

EC705 Introduction to Mathematical Economics
September 2007

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Office hours: Wednesday 3:30-5pm; Thursday 11am-12:30pm

This course introduces basic mathematical tools to economics Ph.D. students. The text is Michael Carter, Foundations of Mathematical Economics, 2001 MIT Press. It is available at the BU Barnes and Noble bookstore.

There are more than 800 exercises in the text, and they form an integral part of the book. Solutions of all exercises are available for download from the author's web site.

Students will be given assignments taken from the exercises in the text. Solutions to the assignments will be explained at discussion sections. Assignments are not to be turned in, although the teaching assistant is happy to discuss with students about their own solutions. Working out the solutions of exercises is important.

Grading of the class is based on five quizzes, two midterms and one final exam. All quizzes, midterms, and final are closed-book tests.

Grading Percentages:

Midterm One:	25%
Midterm Two:	25%
Final Exam:	40%
Quizzes:	10% (= 5 * 2%)

Each quiz is given at a random date without prior notification or announcement, in a regular class; each will consist of two questions taken from the assignments. If a student misses a quiz due to medical reasons, the points in the other quizzes will be prorated. For example, if a student misses Quiz One due to a medical emergency, but manages to take all remaining quizzes, then each of Quizzes Two to Five carries 2.5%.

Important dates:

Midterm I:	Wednesday October 10, at regular class time.
Midterm II:	Wednesday November 14, at regular class time.
Final exam:	Thursday December 20, 9-11am

The course will follow the general outline of the text:

1. Sets and Spaces
2. Functions
3. Linear Functions
4. Smooth Functions
5. Optimization
6. Comparative Statics

Clearly, the materials in the text and the exercises cannot be completely covered in a one-semester course. Many parts in the text will not be discussed in class. The discussions will often draw on common economic models.