

Department of Economics
Hacettepe University
ECO138 (02) Mathematics for Economists II
Spring 2014-2015

Course Information

Instructor: Dr. Shihomi Ara-Aksoy
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Time/Place: **Tuesdays, 13:00 – 15:45 @ D9**

Office Hours: Tuesdays: 15:45 - 16:45, or by appointment

Course Website: <http://yunus.hacettepe.edu.tr/~sara>, <http://www.shihomiaksoy.org>

Course Description/Objectives

This course covers the fundamental mathematical concepts used in economics. Topics covered during this semester include the basic concepts of interest rates and present values, functions of many variables including partial derivatives, some tools used in comparative statics (Chain Rule, Implicit Differentiation, Types of Functions etc.), multivariable and constrained optimization techniques, and matrix algebra used in economics. Since the mathematical concepts taught in this class will be the foundation of other economics courses, make sure to understand each subject matter clearly.

Course Requirements

1	Midterm Exam I	30%
2	Midterm Exam II	30%
3	Final Exam	40%

Remarks:

- Bring a calculator to each class.
- In the end of each chapter, I will assign “Homework” from the exercises questions of the textbook. You are NOT required to hand them in. However, you are responsible for going over each question. Consider them as the practice questions for the exams.

Textbook

Knut Sydsaeter and Peter Hammond, *Essential Mathematics for Economics Analysis*, third edition, Prentice Hall, 2008.

Make-up Exam

No makeup exam will be given unless a legally acceptable document (such as medical report) is submitted. Validity of such document will be examined.

Academic Misconduct

Please read the relevant material at <http://www.plagiarism.org/>. Detected plagiarism throughout the coursework will cause the student to be punished according to the University rules. The students are expected to know what plagiarism is and lack of knowledge is not an acceptable excuse.

Disabilities

Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific need.

Course Schedule

Week	Date	Topic	Readings
Week 1	Feb. 17	<i>Differential Equation Interest Rates and Present Values</i>	Ch.9, 10
Week 2	Feb. 24	<i>Functions of Many Variables</i>	Ch. 11
Week 3	Mar. 3	<i>Functions of Many Variables</i>	Ch. 11
Week 4	Mar. 10	<i>Tools for Comparative Statics</i>	Ch. 12
Week 5	Mar. 17	<i>Tools for Comparative Statics</i>	Ch. 12
Week 6	Mar. 24	<i>Multivariable Optimization</i>	Ch. 13
Week 7	Mar. 31	<i>Multivariable Optimization</i>	Ch. 13
Week 8	TBA	Midterm Exam I	
Week 9	Apr. 14	<i>Constrained Optimization</i>	Ch. 14
Week 10	Apr. 21	<i>Constrained Optimization</i>	Ch. 14
Week 11	Apr. 28	<i>Matrix and Vector Algebra</i>	Ch. 15
Week 12	May 5	<i>Matrix and Vector Algebra</i>	Ch. 15
	TBA	Midterm Exam II	
Week 13	May 12	<i>Determinants and Inverse Matrices</i>	Ch. 16
Week 14	May 19	<i>No Class</i>	
	TBA	Final Exam	