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

STAT212: BUSINESS STATISTICS II Course Outline, Semester 072

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**Office Hours:** SMW 12:00 - 12:50 pm and from 2:10 - 3:00 pm

### 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.

#### Assessment:

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%
<b>Major One</b> (Chapters 8, 9 & 10) Bldg. 10 7:30 pm – 9:00 pm, Sunday 30/03/2008	20%
<b>Major two</b> (Chapters 12 & 13) Bldg. 10 7:30 pm – 9:00 pm, Saturday 26/04/2008	20%
<b>Final Exam</b> (Comprehensive) 7:30 am, Saturday 07/06/2008	40%

## Amportant Notes:

- ✓ Students will be required to carry a scientific calculator <u>with statistical functions</u> to <u>every class</u>, <u>quizzes</u>, <u>and exams</u>.
- ✓ 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, *eight unexcused absences* will result in a grade of *DN*.
- ✓ Attendance on time is very important. Therefore, ½ % will be deduced 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.
- ✓ *Quizzes*: In general, there will be a *quiz at the end of every chapter*.

# Tentative Schedule

Week	Sections	Topics	Notes
<b>1</b> 16/2 – 20/2	8-1	Hypothesis Tests for Means	Tue. Feb. 19 Deadline for late registration and adding courses
<b>2</b> 23/2 – 27/2	8-1 cont.	Hypothesis Tests for Means, continued	Tue. Feb. 26 Deadline for dropping courses without permanent record.
<b>3</b> 1/3 – 5/3	8-2, 9-2	Tests for Proportions, Tests for the Difference Between Two Means.	
<b>4</b> 8/3 – 12/3	9-2 ,9-3	Tests for the Difference Between Two Means continued, Tests for Two Populations Proportions	
<b>5</b> 15/3 – 19/3	10-1, 10-2	Tests for One and Two Population Variances	
<b>6</b> 22/3 – 26/3	12-1, 12-2	Goodness of Fit Tests and Introduction to Contingency Tables	Tue. March. 25 Midterm grade report
<b>7</b> 29/3 – 2/4	13-1, 13-2	Scatter Plots and Correlation and Simple Linear Regression	Tue. April. 1 Deadline for withdrawal from all courses with "W" thru internet Sun. March 30 Major One
<b>8</b> 5/4 – 9/4	13-2, 13-3	Simple Linear Regression (continued) Uses for Regression Analysis	Wed. April 9 Last day of classes before Midterm Vacation
12/4 – 16/4		Midterm vacation	
<b>9</b> 19/4 – 23/4	14-1, 14-2	Introduction to Multiple Regression, and Qualitative Variables	Sat. April 19 Classes resume
<b>10</b> 26/4 – 30/4	14-3, 14-4	Nonlinear Relationships and Stepwise Regression	Tue. April 29 Deadline for withdrawal from all courses with "W" thru the Univ. Registrar office Sat. April 26 Major Two
11 3/5 – 7/5	14-5	Aptness of the Model	Sat. May. 3 Beginning of early registration for 073 & 081 and for Coop
<b>12</b> 10/5 – 14/5	15-1	Introduction to Forecasting, Time Series, and Index Numbers	
13 24/5 – 28/5	15-2	Trend-Based Forecasting Techniques	Tue. May 27 Deadline for withdrawal from all courses with "WP/WF"
<b>14</b> 31/5 – 4/6	15-3 & Review	Forecasting Using Smoothing Methods	Wed. June.4 Last day of classes
7/6 – 18/6		Final examinations	

#### Home Work Problems:

The questions will be given at the end of each chapter through the WebCT.

The <u>Homework</u> 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 Problem solving in Homework, 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.