King Saud University
College of Business Administration
Department of Quantitative Analysis

Business Statistics Outlines (QUA 207) - spring 2020

Batch : Semester 2 (1440/1441h)
Section: 51451/51456
Credit hours : 3
Number of Sessions : 42 (14 weeks)
Course Facilitator: Bayan Alghanmi
Office : Building 3, 2nd Floor, Office No. 116
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Website: http://fac.ksu.edu.sa/balganmi
Lecture Time: Wednesday (8:00 to 10:50) / Monday (1:00 to 2:50) and Wednesday (1:00 to 1:50)
Office Hours: Sunday, Monday, Tuesday and Wednesday (12:00 to 1:00) Or by Appointment

Course Objectives:

- Explain the concepts of Probability Distributions and Sampling Distributions.
- Explain the concepts of Estimation and Hypothesis Testing.
- lustrate applications of Confidence Intervals and Hypothesis Testing for Business problems.
- Explain the concepts of correlation and linear regression.
- Explain the Nonparametric Methods (Chi-Square Tests)
- Analyze Business and Economic data for decision-making.
- Explain the consequences to the Management based on the data analysis.

Text Book:

David M Levine / Kathryn A. Szabat / David F. Stephan / **Business Statistics**, Pearson, Seventh Edition.

Chapter	Title	Required Topics	Number of Weeks
7	Sampling distributions	7.1 sampling distribution. 7.2 Sampling distribution of the mean. 7.3 Sampling distribution of the proportion.	2 Weeks
8	Confidence Interval of Estimation.	8.1 Confidence Interval for the mean (σ Known). 8.2 Confidence Interval for the mean (σ Unknown). 8.3 Confidence Interval for the proportion. 8.4 Determining Sample Size.	2 Weeks
9	Fundamentals of Hypothesis Testing: One-Sample Tests	9.1 Fundamentals of Hypothesis-Testing Methodology. 9.2 *t* Test of Hypothesis for the mean (σ Unknown). 9.3 One-Tail Tests. 9.4 Z Test of Hypothesis for the proportion.	3 Weeks
10	Two-Sample Tests and One-Way ANOVA	10.1 Comparing the Means of Two Independent Populations. (352 omitted) 10.2 Comparing the Means of Two Related Populations Paired t Test. 10.3 Comparing the Proportions of Two Independent Populations. 10.4 F Test for the Ratio of Two Variances. 10.5 One-Way ANOVA.(381 to 386 omitted)	4 Weeks
11	Chi-Square Tests	11.1 Chi-Square Test for the Difference Between Two Proportions. 11.2 Chi-Square Test for Differences Among More Than Two Proportions. 11.3 Chi—Square Test of Independence.	1 Week
12	Simple Linear Regression	12.1 Types of Regression Models. 12.2 Determining the Simple Linear Equation. 12.3 Measures of Variation. 12.4 Assumption of Regression. 12.7 Inferences About the Slope and Correlation Coefficient. .(464 omitted)	3 Weeks

Midterm + Homework & Quizzes

1st Mid: (Ch.7+Ch8+ Chapter 9 part 1) (20%) 15/ 3/ 2020 - 20/7/ 1441 (2:30 - 4:00 PM)
2nd Mid: (Chapter 9 part 2 + Ch.10) (20%) 9/ 4./ 2020 - 16/8/ 1441 (2:30 - 4:00 PM)
Final Exam (All chapters) (40%) …./ …../ 2020 …./…../ 1441 (Edugate)
Homework & Quizzes (Online + PSPP 20%) <u>Date:</u> Quiz 1/ online (chapter **7**) : Week No **(5) / 4** degrees Quiz 2/ online (chapter **9**) Week No **(9) /4** degrees Quiz 3/ online (chapter **10**) Week No (11) **/ 4** degrees Quiz 4/ PSPP : Week No (**12**) / **5** degrees HW / online : Week No **(7**) / **3** degrees