

**Antalya Bilim University**  
**Department of Economics, Econ 1403**  
**Time Series Analysis and Forecasting**  
**Fall 2021**

Class Time & Place: TBA  
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(A2-31)

Welcome to the course. Time Series Analysis and Forecasting will be the next step for your data analysis journey. Students will examine a different dimension of the data during the course, which is the time dimension. Instead of looking for the relationship between different variables, we will check if there is a certain pattern making future predictions easier for us for a variable. Later we will extend this idea to more variables case. EViews is the software tool assisting to Time Series Analysis and Forecasting.

**Course book:**

Elements of Forecasting, 4/E by Francis X. Diebold. Students are responsible to get a hard copy of the course book.

**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 1403. 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.

**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. You need to pay attention to the lecture.

### **Assessment Criteria:**

- 1) **Presentation (20%):** Students are required to prepare presentations and present them in class. They may download data from TUIK, OECD, world bank or another resource depending on their interests.
- 2) **Midterm (30%):** Students are responsible for all class material covered until the midterm exam.
- 3) **Final exam (50%):** This exam is cumulative covering all units and topics studied throughout the course, but emphasis will be on the topics covered after the midterm.

Please note that you are required to receive a grade of 50 out of 100 to be able to pass the course!

### **Course Schedule**

**WEEK 1** Introduction to the Course

**WEEK 2** Smoothing methods

**WEEK 3** Smoothing methods

**WEEK 4** Deterministic trends and seasonality

**WEEK 5** Deterministic trends and seasonality

**WEEK 6** Structural models

**WEEK 7** Structural models

**WEEK 8 Midterm Exam**

**WEEK 9** Non-structural models

**WEEK 10** Combining forecasts

**WEEK 11** Combining forecasts

**WEEK 12** Miscellaneous methods and forecasting in practice

**WEEK 13** Miscellaneous methods and forecasting in practice

**WEEK 14 Review**