

Mathematics

Mathematics is better learned by doing than by observing, so active student participation is encouraged in all programs. Since the opportunity for students to work with faculty individually and in small groups is also of utmost importance, numerous small classes and seminars are provided. Students majoring in mathematics are encouraged to discover areas in which they have both talent and interest, to gain familiarity with a wide range of mathematical areas, and to acquire deeper knowledge of some mathematical specialty.

The Department serves other academic areas through courses in elementary functions and calculus, statistics, mathematics for the liberal arts, and mathematics for prospective teachers.

Why Guilford College?

Consistently rated nationally by *The Princeton Review* as well as being one of the 40 colleges in *Colleges that Change Lives* by Loren Pope, Guilford College inspires each student to achieve excellence through an engaging community, rooted in Quaker values, which nurtures creativity and social responsibility.

What can a Guilford education offer you?

- An urban setting near other colleges & universities with an area student population of over 27,000 students
- A consortium agreement with University of North Carolina at Greensboro, Greensboro College, Bennett College, North Carolina A&T State University, Elon University and High Point University provides students with access to courses free of charge
- A college mission statement & core values based on, and consistent with, Quaker testimonies. Guilford's core values are: Community, Diversity, Equality, Excellence, Integrity, Justice & Stewardship.
- A challenging academic program which emphasizes not only academic tracks and the learning process, but also the interconnection between curricular and co-curricular pursuits
- A diverse student population providing a stimulating peer environment
- Excellent study abroad programs in China, England, France, Germany, Ghana, Ireland, Italy, Japan, Mexico, Netherlands, Scotland, Spain, and Wales

The academic program in Mathematics

The Bachelor of Science degree is offered in Mathematics.
A minor is available in Mathematics for the Sciences.

Required courses for the Mathematics major

Majors are required to complete 32 credit hours in mathematics courses or seminars numbered above 120. Calculus through Multivariable Calculus (MATH 225) and Foundations of Mathematics (MATH 231) are basic requirements of all majors. Majors must also complete either Linear Algebra (MATH 325) or Mathematical Physics (MATH 320). In addition, each major must take one upper-level course in theoretical mathematics (selected from MATH 335, 430, 435, or approved 475) and another in applied mathematics (selected from MATH 310, 412, 415, or approved 475).

Many majors emphasize a particular area of mathematics in their course work. Those emphasizing theoretical mathematics have been notably successful in graduate study at respected universities; majors who wish to prepare for graduate school should take Topology (MATH 335), Algebraic Structures (MATH 430), and Real Analysis (MATH 435). Other students emphasize applied mathematics in preparation for advanced study in areas other than mathematics; such majors should include Probability and Statistics (MATH 310) and an advanced seminar (MATH 475) on an applied topic of interest in their programs.

Students preparing to teach mathematics in secondary schools should take Geometry (MATH 235), Probability and Statistics (MATH 310), and Algebraic Structures (MATH 430). The most frequent double or joint major with mathematics is physics; students pursuing this option should take Mathematical Physics (MATH /PHYS 320) and an advanced seminar (MATH 475) on further topics in mathematical physics. Mathematics majors are frequently double or joint majors. Such majors that allow students to pursue other strong interests in any other discipline and relate them to mathematics are encouraged by the Department.

Where do graduates go?

Students majoring in Mathematics at Guilford have pursued graduate programs at the following schools:

- University of North Carolina at Chapel Hill
- University of North Carolina at Greensboro
- University of Tennessee
- University of Kentucky
- Cornell University
- University of Missouri
- Texas A&M University

Faculty

G. Rudolph Gordh, Jr., Professor, Chair; rgordh@guilford.edu

Elwood G. Parker, Professor

Benjamin Marlin, Associate Professor

Jonathan Hatch, Assistant Professor

Daniel Katz, Assistant Professor

**For additional information about Mathematics at Guilford College visit
www.guilford.edu/academics**

