Bilkent University

Department of Computer Technology and Information Systems

2017-2018 Spring Semester

Course Code	**CTIS 488**
Course Name	**Data Analysis**
Course Credit	**3 (3 hour Lecture)**
Instructors	**Duygu Albayrak** **Office: C212** **e-mail: duygua@bilkent.edu.tr** **http://www.bilkent.edu.tr/~duygua**
Description	This course will provide an introduction to the important concepts in statistics. The focus throughout the course will be on developing an understanding of the rationale, the correct interpretation, and the appropriate applications of some of the most commonly used statistical techniques. No previous research or statistical knowledge is assumed of the student. The emphasis will be on concepts and applications rather than on computations.
Text Book	Gravetter, F.J. & Wallnau, L.B. (2013). Statistics for the behavioral sciences. (9th edition) Belmont, CA:Wadsworth/Thomson Learning
Other Materials	**Lecture Notes** **Reference Books:** • Green, S.B., Salkind, N.J., & Akey, T.M. (2000). Using SPSS for windows: analyzing and understanding data (2nd edition). Prentice Hall
Grading	**Homeworks** **15%** **Participation** **5%** **Term Project** **20%** **Midterm** **25%** **Final** **35%**
	Minimum grade to pass is 45 out of 100. Above 45, letter grades will be assigned based on "Statistical calculations"
Midterm & Final exam*:** In class exam (closed- book) ***Term project: This is a take home exam The exam will involve performing statistical analyses using SPSS and presenting and interpreting the results in a complete report.	
Important Note:	**1.** Facebook Page - **CTIS 488: Data Analysis** **2.** PLAGIARISM and CHEATING result in disciplinary action to be taken. CHEATING does not only cover exams, but also include sharing your homework, term project with other students. **3.** Use of mobile devices during lecture is NOT allowed, unless you use them in search of course relevant information with the permission of instructor. **4.** If you miss class "*more than 12 hours"* or you collect "*less than 25 points (out of 65 points)"* till Final exam, you will get FZ and you cannot enter Final.
Prerequisite:	**CTIS 163**

DETAILED COURSE OUTLINE

This syllabus is subject to change based on the needs of the class.

Week	Lecture Topics
1	Information about the course Objective, Textbook, Grading Chapter 1 & 2 : Introduction to Statistics, Frequency distribution
2	Chapter 1 & 2 (Continue) : Introduction to Statistics, Frequency distribution
2	Chapter 3, 4 & 5: Central Tendency, Variability, z-scores
4	Chapter 6, 7 & 8: Probability and samples, Introduction to hypothesis testing
5	Chapter 9: Introduction to the t statistics
6	Chapter 9 (Continue): Introduction to the t statistics
7	Chapter 10: Hypothesis tests with two independent samples
8	Chapter 11 & 12: Hypothesis tests with two related samples, Estimation **Midterm (March 20, 2018)**
9	Chapter 13: Introduction to analysis of variance (ANOVA)
10	Chapter 15: Two Factor anaylsis of variance
11	Chapter 14: Repeated Measures Analysis of Variance
12	Chapter 14: Repeated Measures Analysis of Variance
13	Chapter 16-17: Correlation and regression
14	Review
15-16	**FINAL EXAMS**