Department of Economics
Hacettepe University

# ECO240 Statistics II
*Spring 2011*
## Course Information

**Instructor:**        Dr. Shihomi Ara-Aksoy
**Office:**             Department of Economics
**Office Phone:**    297 86 50 / ext 117
**Email**:              sara@hacettepe.edu.tr

**Class Time/Place:**    **Fridays 9:00 – 11:45 @ D12**

**Office Hours:**       Tuesdays and Wednesdays 13:00 - 14:00, or by appointment

**Course Website:**      **http://yunus.hacettepe.edu.tr/~sara,  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. Analysis of Variance (ANOVA) and a brief introduction to Decision Theory will also be discussed towards the end of the semester. 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

| | |
|---|---|
| **Midterm Exam I** | **25 %** |
| **Midterm Exam II** | **25 %** |
| **Final Exam** | **40 %** |
| **Homework** | **10 %** |

## Textbook

Paul Newbold, William Carlson and Betty Thorne, *Statistics for Business and Economics*,  Seventh edition, Pearson Education, 2009.  (If you have 6th edition, you do not have to buy 7th edition.)

## Homework

Four homework assignments are planned to be assigned. The objective of the assignments is to practice the concepts learned in the classes by using a free software "R". Homework questions will be posted on the course web site with the specific due dates. **No late homework will be accepted.**

## 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.

## 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. If you need a certain grade, work hard.

**Academic Misconduct**
Please read the relevant material at http://www.plagiarism.org/. 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

| Class | Date | Topic | Readings |
|-------|------|-------|----------|
| 1 | Feb.17 | *Distributions of Sample Statistics (1)* | Ch. 6 |
| 2 | Feb.24 | *Distributions of Sample Statistics (2)* | Ch. 6 |
| 3 | Mar.2 | *Confidence Interval Estimation: One Population (1)* | Ch. 7 |
| 4 | Mar.9 | *Confidence Interval Estimation: One Population (2)* | Ch. 7 |
| 5 | Mar.16 | *Confidence Interval Estimation: Further Topics* | Ch. 8 |
| 6 | Mar.23 | *Hypothesis Tests of a Single Population (1)* | Ch. 9 |
| 7 | Mar.30 | *Hypothesis Tests of a Single Population (2)* | Ch. 9 |
| 8 | TBA | **Midterm Exam I** | |
| 9 | Apr. 13 | *Two Population Hypothesis Tests (1)* | Ch. 10 |
| 10 | Apr. 20 | *Two Population Hypothesis Tests (2)* | Ch. 10 |
| 11 | Apr. 27 | *Two Variable Regression Analysis (1)* | Ch. 11 |
| 12 | May 4 | *Two Variable Regression Analysis (2)* | Ch. 11 |
| | TBA | **Midterm Exam II** | |
| 13 | May 11 | *Comparison of Subpopulation Means (1)* | Ch. 15 |
| 14 | May 18 | *Comparison of Subpopulation Means (2)* *Introduction to Decision Theory* | Ch. 15, 18 |
| | TBA | **Final Exam** | |