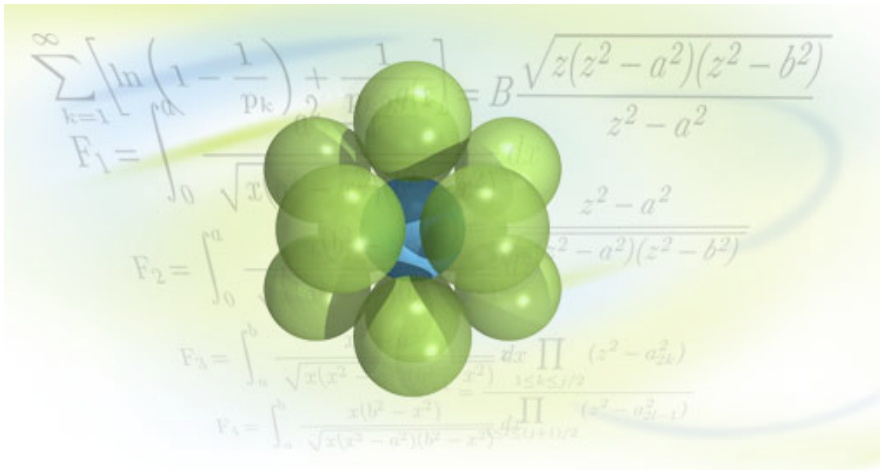
Mathematics at Dartmouth



Welcome to the Dartmouth Math Department!

Topology, geometry, prime numbers, probability…what is the shape of the universe? how do I calculate risk? Are there an infinite number of twin primes? Mathematics is full of unsolved problems and mind-bending concepts and the Math Department at Dartmouth is a place to learn about and investigate these ideas. Much can be found at the department website: http://math.dartmouth.edu

Here's some quick information about what's available:

1. What can I do with a degree in Mathematics?

Our majors have gone on to work in many different areas, ranging from education to research, from the Peace Corps to Goldman Sachs. While some go on to graduate school, looking to make an academic career of mathematics (or some other mathematically related field), it turns out that law schools also love math majors for their rigorous logically trained minds. In short, being a math major prepares you for many different careers: anything that is quantitatively driven (which these days is just about everything) and even more, anything that requires the ability to piece together a logical and precise argument. Recruiters are clamoring for math majors. Just ask your friends who are out on the job market!

2. What kinds of classes are available?

All math majors need the basic training of calculus and linear algebra (vectors and matrices!). After that, your path will largely be guided by your interests, be it

algebra or geometry, pure or applied math. Within the applied world the department has recently added several new courses: Math 27 (mathematical biology), Math 46 (intro to applied math), Math 53 (Chaos!), Math 66 (Topics in Mathematical Physics), Math 75 (Applied Topics in Number Theory and Algebra), Math 76 (topics in applied math), Math 86 and 96 (computational finance I and II). There is also Math 17 (An Introduction to Mathematics Beyond Calculus). The possibility of designing a "modified major" allows you to construct a mathematically-based curriculum better suited to a particular interest. There are many examples of math modified with economics, physics, or computer science, but some recent examples include subjects like ecology! There are lots of possibilities to be creative and innovative. Our advisor to majors is Professor Dana Williams - he can help with this. Minoring in mathematics or modifying another major with math are also options.

3. What kinds of math-related activities are there on campus?

There is a thriving "mathematical community" on campus. **The Dartmouth Math Society** has regular meetings with activities that include lectures, movies, and pizza parties, as well as research lectures from its members. Dartmouth sponsors a student chapter of the Association for Women in Mathematics. There are also various mathematical competitions: the department sponsors a Dartmouth team for the national Putnam Mathematical Competition which is held in early December. "Training sessions" are held all fall (you need not compete in order to train - and eat pizza!). Last year's team placed 20th in the nation – Dartmouth's best showing since 2001. In 2006 the Dartmouth team took first place at the Collegiate Mathematical Competition held by the Northeastern Section of the Mathematical Association of America. For over a hundred years the Department has conducted the Thayer Prize Mathematical Exam for first-year students. The names of the winners are put on a plaque in the undergraduate lounge in Kemeny Hall.

4. Can I get some research experience in mathematics?

Faculty in the mathematics department have supervised all sorts of undergraduate research, in pure and applied math. Examples include projects in finance, combinatorics, and molecular imaging. This can be done as a WISP intern or as a Presidential Scholar, or simply on your own initiative. Opportunities are available for any interested and motivated student. Some of these projects have resulted in publications. The department website lists some possible options.