



Philadelphia University
Faculty of Business
Department of Hospital Management

Course syllabus

Course title: Principles of business statistics	Course code:0380122
Course level: First year / Faculty Compulsory	Course prerequisite (s) and/or corequisite (s):
Lecture time:	Credit hours: 3
Location:	32104

Academic Staff Specifics

Name	Rank	Office number and location	Office hours	E-mail address
Dr. Atef Al-Raoush	Assistant Prof.	32411	10:00 –11:10 Sun. Tues. Thur. 9:45 –11:15 Mon. Wed.	aalraoush@philadelphia.edu.jo

Course description

This course aims at introducing the student to the principles of the statistics concepts. Students will learn the methods of data collection and sources of data, presenting data, Sample and selection methods, Calculating central tendency and dispersion measures.

As well as, to use the SPSS statistical system. And how to deal with main SPSS menus, And to be familiar with laws of probability, normal distribution, correlation and regression, hypothesis testing.

Students will learn and practice these skills through lectures, practical training, problem solving, and case studies.

Course objectives:

- Identification of statistics, sources and methods of data collection.
- Identification of sampling methods.
- Presentation of data..
- Use of central tendency and dispersion measures.
- Understanding SPSS program, dealing with files, entering data, arranging, and recoding data.
- Description of nominal and quantitative variables.

- Testing statistical hypotheses.
- Identification of probability and its laws, relative frequency, normal distribution, correlation and regression.

Course/ resources

- **Text book/ books (title , author (s), publisher, year of publication)**
 - Principles of Statistics, Mohammad Abu Salah, Dar Al *Yazouri* for publication,2010.
 - Statistical System (SPSS) , Prof. Mohammad Belal Al Zoubi ,understand and analysis statistical data, Dar wael for publishing, 2012
- **Support material**
SPSS Software, Practical training examples.

Homework guide .

HOMEWORK: Homework is an essential part of the educational process. The homework in this course will reinforce the material covered in the classroom and provide time for practice. Students will earn points for each homework assignment completed. Homework assignments will be graded based on completion.

Teaching methods:

Lectures, discussion groups, tutorials, problem solving, debates, etc.

Learning outcomes:

- Knowledge and understanding
Understand the principles of the statistics concepts.
- Cognitive skills (thinking and analysis).
Use synthesizes analysis and applies statistical tools/techniques in organizational analysis.
- Communication skills (personal and academic).
Discuss and sharing ideas about the basics to statistics concepts and how to apply these concepts when dealing with data.
- Practical and subject specific skills (Transferable Skills).
The ability to use SPSS statistical system and the equations of statistics and probability.

Assessment instruments

- Exams (First, Second and Final Exams)
- Quizzes.
- Short reports and/ or presentations, and/ or Short research projects
- Homework assignments

<u>Allocation of Marks</u>	
Assessment Instruments	Mark
First examination	20
Second examination	20
Final examination: 50 marks	40
Reports, research projects, quizzes, homework, Projects	20
Total	100

Documentation and academic honesty

- Documentation style (with illustrative examples)

All exams, projects and assignments will be in a secure file with the instructor.

- Protection by copyright

This course is given from the textbook mentioned above. It is copyright protected. Students are encouraged to purchase this textbook

- Avoiding plagiarism.

Plagiarism is the unacknowledged borrowing of another writer's words or ideas.

How Can Students Avoid Plagiarism?

To avoid plagiarism, you must give credit whenever you use

- another person's idea, opinion, or theory;
- any facts, statistics, graphs, drawings—any pieces of information—that are not common knowledge;
- quotations of another person's actual spoken or written words; or
- Paraphrase of another person's spoken or written words.

If you are in doubt about whether what you are doing is inappropriate, consult your instructor. A claim that "you didn't know it was wrong" will not be accepted as an excuse.

