

**Oppp[KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS and STATISTICS
DHAHRAN, SAUDI ARABIA
STAT212: BUSINESS STATISTICS II (141)**

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Text and Package:

1. Basic Business Statistics: Concepts and Applications, 11th edition, by Berenson, M.L., Levine, D.M., and Krehbiel, T.C., Pearson-Prentice Hall (2009).
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 |
|--|--------|
| Attendance and homework | 5% |
| Exam 1 (Chapters 9, 10) <i>Week 5 ()</i> | 15% |
| Exam 2 (Chapters 12, 13) <i>Week 9 (Monday November 10, 2014, 6:00PM)</i> | 15% |
| Exam 3 (Chapters 14, 15) <i>Week 13 (Sunday December 07, 2014, 6:00PM)</i> | 20% |
| Lab work (MINITAB Quizzes & assignments) | 10% |
| Final Exam (Comprehensive, Chapters 9, 10, 12, 13, 14, 15, 16) <i>(Monday January 05, 2014, 7:00PM)</i> | 35% |

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
 - 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 solve problems and analyze data. 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.
- **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.

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.

Tentative Schedule

| <i>Week</i> | <i>Sections</i> | <i>Topics</i> |
|---------------------------|---------------------------|---|
| 1 Aug-Sep 31-4 | 9.1-9.2 | Hypothesis Tests for Means |
| 2 Sep 7-11 | 9.3, 9.4, 9.6 | Hypothesis Tests for Means (continued), Tests for Proportions |
| 3 Sep 14-18 | 10.1,10.2, | Tests for the Difference Between Two Means. |
| 4 Sep 21-25 | 10.3, 10.4, 12.5 | Tests for Two Populations Proportions, F-Tests for Two Population Variances, Chi-squared Test for One Population Variances, |
| | Sep-Oct 28-9 | Eid Al-Adha Vacations |
| 5 Oct 12-16 | 12.1- 12.2,12.4 | Chi-squared Tests for Proportions |
| 6 Oct 19-23 | 12.3, 12.10 | Introduction to Contingency Tables, Goodness of Fit Tests, Review |
| 7 Oct 26-30 | 13.1- 13.3 | Simple Linear Regression |
| 8 Nov 2-6 | 13.4-13.9 | Simple Linear Regression (continued), Correlation, Inferences and Uses for Regression Analysis, |
| 9 Nov 9-13 | 14.1-14.4 | Introduction to Multiple Regression Inferences on coefficients, Model testing |
| 10 Nov 16-20 | 14.5-14.6 | Model testing (cont.) & Multiple Regression with Qualitative Variables |
| 11 Nov 23-27 | 15.1, 15.3, 15.4, 15.5 | Nonlinear Relationships, Model Building |
| 12 Nov-Dec 30-4 | 15.6, 16.1- 16.3 | Aptness of the Model, Introduction to Forecasting, and Time Series |
| 13 Dec 7-11 | 16.4-16.7 16.9 | Trend-fitting, Trend-Based Forecasting Techniques and Forecasting using smoothing methods, |
| 14 Dec 14-18 | 16.9, 16.8 | Forecasting (cont.), Index Numbers |
| 15 Dec 21-25 | 16.8 | Index Numbers (cont.) & Review |
| 16 Dec 28 | Revision | |

Important Notes:

- ✓ Students will be required to carry a scientific calculator with statistical functions to every class, quiz, and 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, Nine (9) unexcused absences will automatically result in a grade of DN. It is students' responsibility to provide valid written excuses on time before a DN report is issued.
- ✓ Attendance 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 Homework 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 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* and *interpret the results* of these statistical procedures.
5. Finally, make the *right* decision.