King Saud University (RIYADH)
College of business administration
Department of Quantitative Analysis
Business Statistics (QUA 207)

Batch : Semester 1 (1438/1439h)
Section: 47153-27511 – 25862…….
Credit hours : 3
Number of Sessions : 47153 (26)- 27511 (41)- 25862… (36)
Course Facilitator: Hesa Saleh Alawwad ……..
Office : Building 3 2nd Floor, Office No. 184……
E-mail: halawad@ksu.edu.sa……..
Website: http://fac.ksu.edu.sa/halawad
Lecture: Sunday, Tuesday, Thursday. 47153 (Time 9 AM to 10 AM)

27511 (Time 10 AM to 11 AM)
Monday 25862 (Time 9AM to 12 AM)
Office Hours : Sunday, Tuesday, Thursday ……. Time12:00 PM to 1:00 PM……

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**
- **Analyze Business and Economic data for decision making.**
- **Explain the consequences to the Management based on the data analysis.**

Content of the Course and Session Plan

- **Explain the concepts of Correlation and Linear Regression**
- **Nonparametric Methods**

Session	Content
Sessions 1-3	**Sampling distributions and Central Limit Theorem - Concept of sampling distribution. Sampling distribution of sample mean. Central Limit Theorem.**
Sessions 4-9	**Estimation and Confidence Intervals- Point estimates and confidence intervals for Mean – Population standard deviation known and unknown. Confidence interval for a Proportion. Finite Population Correction Factor. Choosing sample size. Confidence Interval for the Population Variance.**
Sessions 10-15	**One-Sample Tests of Hypothesis- What is a hypothesis and what is hypothesis testing? One-tailed and Two-tailed tests of significance. P-value in Hypothesis Testing. Testing for a population mean – Population standard deviation known and unknown. Tests concerning Proportions. Testing Hypothesis about Population Variance.**
Sessions 16-24	**Two-Sample Tests of Hypothesis-Two-Sample Tests of Hypothesis for Means and Proportions. Comparing population means with unknown population standard deviations – equal and unequal standard deviations. Two-Sample Tests of Hypothesis: Dependent samples.**
	First Midterm (25 points) Wednesday (26/2/1439 - 15/11/2017) (3:00-4:30 PM)
Sessions 25-27	**Analysis of Variance- Comparing two population variances. The ANOVA Test.**
Sessions 28-33	**Correlation and Linear Regression – What is Correlation Analysis? – The Coefficient of Correlation and Coefficient of Determination. Testing the significance of Correlation Coefficient. Simple Linear Regression. Multiple Regression Analysis**
Sessions 34-36	**Nonparametric Methods - Goodness-of-fit: Equal and Unequal Expected Frequencies. Contingency Table Analysis.**
	Second Midterm (25 points) Monday (23/3/1439 - 11/12/2017) (3:00-4:30 PM)
	Participation and duties (10 points)
	Final Exam (40 points)

Text Book Recommended

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