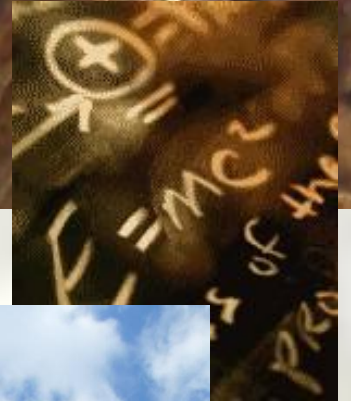
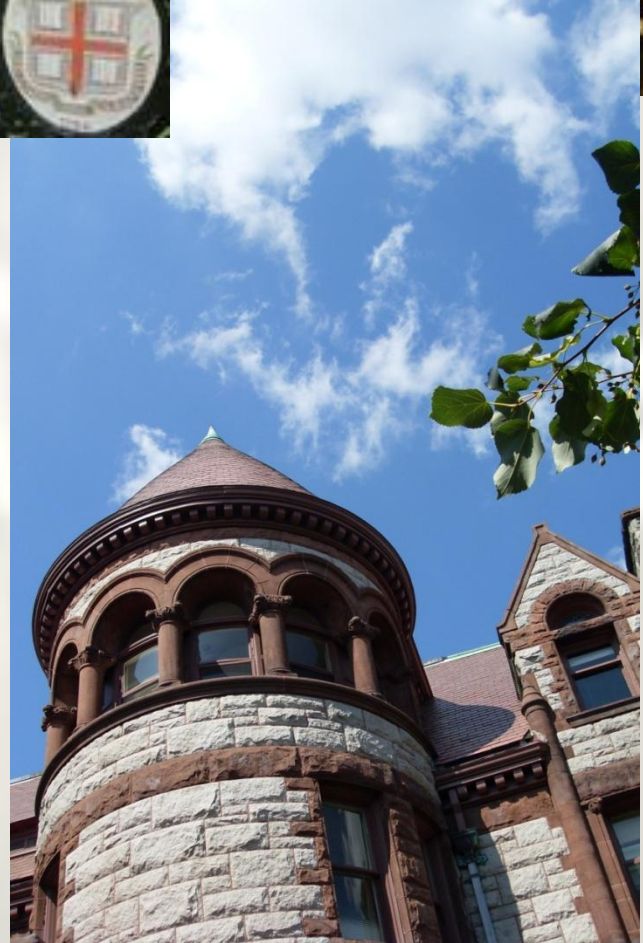


The Division of Applied Mathematics

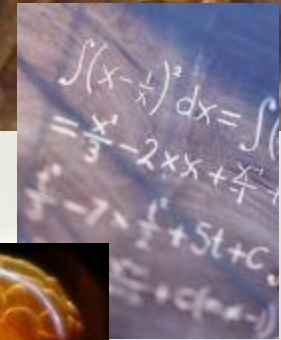


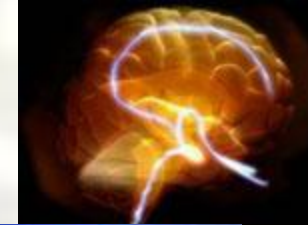
What is Applied Mathematics?



What is applied mathematics?

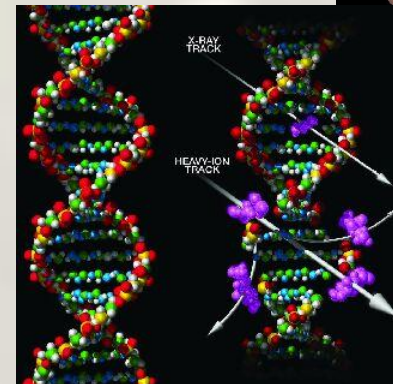
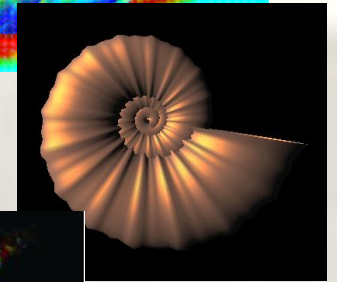
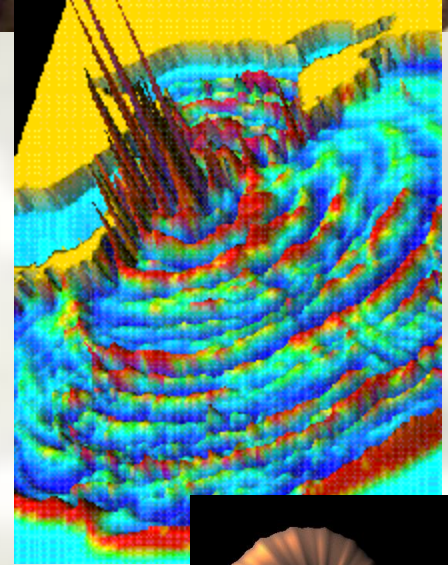
Applied Mathematics is an inherently interdisciplinary subject, which covers a wide spectrum of scientific activities. It is the mathematics dealing with problems arising in the physical, life and social sciences as well as in engineering, and provides a broad qualitative and quantitative background for use in these fields.


$$\int (x - \frac{1}{x})^2 dx = \int (x^2 - 2x + \frac{1}{x^2}) dx = \frac{x^3}{3} - 2x + \frac{1}{x} + C$$



The Division of Applied Mathematics

The methods of mathematical modeling and analysis provide a unification and mutual enrichment of ideas from many different areas, and a deeper understanding of the fields to which it is applied. Applied Mathematics draws upon concepts and methods of mathematics from the fields of application and in turn, brings ideas, techniques and scientific knowledge back to influence the development of mathematics.



