

# BUS 274: Further Statistics for Business

Spring 2015

## SYLLABUS

**Prerequisite:** BUS 273

**Contents:**

Review of selected parts of BUS 273

**Part II: Probability and stochastic models (continued)**

8. More about random variables and their distributions

**Part III: Statistical inference**

9. Estimation: point estimation; confidence intervals

10. Introduction to hypothesis testing

11. Parameter tests for one population

12. Parameter tests for two populations

**Part IV: Further topics**

13. Contingency tables and independence

14. Correlation

15. Simple linear regression

16. Multiple Regression

**Learning Outcomes:** On successful completion of this course, students will be able to:

- Estimate a distribution and explain the outcome of the estimation.
- Test a statistical hypothesis, using a significance test based on the normal distribution.
- Measure the degree of dependence between variables, using chi-square and correlation.
- Regress one variable on others.
- Test for equality of several population means.

### **You are required to do the following:**

- (i) Attend the lecture each week. Quizzes will be given during lectures; they will be used in the grade assessment (see below).
- (ii) After each lecture, answer the work sheet questions in the online system for that week. You should do this before the next class and before the next lecture sessions. Your responses to work sheet questions will be recorded by the online system.
- (iii) Attend the class session each week, given by Deren Çağlayan and Sait Çakır on-site.
- (iv) Go online regularly (at least once a week) and check for updates of course material. (Course material is available at Bilgi Online and at <http://www.hs-stat.com/courses/BUS274>).

### **Grading:**

Work sheets:	15%
Quizzes:	50%
Final Exam:	35%

As a bonus, up to 10 percent points can be given for substantial contributions to discussions in lectures.

### **Recommendations:**

- **This is an easy course only if you study regularly.**
- **You are strongly advised against delaying your efforts for this course until the exam week.**
- **Attendance will be taken.**
- **You are supposed to attend the classes, too.**
- **You have to attend the Bus 274 section you are registered for.**
- **Academic dishonesty (for example, plagiarism and cheating) will be punished according to the rules of Istanbul Bilgi University.**
- **In case of problems, please see us BEFORE the exams take place.**
- **Please do not come to see us after the final exam to “explain” your “situation”.**

### **Literature:**

- KAHNEMAN, DANIEL: *Thinking, Fast and Slow*. Penguin, 2012.
- NEWBOLD, PAUL, CARLSON, WILLIAM L., & THORNE, BETTY: *Statistics for Business and Economics*, seventh edition. Prentice Hall, 2009.
- ÖZDEMİR, DURMUŞ: *Applied Statistics for Economics and Business*. İstanbul Bilgi University Press, 2001.
- TALEB, NASSIM NICHOLAS: *The Black Swan: The Impact of the Highly Improbable*. Random House, 2010.