The study of mathematics transforms the mind and develops a creative and efficient intellect. At Centre College, the professors have a passion for teaching mathematics. We enjoy exploring new ideas with Centre students, and together, we solve interesting problems with a blend of classical techniques and the latest technologies. Our students master central concepts in mathematics and in the process learn to think precisely and to clearly articulate their ideas.

What are the basics of a mathematics major? The Centre College mathematics major begins by establishing a firm foundation in calculus and linear algebra during the student’s first two years. Students may then choose from a broad range of courses that include the more theoretical studies of algebra, analysis, and complex analysis, as well as the more applicable areas of differential equations, probability, and statistics.

Class sizes are small—usually between 20 and 30 students in classes through the sophomore year, and often smaller in upper-level courses. Depending on student and faculty interest, the mathematics program offers courses in special topics. Two recent examples of special topics courses are Numerical Differential Equations and Stochastic Modeling.

Centre’s mathematics faculty are readily accessible. Their office doors (on the main floor of Olin Hall) are always open, and they can provide excellent advice about schedules, goals, and future careers. Each year advanced mathematics majors have worked with professors on independent studies or research projects, while others have participated in internships. There are many opportunities for you to learn and discover mathematics at Centre, and (as a Centre student) you'll want to plug into as many of them as you can.

How successful are mathematics graduates? A major in mathematics provides solid preparation for interesting and fulfilling careers in research, teaching, industry, and government. Centre College is proud of the outstanding academic quality of its mathematics majors. Year after year, our graduates move into a variety of interesting jobs (investment banker, engineer, actuary, physician, and school teacher, to name a few) and into prominent graduate programs. Many of them combine their mathematics interests with other major fields; we have students double-majoring with mathematics in such varied fields as chemistry, computer science, economics, English, music, physics, and romance languages. Most say that their mathematics major helps them in their other field of study.

What can you tell me about the student mathematics organizations? Centre is home to one of the first student chapters of the Mathematics Association of America. Centre also has a chapter of the national mathematics honor society Pi Mu Epsilon. Our math club is an active group, hosting at least one activity per month including Casino night, Battle of the Sexes math competition, a Mathematical Relay Race, hosting guest speakers, and the annual croquet grudge match versus the chemists. This popular organization is a wonderful way for students to create, organize, and get involved with activities that are affiliated with mathematics.

What are some career opportunities? Career opportunities are constantly expanding for students majoring in mathematics. Recent Centre math graduates are in such diverse positions as:

- Actuaries at Humana, Safeco, Sedgewick James, and Guardian Life Insurance Company of America
- Attorney
- Auditor for the U.S. Department of Agriculture
- College professor
- Economist at Research Triangle Institute
- Mechanical Engineer at Ford Motor Company

“The math program at Centre gives students the opportunity to challenge themselves and to be fully engaged in a supportive learning environment. The math professors are committed to helping students, and they embody all of the qualities that place Centre among the best schools for undergraduate teaching.”

Ashley El Rady
Centre Class of 2015
Double Major: Mathematics and Economics
• Physician
• Programmer and analyst at Federal Express
• Research assistant at Oak Ridge National Lab
• Secondary school teacher
• Software Development Engineer at Deutsche Bank

Additionally, many mathematics graduates have chosen to attend graduate programs in a variety of disciplines, including:
• architecture at Notre Dame
• computer science at Carnegie Mellon, University of Kentucky
• economics at Princeton, University of Illinois
• law at Harvard and Berkeley
• M.B.A. at the Wharton School at The University of Pennsylvania
• mathematical biology at Oxford
• mathematics at Dartmouth, University of Illinois, Purdue, North Carolina State, University of Kentucky, University of Louisville, Purdue, Washington University at St. Louis
• operations research at Columbia
• physics at Georgia Tech
• statistics at University of Illinois, North Carolina State, University of Kentucky

Who are the mathematics faculty?
Centre’s mathematics faculty have a variety of teaching and research interests, ranging from the theory of codes and messages, to finding patterns in numbers, to the mathematics of logic and computers. They enjoy working with students and getting to know them better. They often meet with students to put their heads together, to solve challenging mathematics problems, and to share notes and ideas. These professors have accomplished records in mathematical research, teaching, and leadership. Several members of the mathematics program have published papers co-written with students.

JEFFREY HEATH, Associate Professor of Mathematics, is an applied mathematician studying operations research and statistics in sports.

RASITHA JAYASEKARE, Visiting Assistant Professor of Mathematics, investigates statistical models in the stock market.

BETH KELLY, Visiting Assistant Professor of Mathematics, studies enumerative combinatorics and its connections to other disciplines.

JOEL KILTY, Assistant Professor of Mathematics, studies the behavior of partial differential equations on domains with corners and non-smooth edges.

ALEX McALLISTER, Professor of Mathematics, investigates questions in computability theory and in the history of mathematics.

SARAH MURRAY, Associate Professor of Education, studies professional development models for mathematics education.

CHRISTINE SHANNON, Haggin Professor of Mathematics and Computer Science, studies the design and application of algorithms.

ELLEN SWANSON, Assistant Professor of Mathematics, applies mathematical techniques and theory in order to better understand physical behavior.

LESLEY WIGLESWORTH, Assistant Professor of Mathematics, studies problems in pure and applied graph theory.

JOHN WILSON, Stodghill Professor of Mathematics, enjoys working with students in the area of public key cryptography.

Visit Centre
The best way to judge Centre is to tour the campus, attend a class, talk to the professors and students, and spend the night in a residence hall. We invite you to visit and encourage you to contact the Admission Office if you have any questions.

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