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

STAT212: BUSINESS STATISTICS II (152)

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Office Hours: UTR 8:00 AM – 9:50 AM or by appointment.

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, Homework, and Labtest	2% + 3% + 5%
Exam 1 (Chapters 9 & 10) Wednesday Feb 17, 17:45 – 19:00 in OAB	15%
Exam 2 (Chapters 12 & 13) Wednesday March 23, 18:00 – 19:15 in OAB	20%
Exam 3 (Chapters 14 & 15) Wednesday April 20, 18:15 – 19:30 in OAB	20%
Final Exam (Comprehensive) Wednesday May 11, 8:00 AM – 10:00 AM in Exb. Center (B# 54)	35%

General Notes:

- Students are required to carry **pens**, **binder** and a **calculator** with statistical functions to **EVERY lecture, quiz, and exam**.
- 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

Week	*Sections*	*Topics*	*Notes*
1	9.1-9.2	Hypothesis Tests for Means	
2	9.3, 9.4, 9.6	Hypothesis Tests for Means (continued), Tests for Proportions	
3	10.1,10.2,	Tests for the Difference Between Two Means	
4	10.3, 10.4, 12.5	Tests for Two Populations Proportions, F-Tests for Two Population Variances, Chi-squared Test for One Population Variances	
5	12.1-12.2,12.4	Chi-squared Tests for Proportions	Major 1 – Feb. 17 17:45 – 19:00 (OAB)
6	12.3, 12.10	Introduction to Contingency Tables, Goodness of Fit Tests, Review	
7	13.1- 13.3	Simple Linear Regression	
8	13.4-13.9	Simple Linear Regression (continued), Correlation, Inferences and Uses for Regression Analysis	
Midterm Vacation (13 – 17 March)			
9	14.1-14.4	Introduction to Multiple Regression Inferences on coefficients, Model testing	Major 2 – March 23 18:00 – 19:15 (OAB)
10	14.5-14.6	Model testing (cont.) & Multiple Regression with Qualitative Variables	
11	15.1, 15.3, 15.4, 15.5	Nonlinear Relationships, Model Building	
12	15.6, 16.1- 16.3	Aptness of the Model, Introduction to Time-Series Forecasting, Component Factors of Time-Series, and Smoothing Techniques	
13	16.4-16.6	LS Trend Fitting, Autoregressive Modeling for Trend Fitting and Forecasting, Choosing an Appropriate Model	Major 3 – April 20 18:15 – 19:30 (OAB)
14	16.7, 16.8	Time-Series Forecasting of Seasonal Data, Index Numbers	Lab Test – April 28 Class time in 5-202
15	16.8	Index Numbers (cont.) & Review	

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*** equal to one absence.
- All contacts or announcements between the instructor and the students are supposed to be held on ***Blackboard***, so the student ***must*** check his *Blackboard* inbox ***at least once*** a day.
- ***Quizzes***: In general, there will be a ***quiz at the end of every chapter***.

Home Work Problems:

- The ***Homework*** should be submitted the first Sunday after completing the chapter ***and no need for an announcement in advance***.
- No late homework will be accepted.
- Chapter 9: 9.1, 9.3, 9.6, 9.11, 9.13, 9.19, 9. 21, 9.27, 9.33, 9.39, 9.47, 9.51, 9.55
- Chapter 10: 10.2, 10.10, 10.13, 10.19, 10.25, 10.26, 10.31, 10.33, 10.36, 10.39, 10.41, 10.45, 10.49, 10.52
- Chapter 12: 12.1, 12.3, 12.7, 12.13, 12.15, 12.19, 12.21, 12.13, 12.25, 12.27, 12.31, 12.33, 12.35, 12.41, 12.45
- Chapter 13: 13.3, 13.5, 13.9, 13.13, 13.17, 13.19, 13.25, 13.29, 13.33, 13.37, 13.39, 13.41, 13.43, 13.49, 13.53, 13.55, 13.57, 13.61
- Chapter 14; 14.1, 14.3, 14.7, 14.9, 14.11, 14.17, 14.19, 14.21, 14.23, 14.25, 14.29, 14.31, 14.35, 14.38, 14.41, 14.45
- Chapter 15: 15.1, 15.3, 15.7, 15.15, 15.19, 15.21, 15.25
- Chapter 16: 16.3, 16.5, 16.7 16.11, 16.15, 16.19, 16.25, 16.29, 16.33, 16.35, 16.42, 16.47, 16.51, 16.52, 16.55

Student Learning Outcomes:

Students are expected to

- Know the correspondence between ***levels of measurement*** and ***statistical procedures*.**
- Know the ***assumptions*** underlying statistical procedures.
- ***Select*** the appropriate statistical ***procedure*** for various applied business situations.
- Accurately ***compute*** procedures ***manually*** and by ***MINITAB*** and ***interpret the results*** of these statistical procedures.
- Finally, make the ***right*** decision.