Department of Economics
Hacettepe University

ECO106/138 Mathematics for Economists II

Spring 2021-2022

Course Information

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

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

Office Hours: Thursdays, 13:00 – 14:00

Course Website: **http://evdekal.hacettepe.edu.tr ; http://www.shihomiaksoy.org**

Course Description/Objectives
This course covers the fundamental mathematical concepts used in economics. Topics covered during this semester include integrals, matrix algebra, 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 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	**2 Quizzes***	**10%**
4	**4 Attendance Quiz**	**10%**

4 Attendance Quizzes
It will be conducted in the form of "Exam" on HUZEM platform. It will be a short quiz testing your comprehension of each class as well as the attendance (almost) every week. 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 in the form of "Exam" on HUZEM platform. No make-up will be provided for these quizzes.

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	*Topic*	Readings
Week 1	*Integration*	Ch. 9
Week 2	*Matrix and Vector Algebra*	Ch. 15
Week 3	*Matrix and Vector Algebra*	Ch. 15
Week 4	*Determinants and Inverse Matrices*	Ch. 16
Week 5	*Functions of Many Variables*	Ch. 11
Week 6	*Functions of Many Variables*	Ch. 11
Week 7	*Tools for Comparative Statics*	Ch. 12
Week 8	**Midterm Exam**	
Week 9	*Tools for Comparative Statics*	Ch. 12
Week 10	*Multivariable Optimization*	Ch. 13
Week 11	*Multivariable Optimization*	Ch. 13
Week 12	*Constrained Optimization*	Ch. 14
Week 13	***NO Class (Bayram)***	
Week 14	*Constrained Optimization*	Ch. 14