

Department of Economics
Hacettepe University
ECO138 Mathematics for Economists II
Spring 2019-2020

Course Information

Instructor: Dr. Shihomi Ara-Aksoy
Office: Department of Economics
Email: sara@hacettepe.edu.tr

Time/Place: Tuesdays, 13:00-15:50 @ D10

Office Hours: Fridays: 11:45 - 12:30, 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	40%
2	Final Exam	40%
3	4 Quizzes*	Total 20%

Important notes on Quizzes:

**There will not be any attendance points for the quiz.*

**There is no make-up quiz provided for any reason.*

**If you copy someone's work or offer someone to copy your quiz for once, you will lose entire quiz point (20 points). No negotiation. Don't copy. Don't show.*

Textbook

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

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.

Caution! *Make-ups and Re-take exams are designed to be more difficult than the regular exams due to the extra time the students could earn for exam preparation. Try your best to take the exams on time.*

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>Integration</i>	Ch. 9
Week 2	<i>Integration</i>	Ch. 9
Week 3	<i>Matrix and Vector Algebra</i>	Ch. 15
Week 4	<i>Matrix and Vector Algebra</i>	Ch. 15
Week 5	<i>Determinants and Inverse Matrices</i>	Ch. 16
Week 6	<i>Functions of Many Variables</i>	Ch. 11
Week 7	<i>Functions of Many Variables</i>	Ch. 11
Week 8	Midterm Exam	
Week 9	<i>Tools for Comparative Statics</i>	Ch. 12
Week 10	<i>Tools for Comparative Statics</i>	Ch. 12
Week 11	<i>Multivariable Optimization</i>	Ch. 13
Week 12	<i>Multivariable Optimization</i>	Ch. 13
Week 13	<i>Constrained Optimization</i>	Ch. 14
Week 14	<i>Constrained Optimization</i>	Ch. 14