



**ECON 505- QUANTITATIVE METHODS-FALL-2023/24**

**SABANCI UNIVERSITY**

Instructor: Erdal Aydın

E-mail: [erdalaydin@sabanciuniv.edu](mailto:erdalaydin@sabanciuniv.edu)

Office: FASS 2121

Lectures: Mon: 14:40-17:30

Recitation: Wed: 13:40- 14:30

### **COURSE OVERVIEW**

This course aims to present probability theory, random variable theory, random sample, estimation, and hypothesis testing topics in a rigorous way.

### **TEXTBOOKS**

The textbook is Statistical Inference by George Casela and Roger L. Berger, Second Edition.

### **REQUIREMENTS AND GRADING**

Assignments: %10

Midterm : %40

Final: %50

All the exams will be face-to-face in the campus.

## **MAKE UP EXAMS**

If a student misses an exam, then s/he has to have a medical report by Sabanci Medline covering the exam date. Otherwise, it will be counted as “zero.” With that valid excuse, the missed midterm weight will be transferred to the final weight. That is, there will be no make-up exam for the midterm. If a student misses the final exam with a medical report by Sabanci Medline covering the exam date, then a make-up will be given for the final exam. Without that report, it will be counted “zero” whatsoever. No retake exam (Bütünleme) will be offered. Any student who misses both exams will receive “NA” whatsoever.

As the make-up will be harder than the regular final exam, students are strongly advised to treat themselves well in the final exam dates.

## **SCHOLASTIC DISHONESTY POLICY**

The definition for scholastic dishonesty is given in the rules and regulations of the Sabanci University. In the case of scholastic dishonesty, no credits will be given for that particular work. Cheating during written work will result in an F for the course. All incidents of scholastic dishonesty will be reported to 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 Sample (Chapter 5)

**Topic 6:** Point Estimation (Chapter 7)

**Topic 7:** Hypothesis Testing (Chapter 8)

**Topic 8:** Introduction to Regression Analysis