King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
Dhahran, Saudi Arabia

First semester 2008-2009 (081)

STAT211: BUSINESS STATISTICS I
Coordinated

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Office Hours: 8:00 am to 9:00 am (STW), 12:00 pm to 1:00 pm (STW), or by appointment.

Lecture Times & Location:

Section number	Time	Location
1	9:00 – 9:50	4 – 150
3	11:00 – 11:50	5 – 105
4	10:00 – 10:50	6 – 169

Course Objectives: Introduce basic concepts of probability and statistics to business students. Emphasize the understanding of the nature of randomness of real world problems, the formulation of statistical methods using intuitive arguments and thereby make meaningful decisions.

Text Book and Package:
1. Business Statistics: A Decision-Making Approach, 6th edition, by Groebner, D., Shannon P., Fry, P. and Smith, K., Prentice Hall (2005).
2. MINITAB: statistical analysis computer software.
3. Scientific calculator **with statistical functions**.

Assessment It will be based on homework, lab, attendance, quizzes, two major exams and a comprehensive final exam, as in the following:

Activity	Weight
Quizzes, attendance, and homework	10%
Lab Work	10%
Exam 1 (Chapters 1, 2, 3) **9:00** pm – **10:00** pm, Tuesday Nov. 11, Building 10	20%
Exam 2 (Chapters 4 & 5) **5:30** pm – **7:30** pm, Sunday Dec. 21, Building 10	20%
Final Exam (Comprehensive) **7:30** am Tuesday Feb. 10, 2009.	40%

Note: Once a chapter is finished, you will expect a quiz. Students are required to carry **pens** and a **calculator** with statistical functions **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.

Important Note: When the chapter is completed in a certain class, *it must be well understood*, by all the students, that the quiz and the homework for

that chapter will be submitted in the *next Saturday and no need for an announcement in advance*.

Homework: The homework can be submitted earlier but is **due by the day of the quiz**.

Assigned Textbook Problems

	Homework	Tutorial in Lab (Optional Problems)
Ch.1	7, 11(a, b), 27, 32, 43, 53, 57, 62, 64.	Draw SRS wor and wr
Ch.2	4, 10, 25, 27, 37, 42, 46, 53, 60.	6, 9, 24, 30, 36, 40, 44, 46, 50, 58.
Ch.3	4, 14, 20, 26, 34, 54, 59.	3, 24, 25, 27, 41, 42, 47, 50, 57.
Ch.4	1, 8, 14, 18, 35, 38, 46, 49, 63, 74.	39.
Ch.5	2, 22, 25, 30, 35, 40, 52, 64, 69, 79, 85, 91, 116.	3, 27, 28, 29, 30, 38, 47, 53, 67, 70, 108, 117.
Ch.6	3, 6, 10, 13, 20, 26, 29, 37, 41, 51, 56, 68.	9, 16, 21, 28, 32, 39, 42, 52, 64, 76.
Ch.7	3, 12, 19, 23, 25, 34, 40, 41, 46, 55, 58, 62, 68, 72, 82.	4, 9, 14, 24, 27, 36, 38, 42, 49, 53, 57, 65, 77, 80.
Ch.9	1, 7, 11, 13, 36(b), 40(b).	3, 10, 12, 14, 38, 41.

Syllabus (Tentative)

Wk	Dates	Sections	Topics
1	11.10 – 15.10	1-1,1-2	What is Business Statistics?, Tools for Data Collection
2	18.10 – 22.10	1-3,1-4	Populations, Samples, Sampling Techniques, Data Types **[Tue, 21.10: Last day for dropping course(s) wopr**]
3	25.10 – 29.10	2-1, 2-2, 2-3	Graphs, Charts and Tables
4	01.11 – 05.11	3-1,3-2	Measures of Location and Measures of Variation
5	08.11 – 12.11	3-3, 4-1	CV, ER, TI and Standardized Data Values, Basic Concepts of Probability **[Midterm Grade Report Due]**
6	15.11 – 19.11	4-1,4-2	Basic Concepts of Probability, Rules of Probability **[Tue, 18.11: Last day for dropping courses with W thru internet]**
7	22.11 – 26.11	4-2, 4-3, 5-1	Rules of Probability (contd), Probability Distributions The Binomial Distribution
8	29.11 – 30.11 01.12 –02.12	5-2	Poisson and Hypergeometric Distribution **[Tue, 02.12: Last day of classes before Eid al-Adha]**
9	15.12 – 17.12 20.12 – 24.12	5-3, 5.4	The Normal Distribution, Uniform Distribution **[Mon, 15.12: First day of classes after Eid al-Adha; Thursday, 18.12: Normal Wednesday Class]**
10	27.12 – 31.12	5.4	Uniform and Exponential Distributions **[Tues, 30.12: Last day for withdrawal from all courses with grade of "W" thru the Registrar Office]**

11	03.01 – 07.01	6-1, 6.2, 6-3	Sampling Error, Sampling Distributions of the Mean and Proportion [**Sat, 03.01: Beginning of Early Registration for the Second Semester, 2007-2008 (072)**]
12	10.01 –14.01	7-1	Point and Confidence Interval Estimation of the Mean and Proportion
13	17.01 – 21.01	7-2, 7-3	Sample Size Determination for Estimating the Mean and Estimating a Population Proportion [**Tue, 20.01Last day for withdrawal from all courses with grade of "WP/WF" thru URO**]
14	24.01 – 28.01	9-1,9-3	Estimation for Two Population Means and Estimation of Two Population Proportions
15	31.01	9.3	Review
			Comprehensive Final Exam

Notes:

1. Classes will meet in the lab (**B5-202**) for MINITAB generally every **Saturday & Monday**.
2. In accordance with University rules, *more than nine* unexcused absences will result in a grade of *DN*.
3. 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.

General Note on Problem solving in Homework, Quizzes 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 class quizzes, major exams, and final exams. So, 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.

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