

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

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**Batch : Semester 2 (1436/1437h)**

**Credit hours : 3**

**Course Facilitator: Dr. Najwan Alsadat**

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**Lecture: day Sunday, Tuesday, Thursday. (Time 8 AM to 9 AM)**

**Office Hours : Sunday, Tuesday, Thursday - Time 12:00 PM to 1:00 PM**

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**Course Objectives:**

- **Explain the concepts of Probability Distributions and Sampling Distributions.**
- **Explain the concepts of Estimation and Hypothesis Testing.**
- **Illustrate 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**

<b>Session</b>	<b>Content</b>
Sessions 1-4	<b>Review of the concepts of probability theory and probability distributions. Review of the Normal distribution and its characteristics.</b>
Sessions 5-12	<b>Sampling Distribution of the Sample Mean where the underlying distribution is Normal. Central Limit Theorem.</b>
Sessions 13-21	<b>Estimation – Point Estimation and Interval Estimation. Construction of Confidence Intervals for different population Parameters in case of Normal distribution.</b>
<b>First Midterm (25 points) Wednesday (21/6/1437 - 30/3/2016) (3:00-4:30 PM)</b>	
Sessions 22-29	<b>Hypotheses Testing about important population Parameters in case of Normal distribution - One Sample Tests of Hypothesis (Population Mean, Population Proportion).</b>
Sessions 30-36	<b>Hypotheses Testing about important population Parameters in case of Normal distribution - Two Sample Tests of Hypothesis (The difference between two Population Means , Population Variance, Ratio of tow Populations Variances, and the difference between two Population Proportions).</b>
<b>Second Midterm (25 points) Wednesday (13/7/1437 - 20/4/2016) (3:00-4:30 PM)</b>	
Sessions 37-42	<b>F-Distribution. Analysis of Variance</b>
	<b>Participation and duties (10 points)</b>
	<b>Final Exam (40 points)</b>

**Text Book Recommended**

1. Lind, Marchal and Wathen, **Statistical Techniques in Business and Economics**, McGraw Hill International, Fourteenth Edition.