

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICAL SCIENCES
DHAHRAN, SAUDI ARABIA

Term: 2nd semester 2005-2006 (052)
STAT211: BUSINESS STATISTICS I

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 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. MINTAB.

Instructor: Dr. Walid Abu-Dayyeh
Office: B 6 R 137
Phone: 3497
E-mail: dayyeh@kfupm.edu.sa
Web page: <http://faculty.kfupm.edu.sa/math/dayyeh/>

Office Hours: 9:20-10:30 S M W

Assessment

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

| Activity | Weight |
|--|--------|
| Class work | 10% |
| Lab | 10% |
| Exam 1 (Chapters 1, 2, 3) 5:00 pm Sunday March 19, OAB (Auditorium) | 20% |
| Exam 2 (Chapters 4 & 5) 7:00 pm Wednesday April 19, OAB (Auditorium) | 20% |
| Final Exam (Comprehensive) 7:00 pm Tuesday May 30,2006 | 40% |

Note: Students are required to carry a calculator with statistical functions.

Note: 9 unexcused absences will lead to a DN grade.

Syllabus

| Week | Dates | Sections | Topics |
|--------------------------------------|-------------|---------------------|---|
| 01 | 13/2 – 16/2 | 1-1,1-2 | What is Business Statistics, Tools for Data Collection |
| 02 | 18/2 – 22/2 | 1-3,1-4 | Populations, Samples, Sampling Techniques, Data Types |
| 03 | 25/2 – 1/3 | 2-1, 2-2, 2-3 | Graphs, Charts and Tables |
| 04 | 4/3 – 8/3 | 3-1,3-2 | Measures of Location and Measures of Variation |
| 05 | 11/3 – 15/3 | 3-3 | Coefficient of Variation, Empirical Rule, Tchebysheff's Inequality and Standardized Data Values |
| 06 | 18/3 – 22/3 | 4-1 | Basic Concepts of Probability |
| 07 | 25/3 – 29/3 | 4-2, 4-3 | Rules of Probability, Introduction to Probability Distributions |
| 1 to 2 April – Mid Term Break | | | |
| 08 | 3/4 – 5/4 | 5-1, 5-2 | The Binomial and Other Discrete Distributions |
| 09 | 8/4 – 12/4 | 5-2 Continued & 5-3 | The Normal Distribution |
| 10 | 15/4 – 19/4 | 5-3 Continued & 5-4 | Other Continuous Distributions. |
| 11 | 22/4 – 26/4 | 6-1, 6-2. | Sampling Error Sampling Distributions of the Mean |
| 12 | 29/4 – 3/5 | 6-3, 7-1 | Proportion , Point and Confidence Interval Estimation of the Mean and Proportion |
| 13 | 6/5 – 10/5 | 7-1 Continued & 7-2 | Sample Size Determination for Estimating the Mean |
| 14 | 13/5 – 17/5 | 7-3, 9-1 | Estimating a Population Proportion, Estimation for Two Populations Means. |
| 15 | 20/5 – 24/5 | 9-3 | Estimation of Two Population Proportions and Review |
| 16 | 27/5-28/5 | | Review |

Problems

| | Homework | Lab work |
|-------------|---|--|
| Ch.1 | 8,12,16,24,29,33,36,45,52,56,61,63. | 1, 3, 5, 16, 22, 27, 34, 44, 49, 54, 56, 60, 64. |
| Ch.2 | 6, 8, 16, 24,28,34,38,48,56,60 | 4, 10, 18, 25, 26, 32, 38, 42, 47, 53, 61. |
| Ch.3 | 2,8,18,22,24,32,36,38,48,54,60. | 4, 14, 18, 20, 29, 31, 41, 43, 47, 56, 66, 77. |
| Ch.4 | 2, 9, 15, 16,35,39,47,50,63,74. | 2, 11, 14, 16, 20, 38, 40, 52, 67, 70. |
| Ch.5 | 4, 6, 20, 26, 28, 36, 46, 48, 65, 70, 80, 84, 91, 117 | 2, 3, 13, 23, 31, 39, 44, 47, 55, 65, 75, 81, 86, 102, 121, 126. |
| Ch.6 | 2, 6, 9, 11, 20, 25, 29, 36, 42, 52, 57, 66. | 3, 6, 10, 16, 20, 28, 31, 41, 51, 61, 71, 76. |
| Ch.7 | 4, 12, 20, 22, 26, 35, 39, 44, 54, 57, 65, 68, 76, 82 | 5, 10, 15, 24, 27, 34, 39, 44, 51, 54, 57, 67, 78, 80. |
| Ch.9 | 2, 8, 12, 13, 38(b), 40(b). | 1, 13, 15, 17, 21, 28, 37, 42, 43, 57. |