## Department of Economics Hacettepe University

## ECO240 Statistics II

Spring 2020-2021

## **Course Information**

Instructor: Dr. Shihomi Ara-Aksoy
Office: Department of Economics
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Class Time/Place: Mondays 9:00 – 11:50 @ Zoom

**Office Hours:** by appointment

Course Website: http://evdekal.hacettepe.edu.tr, http://www.shihomiaksoy.org

### **Course Description/Objectives**

The purpose of this course is to introduce important concepts of statistics, such as sampling, estimation, hypothesis testing and regression analysis. Students are expected to learn the methods of inferential statistics, the logics of hypothesis testing and the basic concept of regression analysis. The topics covered in this class will be important building blocks especially for the econometrics classes which students will take in the third year. Make sure to understand each concept clearly. Students will also learn how to use "R" program for basic statistics problems.

**Course Requirements** 

1	Midterm Exam	30 %
2	Final Exam	40 %
3	1 R Homework	10 %
4	2 Quizzes	10 %
5	10 Attendance Quizzes	10%
Extra	Data Camp Assignments/	
<b>Points</b>	Extra Exercises which may be assigned during the classes	

## \*10 Attendance Quizzes

It will be conducted in the form of "Exam" on HUZEM platform. It will be a short quiz testing your comprehension of each class as well as the attendance (almost) every week. There will be no make-up for these quizzes.

#### \*\*2 Quizzes

These quizzes will cover the contents discussed in the earlier classes. These quizzes will be conducted unannounced in the form of "Exam" on HUZEM platform. No make-up will be provided for these quizzes.

#### **Textbook**

(**Required**) **Download** the textbook for FREE "OpenIntro Statistics 3rd Edition" from <a href="https://www.openintro.org/stat/textbook.php?stat\_book=os">https://www.openintro.org/stat/textbook.php?stat\_book=os</a>

<sup>&</sup>lt;Important notes on R Homework>

<sup>\*</sup>This R Homework is to be conducted by each student. Not a group homework assignment.

<sup>\*</sup>Do not copy/discuss/show/send e-mails with any students.

<sup>\*</sup>If you are caught copying, you will be automatically given 0 point. BOTH COPIED AND BEING COPIED WILL GET ZERO. NO NEGOTIATION.

Paul Newbold, William Carlson and Betty Thorne, *Statistics for Business and Economics*, Seventh edition, Pearson Education, 2009. (Any edition) [Optional]

## Make-up Exam

**No makeup exam will be given** unless a legally acceptable document (such as medical report) is submitted. Validity of such document will be examined.

**Caution!** Make-ups and Re-take exams are designed to be more difficult than the regular exams due to the extra time the students could earn for exam preparation. Try your best to take the exams on time.

#### **Grading**

Final grade will be given entirely based on your scores under a fair and single grading policy. None of students' "special situations/needs" (e.g. scholarship, graduation, financial condition, family situation etc.) will affect your grade. No exception. If you need a certain grade, work hard.

## **Academic Misconduct**

Please read the relevant material at <a href="http://www.plagiarism.org/">http://www.plagiarism.org/</a>. Detected plagiarism throughout the coursework will cause the student to be punished according to the University rules. The students are expected to know what plagiarism is and lack of knowledge is not an acceptable excuse.

#### **Disabilities**

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor privately to discuss your specific need.

# **Course Schedule**

Week	Topic	OpenIntro Reading	Newbold Reading
1	Distributions of Sample Statistics (1)	Ch. 4	Ch. 6
2	Distributions of Sample Statistics (2)	Ch. 4	Ch. 6
3	Confidence Interval Estimation: One Population (1)	Ch. 4, 5	Ch. 7
4	Confidence Interval Estimation: One Population (2)	Ch. 4, 5	Ch. 7
5	Hypothesis Tests of a Single Population (1)	Ch. 4, 5	Ch. 9
6	Hypothesis Tests of a Single Population (2)	Ch. 4, 5	Ch. 9
7	Confidence Interval Estimation: Further Topics	Ch. 6	Ch. 8
8	Midterm Exam		
9	Two Population Hypothesis Tests (1)	Ch. 6	Ch. 10
10	Two Population Hypothesis Tests (2)	Ch. 6	Ch. 10
11	Two Variable Regression Analysis (1)	Ch. 7	Ch. 11
12	Two Variable Regression Analysis (2)	Ch. 7	Ch. 11
13	Two Variable Regression Analysis (3)	Ch. 7	Ch. 11
14	Comparison of Subpopulation Means	Ch. 5	Ch. 15