

Department of Economics
Hacettepe University
ECO137 Mathematics for Economists I
Fall 2019/2020

Course Information

Instructor: Dr. Shihomi Ara-Aksoy
Office: Department of Economics
Email: sara@hacettepe.edu.tr
Time/Place: **Mondays, 9:00 – 11:50 @ D10**
Office Hours: Tuesday 11:15-12:15 or by appointment
Course Website: <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 present 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 understanding 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	4 Quizzes (20%)
2	Midterm Exam (40%)
3	Final Exam (40%)

Class Participation

Quizzes will be conducted unannounced. The objectives of the quizzes are 1) to take attendance, 2) to understand the level of comprehension and 3) to make you study for the class regularly. If you copy someone's work, you will lose all quiz points (= 20%). No make-up will be provided for quizzes.

Important: If you are taking this course for the second or more times and cannot attend the course due to the conflict of course schedule, you have opportunities to take the same quiz between 11:45-12:00 at A3 on the same day. No other make-up will be provided.

Textbook

Knut Sydsaeter and Peter Hammond, *Essential Mathematics for Economics Analysis*, 3rd or 4th edition, Prentice Hall, 2008, 2012.

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	<i>Topic</i>	Readings
Week 1	<i>Introduction</i>	
Week 2	<i>Functions of One Variable</i>	Ch. 4
Week 3	<i>Functions of One Variable</i>	Ch. 4
Week 4	<i>Properties of Functions</i>	Ch. 5
Week 5	<i>Properties of Functions</i>	Ch. 5
Week 6	<i>Differentiation</i>	Ch. 6
Week 7	<i>Derivatives in Use</i>	
Week 8	Midterm Exam	
Week 9	<i>Derivatives in Use</i>	Ch. 7
Week 10	<i>Derivatives in Use</i>	Ch. 7
Week 11	<i>Single-Variable Optimization</i>	Ch. 8
Week 12	<i>Single-Variable Optimization</i>	Ch. 8
Week 13	<i>Integration</i>	Ch. 9
Week 14	<i>Integration</i>	Ch. 9
	Final Exam	