

# Introduction to Business Statistics (QUA 107) First Term (2023/2024) (1445H)

#### **Course description**

The course is designed for the purpose of providing an introduction to Business Statistics. This course basically deals with descriptive statistics, which will be the focus of the course with an abbreviated introduction to inferential statistics. The topics covered in the course include classifying, analyzing, and presenting numerical data; frequency distribution, averages, dispersion, basic probability, probability distributions, and Sampling Distributions.

#### **Course objectives**

The main purpose of this course is to provide basic knowledge about collecting, organizing, summarizing, describing, and presenting data to provide information, which are stated in numerical form, for the purpose of making effective business decisions. The objectives of the course can be sated as follows:

- To provide the student with the basic concepts and terminology of statistical science, including graphical representation and descriptive measures.
- To cover different methods of arranging & tabulating and presenting data.
- To provide the student the basic concepts of probability theory.
- To understand the concept and importance of relationships between variables and to fit mathematical models.
- To understand and use Excel software for data analysis and decision making.
- To prepare the student to perform scientific interpretation of economic and social phenomena to assist various policy and decision makers.

# Required Materials (More Information on Page: 4)

David M. Levine, Kathryn A. Szabat, David F. Stephan: Business Statistics: A First Course, 8th Global Edition, Pearson.

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

MyLab Statistics: You are required to purchase access to MyLab Statistics.

**Required Chapters: 1, 2, 3, 4, 5, and 6** 



## **Homework Assignment (10%)**

- The assignments are drawn from the problems at the end of each textbook chapter and practice problems. You should correctly answer each question **prior to the posted due date**.
- Homework problems that are attempted and submitted will **NOT** be accepted.
- Make sure you perform well as possible on the Homework.
- Your overall homework evaluation will be based on the best 5 out of 6 homework.

#### **Homework Schedule**

Homework	Start			End (Due Dates)		
HW Ch1	Sunday	27/08/2023	8:00am	Thursday	14/09/2023	11:59pm
HW Ch2		10/09/2023			28/09/2023	
HW Ch3		24/09/2023			12/10/2023	
HW Ch4		08/10/2023			02/11/2023	
HW Ch5		22/10/2023			16/11/2023	
HW Ch6		12/11/2023			07/12/2023	

#### **Exams**

- There shall be three examinations given during this course, two midterms and a final examination.
- The 1<sup>st</sup> midterm is the 7<sup>th</sup> week and the 2<sup>nd</sup> is the 12<sup>th</sup> week of the term.
- The instructor reserves the right to utilize whatever format (true-false, multiple choice, fill in the blank, essay/short answer) or combination of formats she deems necessary and in the students' best interest.

Exam	Day	Date	From	To	Points
First Midterm	Tuesday				20%
Second Midterm	Tuesday				20%
Final Exam	Based on University Schedule				50%

#### **Evaluation**

Assessment Task	Proportion of Assessment
Homework Assignment	10%
First Midterm Exam	20%
Second Midterm Exam	20%
Final Exam	50%
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.

<sup>\*</sup>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.



# **Course outline**

# • Content of the Course and lectures Plan

Week	Content	Pages	HW	Exam
1 & 2	<ul> <li>CH 1: Defining and Collecting Data</li> <li>Defining Variables</li> <li>Collecting Data</li> <li>Types of Sampling Methods</li> <li>Types of Survey Errors</li> </ul>	49 - 73	1	Fir
3 & 4	<ul> <li>CH 2 : Organizing and Visualizing Variables</li> <li>Organizing Categorical Variables</li> <li>Organizing Numerical Variables.</li> <li>Visualizing Categorical Variables.</li> <li>Visualizing Numerical Variables.</li> </ul>	74 - 158	1	First Midterm & Final
5 & 6	CH 3: Numerical Descriptive Measures  • Measures of Central Tendency  • Variation and Shape  • Exploring Numerical Data  • Numerical Descriptive Measures for Population  • Covariance and coefficient of correlation	160 - 205	1	ն Final
7	First Midterm Exam			
8 & 9	<ul> <li>CH 4: Basic Probability</li> <li>Basic Probability Concepts</li> <li>Conditional Probability</li> <li>Multiplication Rule</li> <li>Bayes' Theorem</li> <li>Counting Rules</li> </ul>	206 - 236	1	Second Midterm & Final
10 & 11	<ul> <li>CH 5: Discrete Probability Distributions</li> <li>Expected Value , Variance and Standard Deviation</li> <li>Binomial Distribution</li> <li>Poisson Distribution</li> </ul>	237 - 260	1	term &
12	Second Midterm Exam			
13 & 14	CH 6 : Continuous Probability Distributions  • The Normal Distribution	261 - 286	1	Final



