

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICAL SCIENCES
DHAHRAN, SAUDI ARABIA
STAT212: BUSINESS STATISTICS II
Course Outline, Semester 062
(Fully coordinated course)

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Office Hours: SMW: 7:00 am – 7:50 am & 9:00 am – 9:50 am.

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 in *every* class and exam.

Course Objectives:

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 homework, lab work, attendance, three major exams and a comprehensive final exam, as in the following:

Activity	Weight
Homework	6%
Lab work	5%
Attendance	4%
Exam 1 (Chapters 8 & 9) 18.03.2007, OAB , 6.00 pm-7.15.pm	15%
Exam 2 (Chapters 10 & 12) 3.04.2007, OAB , 6.00 pm-7.15.pm	15%
Exam 3 (Chapters 13 & 14) 6.05.2007, OAB , 6.00 pm-7.15.pm	15%
Final Exam (Comprehensive)	40%

Important Note: The homework can be submitted anytime earlier but when the chapter is completed in a certain class, *it must be well understood*, by all the students, that the homework for that chapter must be submitted in the *Saturday* just after that *and no need for an announcement concerning this regard in advance*.

Syllabus

Week	Sections	Topics	Notes
1 17/02 – 21/02	8-1	Hypothesis Tests for Means	Deadline for late registration and adding courses (20/02)
2 24/02 – 28/02	8-1 cont.	Hypothesis Tests for Means, continued	Deadline for dropping courses without permanent record (27/02)
3 3/03 – 7/03	8-2, 9-2	Tests for Proportions, Tests for the Difference Between Two Means.	
4 10/03 – 14/03	9-2, 9-3	Tests for the Difference Between Two Means continued, Tests for Two Populations Proportions	
5 17/03 – 21/03	10-1, 10-2	Tests for One and Two Population Variances	Major 1 (18/03)
12/04-15/04		Midterm Vacation	
6 24/03 – 28/03	12-1, 12-2	Goodness of Fit Tests and Introduction to Contingency Tables	Midterm grade report (27/03)
7 31/03 – 4/04	13-1, 13-2	Scatter Plots and Correlation and Simple Linear Regression	Deadline for dropping courses with “W” & 3/04 Major 2 (3/04)
7/04 – 11/04	13-2, 13-3	Simple Linear Regression	
9 16/04 – 18/04	14-1, 14-2	Introduction to Multiple Regression, and Qualitative Variables	
10 16 21/04 – 25/04	14-3, 14-4	Nonlinear Relationships and Stepwise Regression	Deadline for withdrawal from all courses with “W” (29/04)
11 28/04 – 2/05	14-5	Aptness of the Model	
12 5/05 – 9/05	15-1	Introduction to Forecasting, Time Series, and Index Numbers	Major 3 (6/05)
13 12/05 – 16/05	15-2	Trend-Based Forecasting Techniques	
14 19/05 – 23/05	15-3	Forecasting Using Smoothing Methods	Deadline for withdrawal from all courses with “WP/WF” (27/05)
15 26/05 – 30/05	15-3 & Review	Forecasting Using Smoothing Methods continued	

Notes:

1. Classes will meet in the lab for MINITAB whenever it is needed and *possible*.
2. Attendance on time is *very* important. Therefore, ½ % will be deducted for *each* one absence.
3. 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 "lates"* equals to one absence.
4. In accordance with the university undergraduate bulletin, *ten* unexcused absences will result in a grade of *DN* and no need for any prior notice or warning.
5. 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.

Home Work Problems:

Ch-8: 8.19, 8.37

Ch-9: 9.30, 9.41

Ch-10: 10.11, 10.44

Ch-12: 12.12, 12.27

Ch-13: 13.12, 13.27, 13.38

Ch-14: 14.8, 14.18, 14.25, 14.34, 14.43

Ch-15: 15.12, 15.32, 15.43

General Note on Problem solving in Homework, 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 major exams, and the final exam. Therefore, 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.
- 6) 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* and *interpret the results* of these statistical procedures.