MATHEMATICS IS THE STUDY of pattern and quantity. Our students learn problem solving, critical thinking, the power of abstract and logical reasoning, and the precise expression of ideas, preparing them to take on demanding, quantitative tasks in a variety of fields. Careers in mathematics and closely aligned fields are consistently at or near the top of the Wall Street Journal’s “Best Jobs” rankings. The value of advanced mathematical skills in economics, biology, genetics, medicine, education, law, and finance, also means that mathematics majors are uniquely prepared for careers or graduate studies in a wide range of disciplines. A separate brochure is available for students interested in Actuarial Science.

Bachelor of Science (BS) in Mathematics
Minors: Mathematics, Statistics

The Xavier Advantage:

- Receive personal attention from faculty with introductory classes of typically fewer than 25 students and even smaller upper-level classes.
- Participate in funded internships and special summer study and research programs nationally and in the Cincinnati area, including Xavier’s summer research program.
- Work in paid positions as a tutor in the Mathematics Tutoring Lab or the Learning Assistance Center, or as a grader for a faculty member.
- Complete and present a Senior Project under the supervision of a faculty member to demonstrate your capacity for advanced mathematical thinking and reasoning.
- Join the Xavier Math Club and the national honorary mathematics society, Pi Mu Epsilon.

Xavier mathematics graduates go on to:

- Ohio Casualty Insurance
- IBM
- Fidelity Investments
- Fifth Third Bank Corporation
- General Electric
- Western & Southern
- The Nielson Company
- Mercy Health Partners
- Gap Stores
- Northwestern University
- University of Notre Dame
- Emory University
- Vanderbilt University
- University of Wisconsin - Madison

Learn more  www.xavier.edu/mathematics
Ask us  xuadmit@xavier.edu
Visit campus  www.xavier.edu/visit
THE PROGRAM
The Department of Mathematics and Computer Science is housed in Hinkle Hall, the campus facility that's modeled after the Xavier family castle in Navarre, Spain.

Faculty members have earned doctoral degrees from distinguished institutions around the nation and are actively engaged in ongoing research. They have served as principal investigators on National Science Foundation grants, and received awards and fellowships to create new courses and related academic initiatives.

With introductory classes of typically 25 students and smaller upper-level classes, personalized attention and faculty assistance are readily available. Each student receives individual advising from members of the department. The faculty believes that the best teaching can be done only when there is close faculty-student interaction for discussion, thinking and exploration.

The program prepares students for the growing variety of mathematics careers by emphasizing key skills:

► Developing an understanding of the contemporary and historical role of mathematics and being able to place the discipline properly in the context of other human intellectual achievement.

► Learning to use appropriate technology in all aspects of problem solving.

► Cultivating interests in applied areas such as probability and statistics, computer science, numerical analysis, financial mathematics and mathematical economics.

► Gaining the ability to read and learn mathematics on your own.

► Fostering creativity, critical thinking, and the use of the imagination, particularly in the understanding and development of justification and proof.

► Preparing for graduate studies in mathematics or related disciplines, for teaching at the secondary level, or for careers requiring mathematical knowledge and understanding.

RESOURCES
The department maintains a new Study Lounge for majors and minors, providing a morning through late-night space for individual and collaborative work. The Mathematics Tutoring Lab in the Conaton Learning Commons offers free help to all Xavier students in mathematics classes numbered 105 through 171 (except MATH 125), with no appointment necessary. Individualized, private tutoring is available through the Learning Assistance Center. Upper-class mathematics majors can work on campus as paid tutors in the Mathematics Tutoring Lab and the Learning Assistance Center. Students may also hold paid positions as graders for core curriculum mathematics courses.

Students have opportunities for internships and special summer study programs both nationally and in the Cincinnati area, including the National Science Foundation Research Experiences for Undergraduates (REU) program and opportunities available through the American Mathematical Society. Students also have the opportunity to experience research with a Xavier faculty member.

The Xavier student chapter of the Mathematical Association of America, offering career information and research and internship opportunities, is open to all mathematics majors who also may receive an invitation to join the national mathematics honor society, Pi Mu Epsilon.

