# KING FAHD UNIVERSITY OF PETROLEUM \& MINERALS DEPARTMENT OF MATHEMATICS and STATISTICS DHAHRAN, SAUDI ARABIA <br> STAT212: BUSINESS STATISTICS II <br> <br> Course Outline, Semester 081 

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T 9:00 am - 11:30 am

## Jext 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.

## dessessment:

Assessment for this course will be based on homework, attendance, two midterm exams, lab exam and a final exam, as following

| Activity | Weight |
| :--- | :---: |
| Quizzes, Homework and Attendance | $10 \%$ |
| Lab Major | $10 \%$ |
| Major One (Chapters 8, 9 \& 10) <br> 7:30 pm - 9:00 pm, Wednesday 26/11/2008 | $20 \%$ |
| Major two (Chapters 12 \& 13) <br> 7:30 pm - 9:00 pm, Wednesday 24/12/2008 | $20 \%$ |
| Final Exam (Comprehensive ) | $40 \%$ |

## 2mportant Notes:

$\checkmark$ Students will be required to carry a scientific calculator with statistical functions to every class, quizzes, and exams.
$\checkmark$ We will explain the MINITAB commands in the class and the student free to do his homework any were he likes.
$\checkmark$ In accordance with University rules, eight unexcused absences will result in a grade of $\underline{D N}$.
$\checkmark$ Attendance on time is very important. Therefore, $1 / 2 \%$ will be deduced for each one absence
$\checkmark$ 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.
$\checkmark$ 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.
$\checkmark$ Quizzes: In general, there will be a quiz at the end of every chapter.

# Tentative Schedule 

| Week | Sections | Topics | Notes |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \mathbf{1} \\ 11 / 10-15 / 10 \end{gathered}$ | 8-1 | Hypothesis Tests for Means | Tue. Oct. 14 Deadline for late registration and adding courses |
| $\begin{gathered} \mathbf{2} \\ 18 / 10-22 / 10 \end{gathered}$ | 8-1 cont. | Hypothesis Tests for Means, continued | Tue. Oct. 21 <br> Deadline for dropping courses without permanent record. |
| $\begin{gathered} 3 \\ 25 / 10-29 / 10 \end{gathered}$ | 8-2, 9-2 | Tests for Proportions, Tests for the Difference Between Two Means. |  |
| $\begin{gathered} \mathbf{4} \\ 1 / 11-5 / 11 \end{gathered}$ | 9-2 ,9-3 | Tests for the Difference Between Two Means continued, Tests for Two Populations Proportions | Tue. Nov. 11 <br> Midterm grade report |
| $\begin{gathered} 5 \\ 8 / 11-12 / 11 \end{gathered}$ | 10-1, 10-2 | Tests for One and Two Population Variances | Tue. Nov. 18 <br> Deadline for withdrawal from all courses with "W" thru internet |
| $\begin{gathered} 6 \\ 15 / 11-19 / 11 \end{gathered}$ | 12-1, 12-2 | Goodness of Fit Tests and Introduction to Contingency Tables |  |
| $\begin{gathered} 7 \\ 22 / 11-26 / 11 \end{gathered}$ | 13-1, 13-2 | Scatter Plots and Correlation and Simple Linear Regression |  |
| $\begin{gathered} \mathbf{8} \\ 29 / 11-2 / 12 \end{gathered}$ | 13-2 | Simple Linear Regression (continued) | Tue. Dec. 2 <br> Last day of classes before Id al-Adha Vacation |
| $3 / 12-13 / 12$ |  | Id al-Adha Vacation |  |
| $\begin{gathered} 9 \\ 14 / 12-18 / 12 \end{gathered}$ | 13-3, 14-1, | Uses for Regression Analysis Introduction to Multiple Regression | Sun. Dec. 14 Classes resume Thu. Dec. 18 Normal Wed classes |
| $\begin{gathered} 10 \\ 20 / 12-24 / 12 \end{gathered}$ | 14-1,14-2 | Introduction to Multiple Regression (continued), Qualitative Variables |  |
| $\begin{gathered} 11 \\ 27 / 12-31 / 12 \end{gathered}$ | 14-3, 14-4 | Nonlinear Relationships and Stepwise Regression | Tue. Dec. 30 Deadline for withdrawal from all courses with "W" thru the Univ. Registrar office |
| $\begin{gathered} 12 \\ 3 / 1-7 / 1 \end{gathered}$ | 14-4, 14-5 | Stepwise Regression continued, Aptness of the Model | Sat. Jan. 3 <br> Beginning of early registration for 082 and for Coop |
| $\begin{gathered} 13 \\ 10 / 1-14 / 1 \end{gathered}$ | 15-1 | Introduction to Forecasting, Time Series, and Index Numbers |  |
| $\begin{gathered} \mathbf{1 4} \\ 17 / 1-21 / 1 \end{gathered}$ | 15-2 | Trend-Based Forecasting Techniques | Tue. Jan 20 <br> Deadline for withdrawal from all courses with "WP/WF" |
| $\begin{gathered} 15 \\ 24 / 1-31 / 1 \end{gathered}$ |  <br> Review | Forecasting Using Smoothing Methods | Sat. Jan 31 <br> Last day of classes |
| $\begin{gathered} 16 \\ 1 / 2-11 / 2 \end{gathered}$ |  | Final examinations |  |

## Htome Work סroblems:

The questions will be given at the end of each chapter through the WebCT.
The Homework should be submitted the first Saturday after completing the chapter and no need for an announcement in advance. Finally, no late homework will be accepted.

## General Note on droblem solving in dtomework, and fxams:

1) To effectively learn statistics, students need to solve problems in statistics and analyze data.
2) The assigned homework problems are designed to prepare you for major exams, lab exam 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) 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.
5) 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 Cutcomes:

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.
5. Finally, make the right decision.
