TOBB ETU / FALL 2019
ECON 253-01 STATISTICS

Instructor   **:** Asena Caner
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Class Hours : Tuesday 10:30-12:20 (Room 372),   Friday 08:30 -10:20 (Room 177)
Office Hours : By appointment

(Do not forget to write in the subject of your e-mail messages "ECON 253-FirstName-LastName". Messages without this subject may get lost in the pile.)

Course Objective:

The course introduces the main concepts of probability theory and statistics. Upon completing the course, the students should

- be able to identify different types of data and generate descriptive statistics of the data,
- have gained a basic understanding of probability and random variables,
- have learned the basic properties of the commonly used discrete and continuous distributions,
- have learned what sampling is and what a sampling distribution tells us, and
- have learned the basics of statistical estimation (point and interval estimation) and statistical testing of hypotheses.

Although the course has no formal prerequisites, it uses mathematical notation to express concepts. Therefore, the students should be able to properly use mathematical notation and they are expected to know basic algebra. During the semester, the students are expected to follow the lectures, participate in the assignments and in-class discussions, and do their best to master the material.

Textbook:

P. Newbold, W.L. Carlson, B. Thorne: Statistics For Business and Economics, Sixth Edition, Prentice Hall.

Students are highly recommended to read the textbook. The library has several copies of the fifth edition of the book on reserve.

A website contains valuable supplementary material:
http://wps.prenhall.com/bp_newbold_statbuse_6/53/13699/3507189.cw/index.html

Evaluation:

Homeworks	10%
Midterm exam I	30%
Midterm exam II	40%
Final exam	20%

(The day and time of the exams will be determined and announced by the university administration. Please check your e-mail regularly. Exams may be given as early as the 4th week of the semester.)

<u>**Course Plan:**</u> (Chapter numbers are from the textbook.)

Week 1   Describing Data (Chapter 2)
Week 2   Describing Data (Chapter 3)
Week 3   Probability (Chapter 4)
Week 4   Probability (Chapter 4)
Week 5   Probability (Chapter 4) & Discrete Random Variables (Chapter 5)
Week 6   Discrete Random Variables (Chapter 5)
Week 7   Continuous Random Variables (Chapter 6)
Week 8   Continuous Random Variables (Chapter 6)
Week 9   Sampling and Sampling Distributions (Chapter 7) & Estimation (Chapter 8)
Week 10   Estimation (Chapter 9)
Week 11   Hypothesis Testing (Chapter 10)
Week 12   Hypothesis Testing II (Chapter 11)

<u>**Class Rules:**</u>

1. **Attendance:** Attendance to at least 70% of lectures is compulsory. (Students whose absenteeism is >30% get the letter grade "U" and cannot take the final exam or its make-up.) Also, students are required to come to class before lecture starts and leave class after the lecture ends so as not to disturb orther students.

2. **Disruptive Behaviors:** Disruptive behaviors, including excessive talking, arriving late to class, sleeping, reading newspapers, using unauthorized electronic devices during class, are not permitted. Students with repetitive and disruptive behavior may be removed from class. In case the disruption continues and prohibits the continuation of class, the lecture will be ended, and the students will be responsible from learning all material that was scheduled to be covered during the (uncompleted) lecture.

3. **Plagiarism, Cheating and Collusion:** Students are expected to refrain from giving or receiving aid in examinations, or in assignments. Furthermore, they are expected to do their share and take an active role in seeing to it that others as well as themselves obey these rules. Plagiarism and cheating are serious issues; they will not be tolerated. Grade penalty will be issued (zero on exam or assignment) should you be found responsible for academic dishonesty. Further punishment will be given according to the disciplinary rules of the university. (Plagiarism is defined as the use, without giving reasonable and appropriate credit to or acknowledging the author or source, of another person's original work, whether such work is made up of code, formulas, ideas, language, research, strategies, writing or other forms.)

4. **Exams:** The exams will cover all material that is taught during the class or assigned to students.

5. **Make-up Exams:** It is best for the students to take exams on time. A make-up will be given under special circumstances and only if the "Fakülte Yönetim Kurulu" approves of the student's excuse. Make-up exams will be harder than regular exams. The make-up exam will be given at the end of the semester and it will cover all topics discussed during the semester. There will be no make-up of make-up exams.

6. **Grade Changes:** All students have the right to view their graded exams and assignments. At the end of the semester, a grade change will be made only in the unlikely case of an error of fact, such as a wrong entry to the computer or a summation mistake. Any other requests for a higher grade will be automatically denied.