school mathematics teachers. Other mathematics majors and minors have gone on to careers in engineering, medicine, banking, management, computer science, teaching, and actuarial work.

Preparation for Advanced Study

Many Hartwick mathematics majors have completed master's and Ph.D. programs at some of the most prestigious universities in the country. Recent graduates have pursued graduate mathematics degrees at schools such as the University of North Carolina at Chapel Hill, Clemson University, Virginia Commonwealth University, and the State University of New York at Albany. Others have pursued advanced degrees in engineering, law, economics, and optometry at Georgia Tech, The College of William and Mary, Michigan State, and the University of Massachusetts.

Faculty

Ronald M. Brzenk, Professor; Ph.D., University of Notre Dame. Areas of focus: number theory, mathematical modeling

Min Chung, Assistant Professor; Ph.D., Indiana University. Areas of focus: harmonic analysis

Charles H. Scheim, Professor; Ph.D., Brown University. Areas of focus: geometry, statistics, number theory

Gary E. Stevens, Professor; M.A., M.S., Bowling Green State University; Ph.D., University of Michigan. Areas of focus: graph theory, combinatorics, discrete mathematics, problem solving, history of mathematics