

In this course we will get familiar with a broad spectrum of fundamental mathematical systems and techniques, each of which occurs often in the wide variety of mathematical attacks which have so far been invented for addressing problems. In particular, many of these systems and techniques will be very helpful to you if you proceed on to any area of the sciences or to further mathematics.

More generally, the following broad perspective may be helpful to you. The fundamental tools of mathematics provide a rich storehouse of models for the representation and solution of many problems. Making intelligent use of these models involves both (1) developing a facility for analyzing problems and casting them in ways which, where appropriate, make good use of these models of mathematics, and (2) developing a facility for working with these models themselves. Our course will take us through a representative sample of these tools of mathematics, and will concentrate on both aspects (1) and (2) delineated above. It can be a very exciting journey (if your involvement is sincere and includes both good class attendance and a parallel daily commitment to hammering things out on your own through daily study and problem-solving), at the end of which you will find not only that your mathematical maturity has been substantially enriched, but also that the general analytical skills you bring to bear in the broader arena of your daily life will be substantially enriched as well.

Text:

FINITE MATHEMATICS by Berresford and Rockett

Evaluation:

Firstly, in addition to ungraded daily assignments, there will be a sequence of graded **SUBMITTED ASSIGNMENTS** which can be resubmitted repeatedly until satisfactory.

Secondly, there will be four mid-semester exams and a final exam. Only very exceptional circumstances could justify missing an exam; in these rare cases, except in emergencies, permission must be requested in advance;

with regard to the mid-semester exams, there will be no makeup exam given for a missed exam, and the grade for a missed exam will be determined at the end of the semester on the basis of the student's other evaluation results.

The evaluation framework is as follows: (please note especially the dates, already fixed, when the four exams will take place):

Exam 1:	Tuesday	15 Feb	150 points
Exam 2:	Tuesday	15 Mar	150 points
Exam 3:	Tuesday	5 Apr	150 points
Exam 4:	Tuesday	19 Apr	150 points
Final Exam:			350 points
Submitted Assignments:			
	to be submitted en masse by		
	Fri 22 Apr for grade recording		50 points
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		Total:	1000 points

Grading:

90-100%, A; 80-89%, B; 70-79%, C; 60-69%, D; 0-59%, F. The grading may be less stringent, but not more stringent, than this.

This course satisfies the Foundation of Natural Science/Mathematics requirement.

Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of probability and statistics in analyzing natural phenomena.

Note regarding special needs:

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 2001 C. B. Hedgcock (227-1700; TTY 227-1543). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state and University guidelines.