Owing to its nature, Applied Mathematics appeals to people with a variety of different interests, ranging from those with a desire to obtain a good quantitative background for use in some future career, to those who wish to have a better understanding of the basic mathematical aspects of other fields, or to those who are interested in the basic techniques and approaches in themselves. The curriculum of the Division is flexible enough to meet these different goals.



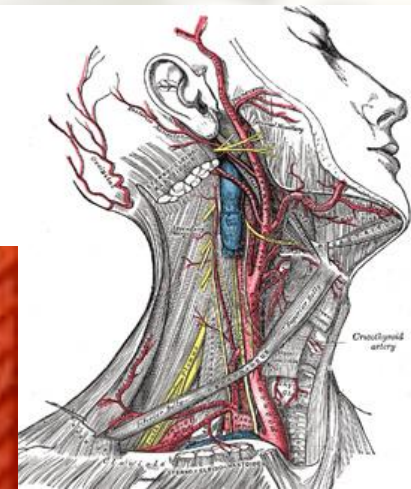
Brown University is unique in having a separate department devoted to Applied Mathematics. The Division of Applied Mathematics, created in 1941, provides a special environment for the interaction of people with varied scientific interests. The Division draws together faculty who elsewhere might be dispersed in quite different departments, depending on their primary interests.



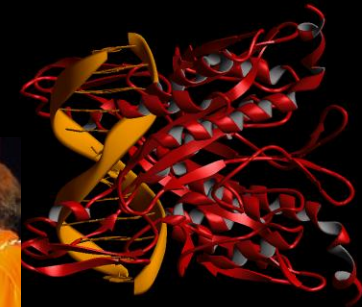
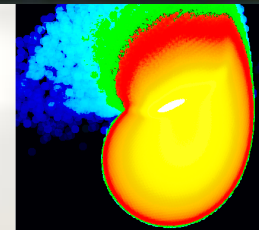
“The challenge with older students is to open their minds to new viewpoints. But, freshmen, ah, they are a pleasure to instruct.”

William Prager
(1903-1980)

The basic mathematical skills of Applied Mathematics come from a variety of sources, which depend on the field of interest: the theory of ordinary and partial differential equations, statistical sciences, probability and decision theory, operational analysis, optimization theory, the mechanics of solid materials and of fluids flows, numerical analysis, scientific computation and the science of modern computer-based modeling.



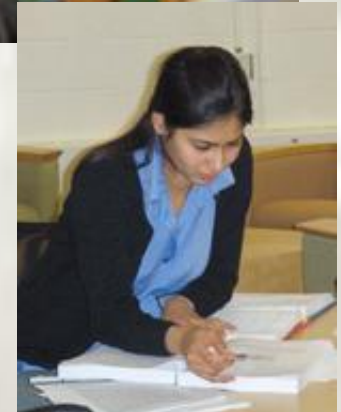
The standard Applied Mathematics concentrations lead to either the A.B. or Sc.B. degrees. The program is very flexible. There are specific joint programs with biology, computer science and economics; while a focus involving engineering or the physical sciences would fit within the standard concentration. The range of offerings either within Applied Mathematics alone or in combination with offerings of other departments, provides broad opportunities.



Choosing Courses

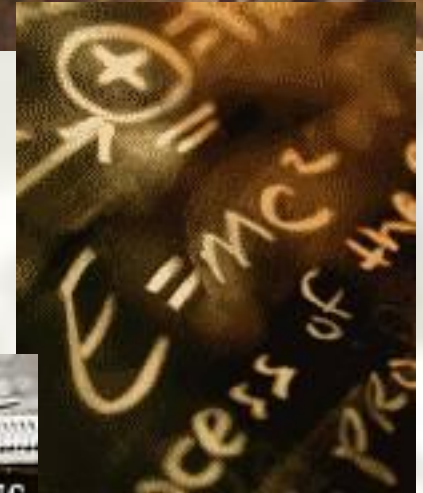
The courses in Applied Mathematics are designed for students with a wide range of goals and are not limited to the needs of students following an applied mathematics concentration. There are many opportunities for students to explore different subject areas and explore those they find most interesting.

When choosing courses, consider what your goals are. Do you wish to pursue applied mathematics at a graduate level? Do you wish to gain a good basis in applied mathematics at an undergraduate level, but intend later to pursue some other related area? Are you simply taking courses for general understanding and knowledge?

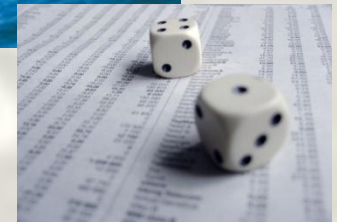


The Division of Applied Mathematics

The various concentrations in Applied Mathematics do prepare students for a great variety of career opportunities. In many cases, the Applied Mathematics concentration will provide an excellent general-purpose mathematical training, to be followed and completed by the acquisition of specialized skills either in graduate school or in a career setting.



In recent years students who have followed one of the undergraduate concentrations in Applied Mathematics have gone into many different areas including: graduate study in applied mathematics; engineering; life, physical or earth and planetary sciences; economics, business studies or actuarial work; insurance and investment management; computer consulting and information industries...



...as well as, scientific careers in industry or government service; medical school; teaching; banking and finance; and in operations research or statistical analysis in industry or government agencies. In particular courses offered in applied mathematics provide the preparation needed for several of the actuarial professional examinations.

For more information, please visit www.dam.brown.edu

