Department of Economics
Hacettepe University

ECO105 Mathematics for Economists I

Fall 2021/2022

Course Information

Instructor: Dr. Shihomi Ara-Aksoy
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Time: **Tuesdays, 13:00 - 15:50 (A2)**
Office Hours: **Mondays 13:00-14:00 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 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 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	**6 Attendance Quizzes (total 10%)***
2	**2 Quizzes (total 10%)****
3	**Midterm Exam (40%)**
4	**Final Exam (40%)**

***6 Attendance Quizzes**
It will be a short quiz testing your comprehension of each class and the previous week's lecture as well as the attendance. There will be no make-up for these quizzes.
****2 Quizzes**
These quizzes will cover the contents discussed in the earlier classes. These quizzes will be conducted unannounced. No make-up will be provided for these quizzes.

Textbook
Knut Sydsaeter and Peter Hammond, *Essential Mathematics for Economics Analysis*, Prentice Hall. (Any edition is fine.)

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