#### **MyLab Statistics**

- In order to be able to work on the Study Plan, Homework, Quiz; the student MUST purchase MyLab Statistics Access Code (which will INCULDE the eTextbook).
- MyLab Statistics is a platform that is connected to the student's LMS to enrichen the learning experience. It provides the student with access to the eTextbook, Example, and other multimedia material.

#### **Learning Management System Support (Blackboard Support)**

• Webpage: <a href="https://daleel.ksu.edu.sa/ar">https://daleel.ksu.edu.sa/ar</a>

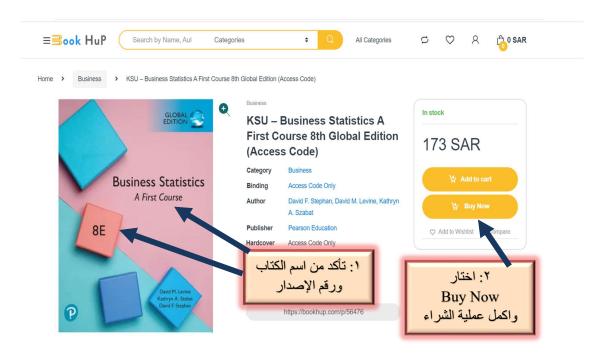
Tel#: 00966 11 4677297
 Tel#: 00966 11 4675557
 Email: itsupport@ksu.edu.sa





# How to purchase the Book\ eBook\ MyLab Statistics Code

• Student Fund Market webpage <u>direct link</u>: <u>https://bookhup.com/p/56476</u>



#### Activate your MyLab Statistics Code

In order to activate Code, You have to connect through your <a href="https://lms.ksu.edu.sa/">https://lms.ksu.edu.sa/</a>

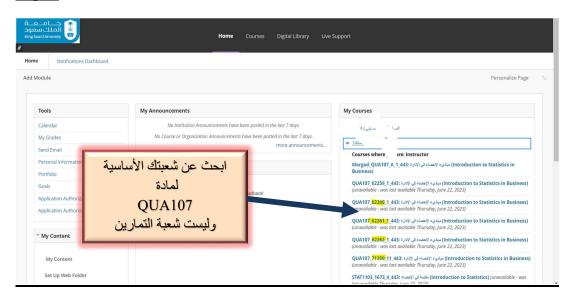
page then follow these steps:

