

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
DHAHRAN, SAUDI ARABIA

STAT212: BUSINESS STATISTICS II
Course Outline for Semester 083

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Text and Package:

1. Business Statistics: A Decision-Making Approach, 6th 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 thereby making meaningful decisions.

Assessment

Assessment for this course will be based on home work, lab, attendance, quizzes, two major exams and a comprehensive final exam, as in the following:

Activity	Weight
Quizzes, class works and home works	15% ⁽¹⁾
Lab reports and lab exams	5%
Exam 1 (Chapters 8, 9, 10)	20%
Exam 2 (Chapters 12 & 13)	20%
Final Exam (Comprehensive)	40%

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

Important Notes:

- ✓ We will explain the MINITAB commands in the class and the student free to do his homework any were he likes.
- ✓ In accordance with University rules, ***nine unexcused absences*** will result in a grade of ***DN***.
- ✓ ***Attendance*** on time is ***very*** important. Therefore, ½ % will be deducted for ***each*** one absence
- ✓ Mostly, attendance will be checked within the ***first five minutes*** of the class. Entering the class after that, is considered as one late, and ***every two times late*** equals to one absence.
- ✓ All contacts or announcements between the instructor and the students are supposed to be held on the WebCT, so the student ***must*** check his WebCT inbox ***at least once*** a day.

Tentative Schedule

Week	Sections	Topics	University dates
1 July 11 -15	8.1	Hypothesis Tests for Means	Wed, July 15 Last day for dropping course(s) without permanent record
2 July 18 - 22	8.2	Tests for Proportions	
	9.2	Tests for the Difference Between Two Population Means.	
	9.3	Tests for Two Population Proportions	
3 July 25 - 29	10.1	Tests for a single Population Variance	1st Exam July 29.
	10.2	Tests for Two Population Variances	
	12.1	Goodness of Fit Tests	
4 Aug 1 - 5	12.2	Introduction to Contingency Tables	Tue, Aug 4 Last day for dropping course(s) with grade of 'W' thru Internet http://regweb.kfupm.edu.sa
	13.1	Scatter Plots and Correlation	
	13.2	Simple Linear Regression	
5 Aug 8 - 12	13.3	Uses for regression analysis	Wed, Aug 12 Last day for withdrawal from all courses with grade of 'W' thru Internet http://regweb.kfupm.edu.sa
	14.1	Introduction to multiple regression analysis	2nd Exam Aug 12.
	14.2	Qualitative independent variables	
6 Aug 15 - 19	14.3	Nonlinear Relationships	
	14.4	Stepwise Regression	
	14.5	Aptness of the Model	
7 Aug 22 - 26	15.1	Introduction to Forecasting, Time Series, and Index Numbers	Wed, Aug 26 Last day for major exams; Last day for withdrawal from all courses with grade of 'WP/WF' thru the University Registrar Office
	15.2	Trend-Based Forecasting Techniques	
8 Aug 29 -31	15.3	Forecasting Using Smoothing Methods	Mon, Aug 31 Last day of classes

Home Work Problems:

Ch-8: 8.4, 8.6, 8.18, 8.26, 8.28, 8.32, 8.76

Ch-9: 9.19, 9.20, 9.22, 9.25, 9.35, 9.37, 9.40

Ch-10: 10.2, 10.5, 10.10, 10.15, 10.20, 10.25

Ch-12: 12.2, 12.3, 12.9, 12.15, 12.19, 12.20

Ch-13: 13.1, 13.8, 13.9, 13.14, 13.15, 13.22, 13.28, 13.30, 13.33, 13.35

Ch-14: 14.2, 14.7, 14.8, 14.15, 14.19, 14.22, 14.28, 14.30, 14.41, 14.42.

Ch-15: 15.13, 15.14, 15.15, 15.21, 15.22, 15.27, 15.34, 15.35, 15.38

Homework Lab Problems:

Ch-8: 8.21, 8.38

Ch-9: 9.31, 9.42

Ch-10: 10.11, 10.21

Ch-12: 12.10, 12.41, 12.42

Ch-13: 13.13, 13.20, 13.36

Ch-14: 14.9, 14.17, 14.26, 14.27, 14.31, 14.40

Ch-15: 15.30, 15.41, 15.42

General Note on Problem solving in Homework, and Exams:

Students are required to carry **pens** and a **calculator** with statistical functions to **EVERY lecture, quizzes, and exams**. Students are also expected to take class notes and organize their learning material in a binder for easy retrieval to help them study and review for class, exams, etc

To effectively learn statistics, students need to **solve problems** and **analyze data**. The selected assigned problems are specifically designed to prepare you for class quizzes, lab, majors and final exam. So, it is expected that you complete these problems **step-by-step** and with **comprehension**.

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.

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.

A formula sheet and **statistical tables** will be given for you in every exam, so you only need to bring with you **pens**, **pencils**, **a sharpener**, **an eraser**, and a **calculator**.

Student Learning Outcomes:

Students are expected to

- 1) Know the correspondence between **levels of measurement** and **statistical procedures**.
- 2) Know the **assumptions** underlying statistical procedures.
- 3) **Select** the appropriate statistical **procedure** for various applied business situations.
- 4) Accurately **compute** procedures **manually** and by **MINITAB**.
- 5) **Interpret the results** of these statistical procedures.