

ECON 505 - QUANTITATIVE METHODS - FALL 2024/2025
SABANCI UNIVERSITY

Instructor: Erdal Aydın

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Lectures: Monday, 14:40 - 17:30

Recitation: Wednesday, 13:40 - 14:30

Office Hours: Monday, 13:00 - 14:00

COURSE OVERVIEW

This course is designed to rigorously present topics in probability theory, random variable theory, random samples, estimation, and hypothesis testing.

TEXTBOOKS

The primary textbook for this course is *Statistical Inference* by George Casella and Roger L. Berger, 2nd Edition.

REQUIREMENTS AND GRADING

- Assignments: 10%
- Midterm: 40%
- Final: 50%

All exams will be held face-to-face on campus.

MAKE-UP EXAMS

If a student misses an exam, they must present a medical report from Sabancı Medline covering the exam date. Without a valid excuse, the missed midterm will result in its weight being transferred to the final exam. No make-up exam will be provided for the midterm. If a student misses the final exam with a valid medical report, a make-up exam will be offered. Without the report, the missed final will result in a grade of “zero.” There will be no retake exam (*Bütünleme*). Students missing both the midterm and final will receive an “NA” grade.

Please note that the make-up exam will be more challenging than the regular final exam. Students are advised to prepare thoroughly for the regular final exam.

SCHOLASTIC DISHONESTY POLICY

The definition of scholastic dishonesty is provided in the rules and regulations of Sabancı University. In cases of scholastic dishonesty, no credit will be given for the work in question. Cheating during exams will result in an F for the course. All instances of scholastic dishonesty will be reported to the university for disciplinary action.

TENTATIVE COURSE TOPICS OUTLINE

- **Topic 1:** Probability Theory (Chapter 1)
 - **Topic 2:** Transformation and Expectations (Chapter 2)
 - **Topic 3:** Common Families of Distributions (Chapter 3)
 - **Topic 4:** Multiple Random Variables (Chapter 4)
 - **Topic 5:** Properties of Random Samples (Chapter 5)
 - **Topic 6:** Point Estimation (Chapter 7)
 - **Topic 7:** Hypothesis Testing (Chapter 8)
 - **Topic 8:** Introduction to Regression Analysis
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