OUTCOMES
Careers in mathematics and related fields continue to rank at or near the top of the Wall Street Journal's annual "Best Jobs" rankings. Advancements in technology usually lead to expanding applications of mathematics, and more workers with knowledge of mathematics will be required in the future. Through the study of mathematics, students develop problem-solving and critical-thinking skills, opening the way to career opportunities in all areas of business and industry. Mathematicians are in demand to fill both traditional and emerging positions in engineering, computer science, the physical sciences and statistics. Mathematics majors also enter the fields of business, education, law, economics, medicine, and other social and health sciences.

Xavier's mathematics graduates have gone on to such positions and employers as the following:

• Actuary, Ohio Casualty Insurance
• Attorney, Taft, Stettinius & Hollister
• Automation engineer, E-Technologies Group
• Consultant, Fidelity Investments
• Data architect, Commonwealth of Massachusetts
• Executive director of international business, SBC Communications
• Financial analyst, Western Southern Fund
• Human resources director, Mercy Health Partners
• Information solutions manager, General Electric
• Market analyst and planner, Cinergy Corp.
• Materials manager, Beavel Aerospace & Defense
• Mathematics teacher, Sycamore High School
• Producer/Reporter, WLRN & The Miami Herald
• Mathematics teacher, Chicago Public Schools
• Operations research analyst, U.S. Army
• Professor, California Polytechnic State University
• Professor, University of Illinois, Urbana-Champaign
• Senior analyst, Gap Stores
• Senior vice president, Fifth Third Bancorp
• Systems engineer, IBM Corp.

Graduates also have been accepted into and received fellowships for graduate programs at such prestigious institutions as:

• Emory University
• Indiana University
• Miami University (Ohio)
• Michigan State
• North Carolina State University
• Northwestern University
• Rice University
• University of Cincinnati
• University of Florida
• University of Kentucky
• University of Nebraska
• University of Notre Dame
• University of Colorado-Boulder
• University of Wisconsin-Madison
• Vanderbilt University
The Conaton Learning Commons, opened in 2010, is the heart of the James E. Hoff, S.J., Academic Quad. The Commons provides students with the facilities, technologies and services to help them master essential skills and gain a competitive advantage in their respective disciplines and careers. As a result, Xavier graduates are better prepared to enjoy successful lives and careers.

The Commons:
- Features 84,000 square feet, five floors and 24/7 environment.
- Creates a focal point for connecting teaching, learning and the Jesuit mission of service to others.
- Equips students with academic and technological tools in a wireless setting.
- Offers ample space for individual study and group work in a wireless setting with access to plasma screens, movable white boards and a café.
- Houses centers for academic advising and career services and labs for math, writing and modern languages.
- Includes a digital media lab, classrooms, auditorium and a centralized location for reference and technology assistance.

THE COLLEGE & THE CITY
The College of Arts and Sciences is the oldest and largest college at Xavier University. Its goal is to provide excellent liberal arts education in the Jesuit tradition that prepares students for careers, professional or graduate school, and life in a global society.

Centrally located in the heart of the Midwest and set along the Ohio River, Cincinnati is a thriving city, offering college students in the region a wide range of opportunities for internships and careers. Culture and entertainment ranges from the Cincinnati Art Museum to the Cincinnati Reds. Affordable and accessible, Cincinnati is rated one of the "most wired“ U.S cities (Forbes Magazine), most sociable city in the world (mashable.com), and one of the top 15 U.S. cities to live and work (Fortune Magazine).

CORE CURRICULUM
The foundation of Xavier’s success is its commitment to its Jesuit heritage. The Core Curriculum embodies Xavier’s mission and philosophy of education and serves as a valuable foundation for all undergraduate students. Within the Core, the four-course Ethics/Religion and Society (E/RS) Focus fosters students’ understanding of socially significant issues through study of the humanities, especially literature, philosophy and theology, as well as the social and natural sciences. Along with courses in their major, Xavier students also take Core courses in cultural diversity, English composition, fine arts, foreign language, history, literature, mathematics, philosophy, science, social science and theology.

ACADEMIC REQUIREMENTS
Core Curriculum: Minimum 64 credit hours

Major in mathematics: 45 credit hours, including three hours of computer science. Students are required to complete the Major Fields Test in mathematics and a senior project that will be presented to department faculty and students.