

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

**STAT212: BUSINESS STATISTICS II (183)**

**Instructor:** Esam Al-Sawi

**Office:** Building 5 – Room 310

**Phone:** 1887

**E-mail:** Blackboard

**Office Hours:** **UMTW 11:35 AM - 12:15 PM** or by appointment.

**Text and Package:**

1. Basic Business Statistics: Concepts and Applications, 12<sup>th</sup> edition, by Berenson, M.L., Levine, D.M., and Krehbiel, T.C., Pearson-Prentice Hall (2012).
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:**

ACTIVITY	WEIGHT
HOME WORK/ATTENDANCE (5%) + LAB WORK (10%)	15%
EXAM 1 (CHAPTERS 9,10, 12) WEEK 3 TUESDAY JUNE 25, 5:00 – 6:30 (B 54)	25%
EXAM 2 (CHAPTERS 12 & 13) WEEK 5 MONDAY JULY 8, 17:00 – 18:30 (B 54)	25%
FINAL EXAM (COMPREHENSIVE) THURSDAY, 1 AUGUST 2019 @ 7:00 PM	35%
<b>TOTAL</b>	<b>100%</b>

**→ 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**

<b>Week</b>	<b>Section</b>	<b>Topic</b>	<b>Notes</b>
<b>1</b> Jun 9 – 13	9.1-9.2 9.3, 9.4, 9.6	Hypothesis Tests for Means Hypothesis Tests for Means (continued), Tests for Proportions	
<b>2</b> Jun 16 – 20	10.1,10.2, 10.3, 10.4,	Tests for the Difference Between Two Means Tests for Two Populations Proportions, F-Tests for Two Population Variances.	
<b>3</b> Jun 23 – 27	12.1-12.5, 12.10 (by MINITAB)	Chi-squared Tests for Proportions Introduction to Contingency Tables, Chi-squared Test for One Population, Variances, Goodness of Fit Tests.	Exam 1
<b>4</b> Jun 30 – Jul 4	13.1- 13.3 13.4-13.9	Simple Linear Regression Correlation, Inferences and Uses for Regression Analysis	
<b>5</b> Jul 7 – 11	14.1-14.4 14.5-14.6	Introduction to Multiple Regression Inferences on coefficients, Model testing Multiple Regression with Qualitative Variables	Exam 2
<b>6</b> Jul 14 – 18	15.1, 15.3-15.6	Nonlinear Relationships, Model Building, Aptness of the Model.	
<b>7</b> Jul 21 – 25	16.1- 16.8	Introduction to Time-Series Forecasting, Component Factors of Time-Series, and Smoothing Techniques LS Trend Fitting, Autoregressive Modeling for Trend Fitting and Forecasting, Choosing an Appropriate Model Time-Series Forecasting of Seasonal Data, Index Numbers	
<b>8</b> Jul 28 – 29		Review + LAB TEST	Final

## ● 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.

## ▶ 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: 9.4 , 9.13 , 9.21 , 9.28 , 9.45 , 9.50 , 9.54 , 9.56 , 9.76
- ▶ Chapter 10: 10.6 , 10.10 , 10.12 , 10.18 , 10.21 , 10.27 , 10.35 , 10.44 , 10.46 , 10.50
- ▶ Chapter 12: 12.4 , 12.9 , 12.13 , 12.21 , 12.26 , 12.27 , 12.32 , 12.39 , 12.45
- ▶ Chapter 13: 13.3, 13.9, 13.15, 13.21, 13.24, 13.29, 13.33, 13.37, 13.41, 13.47, 13.55, 13.61
- ▶ Chapter 14: 14.1, 14.4, 14.9, 14.14, 14.18, 14.23, 14.26, 14.31, 14.34, 14.38, 14.41 , 14.44
- ▶ Chapter 15: 15.1 , 15.6 , 15.8 , 15.13 , 15.14 , 15.16 , 15.21 , 15.25

## \* Important Notes:

- \* **Cheating in Exams:** Cheating or any attempt of cheating by use of illegal activities, techniques and forms of fraud will result in a grade of **F** in the course along with reporting the incident to the higher university administration. Cheating in exams includes (but is not limited to)
  - ★ Looking at the papers of other students
  - ★ Talking to other students
  - ★ Using mobiles or any other electronic devices
- \* **Calculator:** Students will be required to carry a scientific calculator **with statistical functions** to **every class, quiz, and exam**.
- \* **MINITAB:** We will explain the MINITAB commands in the class and the student free to do his homework any where he likes.
- \* **DN:** In accordance with University rules, **Nine (8) 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:**
  - ✓ Attendance on time is **very** important. Therefore,  $\frac{1}{2}$  % 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.
- \* **Blackboard:** 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.
- \* **Academic Integrity:** All KFUPM policies regarding **ethics** and **academic honesty** apply to this course.