

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**

**DEPARTMENT OF MATHEMATICAL SCIENCES**

**DHAHRAN, SAUDI ARABIA**

**STAT212: BUSINESS STATISTICS II**

**Course Outline for summer 053**

**Instructor:** Esam Al Sawi

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**Office Hours:**

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**Text and Package:**

1. Business Statistics: A Decision-Making Approach, 6<sup>th</sup> edition by Groebner, D., Shannon P., Fry, P. and Smith, K., Prentice Hall (2004).
2. MINITAB Statistical Package will be used.
3. Scientific calculator with statistical functions.

**Course Objectives:**

Continuation of STAT211. Introducing basic concepts of probability and statistics to business students. Emphasis will be given on the understanding of the nature of randomness of real world problems, the formulation of statistical methods by using intuitive arguments and there by making meaningful decisions.

<b>Activity</b>	<b>Weight</b>
Quizzes, attendance and homework	15% <sup>(1)</sup>
Lab exam and lab homework	5%
Exam 1 (Chapters 8,9 & 10) 15/7/2006	20%
Exam 2 (Chapters 12 & 13) 26/7/2006	20%
Final Exam (Comprehensive) Tuesday 15/8/2006 :To be determined later	40%

**(1) There will be 3 pts for attendance, 3 pts for HW and 9 pts for quizzes**

**Tentative schedule**

Week	Sections	Topics	University dates
1 June 24-28	8.1	Hypothesis Tests for Means	
2 July 1-5	8.2	Tests for Proportions	
	9.2	Tests for the Difference Between Two Population Means.	July 4, Last day for dropping courses without permanent record.
	9.3	Tests for Two Population Proportions	
3 July 8-12	10.1	Tests for a single Population Variance	
	10.2	Tests for Two Population Variances	
	12.1	Goodness of Fit Tests	
4 July 15-19	12.2	Introduction to Contingency Tables	1 <sup>st</sup> Exam July 15.
	13.1	Scatter Plots and Correlation	
	13.2	Simple Linear Regression	July 18, Last day for dropping courses with grade of "W" thru Internet
5 July 22-26	13.3	Uses for regression analysis	
	14.1	Introduction to multiple regression analysis	
	14.2	Qualitative independent variables	2 <sup>nd</sup> Exam July 26.
6 July 29- Aug 2	14.3	Nonlinear Relationships	July 29, Last day for withdrawal from <b>all courses</b> with grade of "W" thru Internet
	14.4	Stepwise Regression	
	14.5	Aptness of the Model	
7 Aug 5-9	15.1	Introduction to Forecasting, Time Series, and Index Numbers	
	15.2	Trend-Based Forecasting Techniques	
8 Aug 12-14	15.3	Forecasting Using Smoothing Methods	Aug 12, Last day for major exams; Last day for withdrawal from all courses with grade of "WP/WF" thru <b>the University Registrar Office</b>
	Review (2 LEC)		

**Notes:**

- 1) Classes will meet in the lab for MINITAB generally every week.
- 2) In accordance with University rules, **seven unexcused absences** will result in a grade of *DN*.

**Home Work Problems:**

<b>Ch-8:</b> 8.3, 8.8, 8.17, 8.27, 8.28, 8.31, 8.72
<b>Ch-9:</b> 9.21, 9.22, 9.24, 9.26, 9.36, 9.39
<b>Ch-10:</b> 10.3, 10.4, 10.9, 10.16, 10.20, 10.25
<b>Ch-12:</b> 12.4, 12.7, 12.9, 12.17, 12.22, 12.25
<b>Ch-13:</b> 13.6, 13.7, 13.10, 13.14, 13.16, 13.22, 13.29, 13.31, 13.34, 13.35
<b>Ch-14:</b> 14.3, 14.4, 14.7, 14.14, 14.15, 14.20, 14.22, 14.29, 14.30, 14.35, 14.41, 14.42.
<b>Ch-15:</b> 15.13, 15.14, 15.15, 15.21, 15.22, 15.25, 15.33, 15.34, 15.37

**Homework Lab Problems:**

<b>Ch-8:</b> 8.21, 8.37
<b>Ch-9:</b> 9.33, 9.42
<b>Ch-10:</b> 10.11, 10.21
<b>Ch-12:</b> 12.10, 12.41, 12.42
<b>Ch-13:</b> 13.12, 13.20, 13.36
<b>Ch-14:</b> 14.9, 14.16, 14.17, 14.26, 14.27, 14.31, 14.32, 14.40
<b>Ch-15:</b> 15.30, 15.41, 15.42

**General Note on Problem solving in Homework, Quizzes and**

**Exams:**

- 1) To effectively learn statistics, students need to **solve problems** in statistics and **analyze data**.
- 2) The selected homework problems above are designed to prepare you for class quizzes, major exams, and final exams. So, you are **strongly encouraged** to complete them.
- 3) **Never round** your intermediate results to problems when doing your calculations.  
This will cause you to lose calculation accuracy. Round only your final answers and you should not round less than 4 decimal places unless required otherwise.
- 4) Some lab times are **reserved** for student practice on MINITAB.
- 5) It is to the student's advantage to **keep a binder** for storing class notes, homework, and other graded assignments. Students who are **organized** will find it easier to find important materials when studying for exams.