

Antalya Bilim University
Department of Economics, Econ 1304
Mathematical Economics II
Spring 2024 – 2025

Class Time & Place: Wednesday – 09:00 – 12:00 (BG – 03)

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(A2 – 44)

Welcome to the course. This course is designed to develop mathematical thinking in the Economics discipline and aims students to be able to apply various mathematical concepts to economical problems.

Course book:

Basic Mathematics for Economists, 3/E Mike Rosser
Further problems will be provided by lecturer.

Academic Honesty and Plagiarism

Plagiarism and cheating is strictly forbidden. Each task you submit must be totally yours. Otherwise, university rules and regulations will be applied.

Attendance

Attendance is highly encouraged to the course. Actual physical presence (with any resulting verbal interaction between instructor and student) can be as necessary to understanding the course's subject matter as completing homework assignments and exams. Do not forget that this course requires your effort on regular basis. Otherwise it will be very difficult to catch up if not impossible. Do not miss any classes unless you have a very serious, legitimate reason! If you do miss any classes get lecture notes from a friend as there might be changes in lecture plans and explorations. In addition, please contact me for any possible blind spot. If you miss any exam, be aware that you need to submit legitimate excuse not to get zero from the exam.

Promptness

Make sure that you come to class fairly enough before the instructor comes. Entering the classroom/LMS after the instructor's presentation has started can be distracting both to the instructor as well as to other students.

Other Class Disruptions

Unless there is an emergency stay seated during the lecture. Avoid distracting movements, talking to each other, eating, drinking and electronics. You need to pay attention to the lecture.

Assessment Criteria:

- 1) **Attendance and participation (10%):**
- 2) **Midterm (30%):** Students are responsible for all class material covered until the midterm exam.
- 3) **Homework (20%)**
- 4) **Final exam (40%):** This exam is cumulative and will focus on all units and topics studied throughout the course, but emphasis will be after midterm.

Please note that the planned course content may be subject to revision.

Note: The course is heavily dependent on Calculus concepts and it is presumed that the students have already grasped the basic knowledge.

Course Schedule

WEEK 1 Introduction

WEEK 2 Linear and Quadratic Equations

WEEK 3 Systems of Equations

WEEK 4 Matrix Algebra

WEEK 5 Matrix Algebra – cont

WEEK 6 Differentiation

WEEK 7 Differentiation – cont

WEEK 8 Midterm Exam

WEEK 9 Unconstrained Optimization

WEEK 10 Constrained Optimization

WEEK 11 Integration

WEEK 12 Integration – cont

WEEK 13 Difference Equations

WEEK 14 Differencial Equations

WEEK 15 Review

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