



## ECON 506 - Econometrics - Spring 2024

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**Course Instructor:** Cavit Baran                      **Email:** cavit.baran@sabanciuniv.edu  
**Course Assistant:** Muhammed Dönmez

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**Lecture hours and room:** FASS 1080 - Mon 13:40-16:30

**Office hours and room:** FASS 1034 - Wed 16:00-17:00

**Recitation hours and room:** FASS 1081 - Thu 17:40-18:30

**Course objectives:** Main objective of this course is to introduce students to the fundamental econometric techniques, including ordinary least squares, instrumental variables, and maximum likelihood estimation. The course will present both theoretical building blocks and applications of various econometric models. By the end of this course, students should build theoretical and practical background required to conduct econometric analysis.

**Recommended textbooks and readings:**

1. Hayashi, "Econometrics", Princeton University Press
2. Greene, "Econometric Analysis", Prentice Hall

In addition, selected articles and lecture slides will be provided by the instructor.

**(Tentative) Course Outline**

1. Classical Regression Model
2. Ordinary Least Squares (OLS)
3. Generalized Least Squares (GLS)
4. Instrumental Variables (IV)
5. Generalized Method of Moments (GMM)
6. Maximum Likelihood Estimation (MLE)

7. Qualitative Response (QR) and Limited Dependent Variable Models

**Assessment Criteria and Course Policy**

1. Regular class attendance is required for this course.
2. Assignments (25%): There will be 5 problem sets. Some problems will require use of actual data. Students are expected to use either Stata or R for these parts.
3. Midterm (30%): There will be **one in-class** midterm exam. The exam date will be determined based on course progress.
4. Final (45%): There will be **one written** final exam which will cover all the topics discussed in the lectures. The exam date will be announced by the University.