

Business Statistics (QUA 207) Summer Term (2022) (1443H)

Course Facilitator: Dr. Najwan Alsadat, **E-mail:** nalsadat@ksu.edu.sa

Office Hours : Mon. 4PM to 5PM (upon request), **Office :** Building 3 Office No. 185

Lecture: Mon. & Wed. 1-4 PM, **Tutorial:** Wed. 4PM to 6PM

Course description

The course deals with inferential statistics, which will be the focus of the course. The topics covered in the course include statistical inference involving means, proportions; ANOVA; Chi-Square Tests; and simple regression.

Course objectives

The main objective of this course is to provide basic knowledge about inferential statistics for the purpose of making effective business decisions.

The objectives of the course can be stated as follows:

- Construct and interpret confidence interval estimate for sample statistics.
- Determine the sample size necessary to develop confidence interval estimate for a parameter.
- Learn how to use hypothesis testing to test parameters.
- Compare the parameters of two populations.
- Compare the means of two and more than two populations.
- Learn when to use the chi-square test for contingency tables.
- Learn to use regression analysis and evaluate its assumptions.

Required Materials

David M. Levine, Kathryn A. Szabat, David F. Stephan: **Business Statistics: A First Course, 7th Global Edition**, Pearson.

Textbook ISBN-13: 978-1-292-09593-6

Required Chapters: 8, 9, 10, 11, and 12

Course outline

- Content of the Course and lectures Plan

Chapters	Contents	Weeks	Exams
		Dates	
Ch. 8 Confidence Interval Estimation.	8.1 Confidence Interval for the Mean (σ Known) 8.2 Confidence Interval for the Mean (σ Unknown) 8.3 Confidence Interval for the Proportion 8.4 Determining Sample Size	22 JUNE 27 JUNE	Covered by First exam
Ch. 9 Fundamentals of Hypothesis Testing: One-Sample Tests	9.1 Fundamentals of Hypothesis-Testing Methodology 9.2 t Test of Hypothesis for the mean (σ Unknown) 9.3 One-Tail Tests 9.4 Z Test of Hypothesis for the Proportion	29 JUNE 18 JULY	
Ch. 10 Two-Sample Tests and One-Way ANOVA	10.1 Comparing the Means of Two Independent Populations (352 omitted) 10.2 Comparing the Means of Two Related Populations Paired t Test. 10.3 Comparing the Proportions of Two Independent Populations. 10.4 F Test for the Ratio of Two Variances. 10.5 One-Way ANOVA, (381 to 386 omitted)	20 JULY 25 JULY 27 JULY 01 AUG	Covered by Second exam
Ch. 11 Chi-Square Tests	11.1 Chi-Square Test for the Difference Between Two Proportions. 11.2 Chi-Square Test for Differences Among More Than Two Proportions. 11.3 Chi—Square Test of Independence.	03 AUG 08 AUG	Covered by Final exam
Ch. 12 Simple Linear Regression	12.1 Types of Regression Models. 12.2 Determining the Simple Linear Equation.		

Quizzes

- There is no make-up for missed quizzes.
- Remember, you only have one attempt, and all quizzes are open book.

Quizzes	Day	Date	From	To	Points
Ch8+9	Wednesday	20/07/2022	12:30pm	01:30pm	10%
Ch10	Wednesday	03/08/2022	12:30pm	01:30pm	10%

Exams

- There is no make-up for missed Midterm exams and Final exams.
- Remember, you only have one attempt, and all midterm/final exams are closed book.

Exam	Day	Date	From	To	Points
First Midterm	Wednesday	27/07/2022	12:30pm	02:00pm	20%
Second Midterm	Wednesday	10/08/2022	12:30pm	02:00pm	20%
Final Exam	Based on University Schedule- Tuesday 16 AUG. (1:00-4:00 PM)				40%

Evaluation

Assessment Task	Proportion of Assessment
Quizzes	20%
First Midterm Exam	20%
Second Midterm Exam	20%
Final Exam	40%
Total	100%

Attendance Policy

- Regular and punctual attendance at all scheduled classes is expected from all students.
- Students may be denied entry to the final exam **if they miss more than 25% of classes.**

**This syllabus is subject to change by the Quantitative Analysis Department only at any time. Changes, if any, will be announced in class. Students will be held responsible for all changes.*