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

STAT212: BUSINESS STATISTICS II
Course Outline for Semester 063

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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	15%[1]
Lab reports and lab exams	5%
Exam 1 (Chapters 8, 9, 10) OAB Auditorium 6.00pm – 8.00pm, Sat July 21	20%
Exam 2 (Chapters 12 & 13) OAB Auditorium 8.00pm – 10.00pm, Sat Aug 4	20%
Final Exam (Comprehensive)	40%

[1] **There will be 3 pts for attendance, 3 pts for HW and Class work, and 9 pts for quizzes**

Note:

✓ Students will be required to carry a scientific calculator _**with statistical functions**_ to _**every class, quizzes, and exams**_.
✓ Classes will meet in the lab for MINITAB generally every week.
✓ In accordance with University rules, _**seven unexcused absences**_ will result in a grade of _**DN**_.
✓ _**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 July 1 - 5	8.1	Hypothesis Tests for Means	Thu, July 5 Normal Saturday Classes
2 July 7 - 11	8.2	Tests for Proportions	Sat, July 7 Last day for dropping courses without permanent record.
	9.2	Tests for the Difference Between Two Population Means.	
	9.3	Tests for Two Population Proportions	
3 July 14 - 18	10.1	Tests for a single Population Variance	
	10.2	Tests for Two Population Variances	
	12.1	Goodness of Fit Tests	
4 July21 - 25	12.2	Introduction to Contingency Tables	**1^{-st} Exam** **July 21**.
	13.1	Scatter Plots and Correlation	
	13.2	Simple Linear Regression	Tue, July 24 Last day for dropping course(s) with grade of "W" thru Internet http://regweb.kfupm.edu.sa
5 July28 - Aug 1	13.3	Uses for regression analysis	Wed, Aug 1 Last day for withdrawal from all courses with grade of "W" thru Internet http://regweb.kfupm.edu.sa
	14.1	Introduction to multiple regression analysis	
	14.2	Qualitative independent variables	
6 Aug 4 - 8	14.3	Nonlinear Relationships	**2^{-nd} Exam** **Aug 4.**
	14.4	Stepwise Regression	
	14.5	Aptness of the Model	
7 Aug 11 - 15	15.1	Introduction to Forecasting, Time Series, and Index Numbers	Wed, Aug 15 Last day for major exams; Last day for withdrawal from all courses with grade of "WP/WF" thru the University Registrar Office
	15.2	Trend-Based Forecasting Techniques	
8 Aug 18 - 20	15.3	Forecasting Using Smoothing Methods	Mon, Aug 20 Last day of classes

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.