Mathematics

The concentration in Mathematics is designed to acquaint the student with the most important general concepts underlying the three branches of modern mathematics. Concentration in mathematics will provide an adequate basis for further study in either pure or applied mathematics. Because so many disciplines now rely on the mathematical sciences, a concentration in mathematics provides a valuable background for many different careers. Concentrators who do not choose to continue in mathematics have often gone on to graduate work in other academic subjects or to professional training in law, business, or medicine.

Suggested Courses for Students Interested in Mathematics

First Year:

Potential concentrators should enroll in a math course at the appropriate level:

Mathematics 21a and *21b*

Mathematics 23a and *23b*

Mathematics 25a and *25b*

Mathematics 55a and *55b*

Those who need some extra preparation before entering the math courses listed above should enroll in Math 1a and 1b during the first year.

Third Term:

Potential concentrators who have completed *Math 23a* and *23b* or higher in the first year should enroll in *Math 122, Abstract Algebra*. Other suitable courses include:

Math 131, Topology

Math 114, Measure and Integration

Potential concentrators who have completed *Math 21a* and *21b* in the first year should consider the following courses to gain a background in proof-based mathematics:

Math 101, Sets, Groups and Topology

Math 121, Linear Algebra and Applications

Math 112, Real Analysis

Math 106, Ordinary Differential Equations

Math 130, Classical Geometry

Math 154, Probability Theory

* The concentration does not require an application for admission.

Senior Thesis: A senior thesis is required of all Honors candidates.

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