

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

**STAT212: BUSINESS STATISTICS II
Course Outline for Semester 052**

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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. MINITAB Statistical Package will be used.
3. Scientific calculator **with statistical functions**

Course Objectives:

Continuation of STAT211. 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 home work, lab, attendance, quizzes, two major exams and a comprehensive final exam, as in the following:

Activity	Weight
Quizzes, class works and home works	10%
Exam 1 (Chapters 8, 9, 10) B10 Auditorium 8:00 pm – 10:00pm, Thursday Mar 16	20%
Exam 2 (Chapters 12 & 13) OAB Auditorium 8.00pm – 10.00pm, Sunday Apr 16	20%
Lab reports and lab exams	10%
Final Exam (Comprehensive)	40%

Note: Students will be required to carry a scientific calculator **with statistical functions** to every class, quizzes, and exams.

Quizzes: In general, there will be a **quiz at the end of every chapter.**

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

Tentative Schedule

Week	Sections	Topics	University Dates
1 13/02- 16/02*	8-1	Hypothesis Tests for Means	*Feb 16 Normal Thurs class
2 18/02- 22/02	8-1 cont.	Hypothesis Tests for Means, continued	Feb 22 Last day to drop course without permanent record
3 25/02- 01/03	8-2, 9-2	Tests for Proportions, Tests for the Difference Between Two Means.	
4 04/03- 08/03	9-2, 9-3	Tests for the Difference Between Two Means continued, Tests for Two Populations Proportions	
5 11/03- 15/03	10-1, 10-2	Tests for One and Two Population Variances	
6 18/03- 22/03	12-1, 12-2	Goodness of Fit Tests and Introduction to Contingency Tables	Mar 22 MidTerm Grade due
7 25/03- 29/03	13-1, 13-2	Scatter Plots and Correlation and Simple Linear Regression	Mar 29 Last day to drop course with "W"
April 1-2 MidTerm Break			
8 03/04- 07/04	13-2, 13-3	Simple Linear Regression	
9 08/04- 12/04	13-3 (Cont.) 14-1, 14-2	Introduction to Multiple Regression, and Qualitative Variables	
10 15/04- 19/04	14-3, 14-4	Nonlinear Relationships and Stepwise Regression	Apr 19 Last Day to Drop all courses
11 22/04- 26/04	14-5	Aptness of the Model	
12 29/04- 03/05	15-1	Introduction to Forecasting, Time Series, and Index Numbers	
13 06/05- 10/05	15-2	Trend-Based Forecasting Techniques	
14 13/05- 17/05	15-3	Forecasting Using Smoothing Methods	
15 20/05- 24/05	15-3 & Review	Forecasting Using Smoothing Methods continued	
16 27/05	Review	Review	May 28 Last day of classes
May 29-June 8 Final Exam Week			
June 10 Last day to submit grades			

Note: 1) Classes will meet in the lab for MINITAB generally every week. 2) In accordance with University rules, *seven* unexcused absences will result in a grade of *DN*.

Home Work Problems:**Ch-8:** 8.4, 8.6, 8.18, 8.26, 8.28, 8.32, 8.76**Ch-9:** 9.19, 9.20, 9.22, 9.25, 9.35, 9.37, 9.40**Ch-10:** 10.2, 10.5, 10.10, 10.15, 10.20, 10.25**Ch-12:** 12.2, 12.3, 12.9, 12.15, 12.19, 12.20**Ch-13:** 13.1, 13.8, 13.9, 13.14, 13.15, 13.22, 13.28, 13.30, 13.33, 13.35**Ch-14:** 14.2, 14.7, 14.8, 14.15, 14.19, 14.22, 14.28, 14.30, 14.41, 14.42.**Ch-15:** 15.13, 15.14, 15.15, 15.21, 15.22, 15.27, 15.34, 15.35, 15.38**Homework Lab Problems:****Ch-8:** 8.21, 8.38**Ch-9:** 9.31, 9.42**Ch-10:** 10.11, 10.21**Ch-12:** 12.10, 12.41, 12.42**Ch-13:** 13.13, 13.20, 13.36**Ch-14:** 14.9, 14.17, 14.26, 14.27, 14.31, 14.40**Ch-15:** 15.30, 15.41, 15.42***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