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

STAT212: BUSINESS STATISTICS II (091)

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**Teaching Hours: SMW 10.00-10.50am and 1.10-2.00pm** 

Office Hours: SMW 10.50-11.55am and 12.10-12.40pm or by appointment

## Jext and Package:

- 1. Business Statistics: A Decision-Making Approach, 7th edition by Groebner, D., Shannon P., Fry, P. and Smith, K., Prentice Hall (2008).
- 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 Major exams and a final exam, as following

Activity	Weight	
Quizzes <sup>1</sup> , attendance, homework and Lab work	(7%+3%+3%+7%)	
Exam 1 (Chapters 9, 10 & 11)		
7:00 pm – 9:00 pm, Monday Nov 16, 2009	20%	
Exam 2 (Chapters 13 & 14)	200/	
7:00 pm – 9:00 pm, Tues Dec 22, 2009	20%	
Final Exam (Comprehensive) 40%		
7:00 pm – 10:00 pm, Thursday Feb 4, 2010	40%	

#### General Notes:

- Students are required to carry **pens**, **binder** 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 in study and review for class, exams, etc
  - o 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.
- To effectively learn statistics, students need to <u>solve problems</u> and <u>analyze data</u>. 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*.
- <u>Never round</u> 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.

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

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<sup>&</sup>lt;sup>1</sup> There will be a quiz at the end of each chapter.

## Tentative Schedule

Week	Sections	Topics	Notes
3/10 – 7/10	9-1	Hypothesis Tests for Means	Oct 7 Last day for late registration; Last day for adding courses.
2 10/10 – 14/10	9-1 cont.	Hypothesis Tests for Means, continued	Oct 14 Last day for dropping course(s) without permanent record
3 17/10 – 21/10	9-2, 10-2	Tests for Proportions, Tests for the Difference Between Two Means.	
<b>4</b> 24/10 – 28/10	10-2 ,10-3, 10-4	Tests for the Difference Between Two Means continued, Tests for Two Populations Proportions	
5 31/10 – 4/11	11-1, 11-2	Tests for One and Two Population Variances	
<b>6</b> 7/11 – 11/11	13-1, 13-2	Goodness of Fit Tests and Introduction to Contingency Tables	Nov 7 (for 2 weeks) Beginning of Mid- Term Grade submission thru web at http://regweb.kfupm.edu.sa Nov 11 Last day for dropping course(s) with grade of "W" thru web at http://regweb.kfupm.edu.sa
<b>7</b> 14/11 – 18/11	14-1, 14-2	Scatter Plots and Correlation and Simple Linear Regression	Nov 18 Last day of classes before Id al- Adha Vacation
21/11 – 4/12		Id al-Adha Vacation	
<b>8</b> 5/12 – 9/12	14-2, 14-3	Simple Linear Regression (continued) Uses for Regression Analysis	
<b>9</b> 12/12 – 16/12	15-1, 15-2	Introduction to Multiple Regression, and Qualitative Variables	
<b>10</b> 19/12 – 23/12	15-3, 15-4	Nonlinear Relationships and Stepwise Regression	2-nd Exam Dec 23 Last day for withdrawal from all courses with grade of "W" thru the Univ Registrar Office
<b>11</b> 26/12 – 30/12	15-5	Aptness of the Model	
12 2/1 – 6/1	16-1	Introduction to Forecasting, Time Series, and Index Numbers	Jan 2 Beginning of Early Registration for the Second Semester, 2009-2010 (092); Registration for Coop begins
<b>13</b> 9/1 – 13/6	16-2	Trend-Based Forecasting Techniques	Course Evaluations begins
<b>14</b> 16/1 – 20/1	16-3	Forecasting Using Smoothing Methods	Jan 20, Last day for major exams; Last day for withdrawal from all courses with grade of "WP/WF" thru the University Registrar Office
<b>15</b> 23/1 – 27/1		Review & catch up	Jan 27 Last day for classes

## Amportant Notes:

- ✓ Students will be required to carry a scientific calculator <u>with statistical functions</u> to <u>every class</u>, <u>quiz</u>, <u>and</u> exam.
- ✓ 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,  $\underline{Nine (9)}$  unexcused absences will automatically result in a grade of  $\underline{DN}$ .
- ✓ <u>Attendance</u> on time is *very* important. Therefore, ½ % will be reduced 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 lateness* 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*.

## Home Work Problems:

- *Homework* problems will be *handed out* to students
- The <u>Homework</u> should be submitted the first Saturday after completing the chapter and no need for an announcement in advance.
- No late homework will be accepted.

## Student fearning 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.
- 5. Finally, make the *right* decision.