College of Business Administration
Quantitative Analysis Department

Business Statistics (QUA 207)

Batch: Semester II (1439/1440h) **Credit hours:** 3 **Number of Sessions:** 42(14 weeks)

Section: 51466, 51458, 51456 &28625

Course Facilitator: Dr.Manahil Kamal M. Eltayeb **E-mail:** maltib@ksu.edu.sa

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Lecture: Sunday, Tuesday, Thursday and Monday

Office Hours : Sunday, Tuesday Thursday(9-10) and Monday (11-12)

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 Recommended

*David M Levine, Kathryn A. Szabat, David F. Stephan: ***Business Statistics, A first Course***. Pearson Education Limited 2016, Seventh Edition.

Content of the Course

Chapter	Title	Required Topic	Number of Week
7	Sampling distributions	Concept of sampling distribution. Sampling distribution of the mean. Sampling distribution of the proportion.	1
8	Confidence Interval of Estimation.	Confidence Interval for the mean (σ Known). Confidence Interval for the mean (σ Unknown). Confidence Interval for the proportion. Determining Sample Size.	2-3
9	Fundamentals of Hypothesis Testing: One-Sample Tests	Fundamentals of Hypothesis-Testing Methodology. *t* Test of Hypothesis for the mean (σ Unknown). One-Tail Tests. Z Test of Hypothesis for the proportion.	4-5
First Midterm (20 points) Sunday (19/6/1440 - 24/2/2019) (2:30-4:00 PM)			
10	Two-Sample Tests and One-Way ANOVA	Comparing the Means of Two Independent Populations. Comparing the Means of Two Related Populations Paired t Test. Comparing the Proportions of Two Independent Populations. F Test for the Ratio of Two Variances. One-Way AN OVA.	6-9
11	Chi-Square Tests	Chi-Square Test for the Difference Between Two Proportions. Chi-Square Test for Differences Among More Than Two Proportions. Chi—Square Test of Independence.	10
Second Midterm (20 points) Sunday (24/7/1440 - 31/3/2019) (2:30-4:00 PM)			
12	Simple Linear Regression	(3.5) The covariance and the Coefficient of Correlation. Types of Regression Models. Determining the Simple Linear Equation. Measures of Variation. Inferences About the Slope and Correlation Coefficient.	11-14
4Quizzes (20 points) During the exercise lectures and the date is determined by the teacher			
Final Exam (40 points)			