Course/ academic calendar

week	Basic and support material to be covered	Homework/reports and their due dates
(1)	Data collection and sources of data <ul style="list-style-type: none">• Primary Sources• Secondary Sources• Survey	
(2)	Methods of data collection <ul style="list-style-type: none">• Census method• Sampling method	Practical Exercise
(3)	Sample and selection methods <ul style="list-style-type: none">• Definition of the sample , Population .• Methods of Variables & Constant:<ul style="list-style-type: none">• sample selection<ul style="list-style-type: none">- First- The non-Probabilistic sampling- Second - Probability sampling• Discreet and Continues variables• Discrete and Continues variable	Practical Exercise
(4)	Methods of presenting data: <ul style="list-style-type: none">• Tables• Graphs data<ul style="list-style-type: none">- Bar Chart- Broken Line- Curve Method- Pie Chart• Frequency tables<ul style="list-style-type: none">- Histogram- Frequency Polygon- Frequency Curve• Type of statistical curves	
(5)	Measures of Central tendency <ul style="list-style-type: none">- Mean- Median- Mode Measures of Dispersion (Variation) <ul style="list-style-type: none">- Range- Variance- Standard Deviation Skewness	Assignment
(6)	<u>Practical Part</u> SPSS statistical system <ul style="list-style-type: none">- SPSS Program installation- Running SPSS program- SPSS Screens- Main menus	First exam period
(7)	SPSS System Toolbars <ul style="list-style-type: none">- File Menu- Edit Menu- View Menu	Discuss the first exam results, strength and weakness

		Data entry
(8)	Data Menu Sorting data Select Cases Transform Menu Compute Variable Recoding Variable Create Time series Rank cases	Using compute variable order Short exam
(9)	Description of nominal variables Using Frequencies Graphic representation <ul style="list-style-type: none"> - Bar chart - Pie Chart Description of quantitative variables	Practical Training Graphic representation Of data
(10)	Testing Hypotheses <ul style="list-style-type: none"> - Null Hypothesis and Alternative hypothesis - Type 1 error and type II error - Hypothesis and Statistical Decision Making 	
(11) Second examination	<ul style="list-style-type: none"> - Confidence level and level of statistical significance. - Testing Hypotheses concerning the mean of normal distribution. - Analysis of Variance. 	Second Exam Period
(12)	Correlation and Regression Correlation <ul style="list-style-type: none"> - Coefficient of Linear Correlation - Types of Linear Correlation. - Scatter Diagram and its relation with correlation. 	Discuss the Second exam results, strength and weakness
(13)	Regression <ul style="list-style-type: none"> - Regression concept - Linear regression analysis - Multiple regression analysis - Validity of study tools (validity and consistency) 	Practical Training
(14)	Probability <ul style="list-style-type: none"> - Relative Frequency and Probability - Set theory. - Methods of set description - Processes on sets - Forms of Venn diagram - Characteristics of operations on sets 	
(15)	<ul style="list-style-type: none"> - Sample space - Probability laws - Sample Space with equally likely events. - Conditional Probability Normal Distribution <ul style="list-style-type: none"> - Shape of Normal Distribution - Standard Normal Distribution 	
(16) Final Examination	General and comprehensive exercises for the administrative statistics course Review and final exam	Period of Final Exam

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Other Education Resources

Books

- Principles of Statistics, Mohammad Abu Salah, Dar Al *Yazouri* for publication, 2010.
- Statistical System (SPSS) , Prof. Mohammad Belal Al Zoubi ,understand and analysis statistical data, Dar wael for publishing, 2012

Websites

<https://www.pdfdrive.net/statistical-sampling-principles-e26633729.html>

<https://www.pdfdrive.net/statistics-for-economics-e8336980.html>

<https://www.pdfdrive.net/statistics-for-economics-accounting-and-business-studies-e31202279.html>

<https://www.pdfdrive.net/statistics-for-business-and-economics-joe-sullivan-e2643204.html>

<https://www.pdfdrive.net/business-statistics-e23260267.html>

<https://www.pdfdrive.net/introductory-statistics-7th-edition-e19612953.html>

<https://www.pdfdrive.net/spss-for-intermediate-statistics-use-and-interpretation-e17018679.html>

<https://www.pdfdrive.net/spss-for-intermediate-statistics-use-and-interpretation-e17018679.html>

<https://www.pdfdrive.net/a-handbook-of-statistical-analyses-using-spss-e19415883.html>

<http://172.16.0.68/mit/school-of-management/15-075j-fall-2011/contents/index.html>

<http://172.16.0.68/mit/economics/14-30-spring-2009/contents/index.html>

<http://172.16.0.68/mit/economics/14-30-spring-2006/contents/index.htm>