

**Antalya Bilim University**  
**Department of Economics**  
**ECON 1302: Econometrics II**  
**Spring 2024-2025**

Class Time: Tuesdays 09:00-12:00 – B1/04

You can contact me via e-mail

Assist. Prof. Dr. Firat Yilmaz

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(A2-42)

This course builds on third-year Econometrics I course and focusses on how to do econometric analysis using R, a free and very powerful statistical computing software. The course covers linear regression models, hypothesis testings, non-linear models as well as time series regression models.

**Note:** Please bear in mind that this syllabus may be subject to change.

**Textbooks:**

C. Colonescu (2016). Principles of Econometrics with R. Can be downloaded from <https://bookdown.org/ccolonescu/RPoE4/>.

Introduction to Econometrics with R. <https://scpoecon.github.io/ScPoEconometrics/>

Heiss, Florian (2016) Using R for Introductory Econometrics.

**Learning Outcomes**

The aim of this course is to provide students with hands-on experience in applying contemporary econometric methods. After completing this course, you will be able to:

- develop an understanding of how one chooses an econometric model to analyse the data at hand;
- use the chosen model to analyse the data using statistical software;
- interpret the results obtained;
- able to critically assess empirical work produced and published by researchers.

### **Academic Honesty and Plagiarism**

Plagiarism is using the words or ideas of others and presenting them as your own. Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. Although plagiarism is well established in Turkish educational system, you will be punished heavily if you are caught do it.

### **Assessment Criteria:**

- 1) **Midterm Exam: 40%**
- 2) **Final Exam: 60%**

### **Course Schedule**

**WEEK 1 Introduction to R**

**WEEK 2 The Simple Linear Regression Model**

**WEEK 3 Interval Estimation and Hypothesis Testing**

**WEEK 4 Prediction**

**WEEK 5 The Multiple Regression Model**

**WEEK 6 Further Inference in Regression Model**

**WEEK 7 Using Indicator Variables**

**WEEK 8 Midterm**

**WEEK 9 Heteroskedasticity**

**WEEK 10 Time Series**

**WEEK 11 Simultaneous Equations**

**WEEK 12 Non – Stationary Time Series**

**WEEK 13 VEC – VAR Models**

**WEEK 14 ARDL Models**

**WEEK 15 Review**