#### **Step 1:**

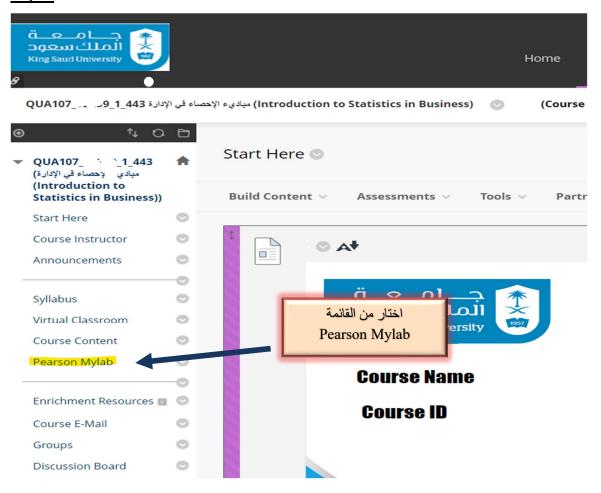




# <u>Step 2:</u>

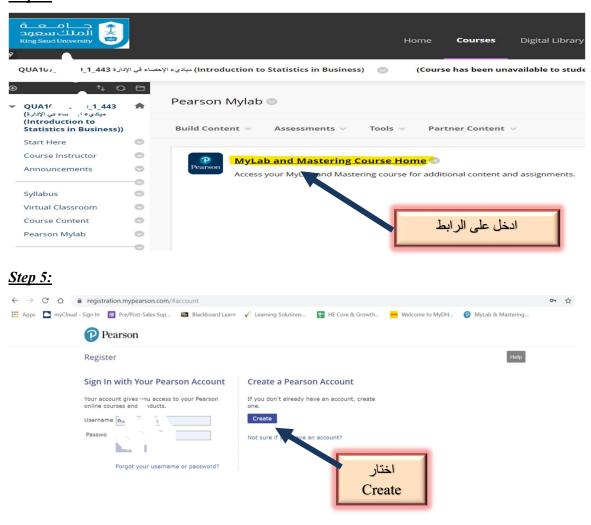


# **Step 3:**



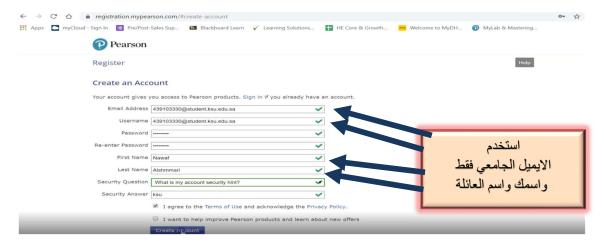


# **Step 4:**



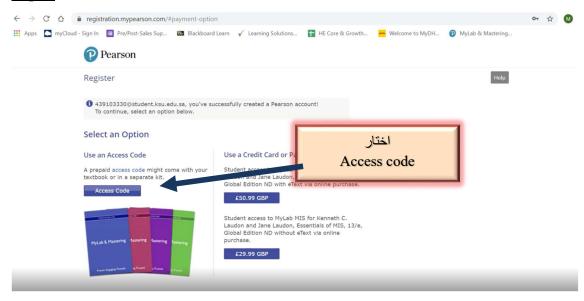
#### **Step 6:**

- Use your KSU Student Email.
- Any other Emails will NOT be accepted; such as: Gmail, Yahoo, ... etc.

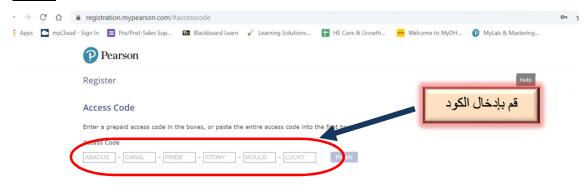




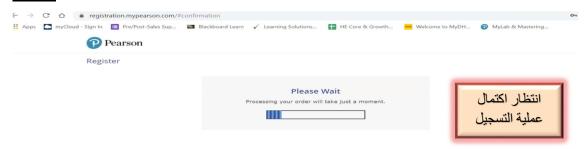
# **Step 7:**



## **Step 8:**

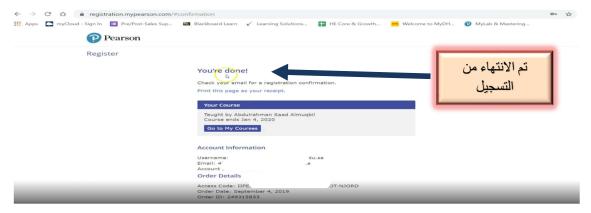


#### **Step 9:**



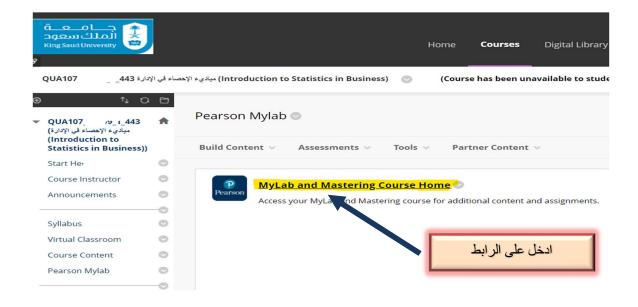


#### **Step 10:**



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#### **Step 1:**



#### **Step 2:**

