## Department of Economics Hacettepe University

# ECO137 (03) Mathematics for Economists I

Winter 2009

# **Course Information**

Instructor: Dr. Shihomi Ara-Aksoy
Office: Department of Economics

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Time/Place: Fridays, 13:00 – 15:45 @ D 9

**Office Hours:** Wednesdays: 17:00-18:00, Fridays: 16:00-17:00, 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. Different types of functions and their properties, differentiation and derivatives used in practice, the logic of optimization, integration, the concept of prevent values will be discussed. Many of the mathematical concepts might be already familiar to you from your high school mathematics classes. In this course, however, try to focus on <u>understanding</u> each concept, rather than memorizing the formulas. The mathematical concepts taught in this class will be the foundation of other economics courses. Therefore, make sure to understand each subject matter clearly.

### **Course Requirements**

1	Two Quizzes (5% each)
2	Two Midterm Exam (25% each)
3	Final Exam (40%)

### **Class Participation**

- Although the attendance will not be taken, attend the class regularly. The quizzes will be conducted without any prior notice.
- Bring a <u>calculator</u> to each class. Especially for the quizzes, you will need one.
- 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 quizzes and exams.
- There will NOT be any make-up quiz.

**Exams** 1<sup>st</sup> Midterm Exam: To be announced

2<sup>nd</sup> Midterm Exam: To be announced Final Exam: To be announced

#### **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 <a href="http://www.plagiarism.org/">http://www.plagiarism.org/</a>. 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	Торіс	Readings
Week 1	Oct. 9	Introduction	
Week 2	Oct.16	Functions of One Variable	Ch. 4
Week 3	Oct. 23	Properties of Functions	Ch. 5
Week 4	Oct. 30	Differentiation	Ch. 6
Week 5	Nov. 6	Derivatives in Use	Ch. 7
Week 6	Nov. 13	Derivatives in Use	Ch. 7
Week 7	TBA	1 <sup>st</sup> Midterm Exam	
Week 8	Nov. 27	No Class	
Week 9	Dec. 4	Single-Variable Optimization	Ch. 8
Week 10	Dec. 11	Single-Variable Optimization	Ch. 8
Week 11	Dec. 18	Integration	Ch. 9
		2 <sup>nd</sup> Midterm Exam	
Week 12	Dec. 25	Integration	Ch. 9
Week 13	Jan. 1	No Class	
Week 14	Jan. 8	Interest Rates and Present Values	Ch. 10
	TBA	Final Exam	