Antalya Bilim University
Department of Economics, Econ 1303
Mathematical Economics I
Fall 2021

Class Time & Place: TBA
Naciye Kınık Keresteci
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(A2-31)

Welcome to the course. This course is designed to develop basic mathematical knowledge for Economics students in various fields of Mathematics.

Course book:

Essential Mathematics for Economic Analysis, 5/E Knut Sydsaeter, Peter Hammond, Arne Strom, Andrés Carvajal

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 in Econ 1303. 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.

Form No: ÜY-FR-0627 Yayın Tarihi:03.05.2018 Değ.No:0 Değ. Tarihi:-

Promptness

Make sure that you come to class fairly enough before the instructor comes. Entering the classroom 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.

Assessment Criteria:

1) **Attendance and participation (10%)**
2) **Midterm (40%):** Students are responsible for all class material covered until the midterm exam.
3) **Final exam (50%)**: This exam is cumulative and will cover all units and topics studied throughout the course, but emphasis will be after midterm.

Please note that you are required to receive a grade of 50 out of 100 to be able to pass the course!
The assessment criteria might change due to pandemic regulations.

Course Schedule

WEEK 1 Introduction to the Course
WEEK 2 Systems of Linear Equations, Row Reduction and Echelon Forms
WEEK 3 Vector Equations, The Matrix Equation
WEEK 4 Solution Sets of Linear Systems, Linear Independence
WEEK 5 Linear Transformations
WEEK 6 Matrix Operations, The Inverse of a Matrix
WEEK 7 Characterizations of Invertible Matrices, Partitioned Matrices
WEEK 8 Midterm
WEEK 9 Matrix Factorizations, The Leontief Input-Output Model
WEEK 10 Subspaces of IR^n
WEEK 11 Dimension and Rank, Determinants
WEEK 12 Simplex Method
WEEK 13 Cramer's Rule, Volume and Linear transformations
WEEK 14 Vector Spaces, Subspaces, Null Spaces, Linearly Independent Sets, Bases