



Jordan University of Science and Technology
Faculty of Pharmacy
Pharmacy Department

PHAR702 Applied Statistics - JNQF Level: 9
First Semester 2024-2025

Course Catalog
2 Credit Hours. This course will cover descriptive statistics and statistical inference relevant to health care research, including basic principles in data analysis, correlation analysis, analysis of variance, linear regression and logistic regression. Students will also learn how to conduct data analysis using statistical softwares.
Teaching Method: Blended

Text Book	
Title	Discovering Statistics Using SPSS
Author(s)	Andy Field
Edition	5th Edition
Short Name	Ref 1
Other Information	Wiley. 2018

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref 2	Understanding Pharmacoepidemiology	Yi Yang and Donna West-Strum	1st Edition	The McGraw-Hill Companies, Inc. 2011
Ref 3	Biostatistics	Ronald N. Forthofer, Eun Sul Lee and Mike Hernandez	2nd Edition	Elsevier Inc. 2007

Instructor	
Name	Dr. SHOROQ ALTAWALBEH
Office Location	P2 L-0
Office Hours	
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Class Schedule & Room
Section 1: Lecture Time: Thu : 08:30 - 09:30 Room: قاعة الندوات/صيدلة

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Basics of Statistical Analysis	From Ref 1
Week 2	Data management with SPSS demonstration	From Ref 1
Week 3	Descriptive Statistics	From Ref 1
Weeks 4, 5	Statistical inference; estimation and hypothesis testing	From Ref 1, From Ref 2
Weeks 6, 7	Comparison of means; students t-tests and one way ANOVA.	From Ref 1, From Ref 2
Week 8	Nonparametric tests	From Ref 1
Week 9	Statistical inference on categorical variables	From Ref 1
Week 9	Correlation	From Ref 1
Week 10	Simple linear regression	From Ref 1, From Ref 2
Week 11	Multiple linear regression	From Ref 1, From Ref 2
Week 12	Logistic regression	From Ref 1, From Ref 2
Week 13	Power and sample size calculations	From Ref 1

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Explain different measures of descriptive statistics and dispersion [1PLO-CP2.1][1L9S1]	15%	Midterm Exam
Discuss basic principles of hypothesis testing and estimation methodology [1PLO-CP2.1][1L9K1]	10%	Midterm Exam
Outline the most common statistical tests and identify their assumptions and limitations. [1PLO-CP2.1][1L9C4, 1L9S3]	65%	Midterm Exam, Final exam
Apply the needed skills to analyze data using the statistical software (SPSS) [1PLO-CP3.2][1L9C2]	10%	Project

PLO1.1	PLO2.1	PLO3.2	PLO3.3	PLO2.2	PLO2.3	PLO2.4	PLO3.1	PLO3.4	PLO3.5	PLO3.6	PLO4.1	PLO4.2	PLO4.3	PLO4.4	PLO5.1	PLO-PT1.1	PLO-PT2.1	PLO-PT2.2	PLO-PT3.1

Relationship to NQF Outcomes (Out of 100%)				
L9K1	L9S1	L9C2	L9C4	L9S3
10	15	10	32.5	32.5

Evaluation	
Assessment Tool	Weight
Midterm Exam	40%
Project	10%
Final exam	50%

Policy	
Exams	The format for the exams is generally multiple-choice questions (MCQS) and essay questions. Grades will not be given out via e-mail Makeup exam should not be given unless there is a valid excuse. Arrangements to take an exam at a time different than the one scheduled MUST be made prior to the scheduled exam time.
Cheating	Prohibited. The commitment of the acts of cheating and deceit such as copying during examinations, altering examinations for re-grade, plagiarism of homework assignments, and in any way representing the work of others as your own is dishonest and will not be tolerated. Standard JUST policy will be applied المادة 7: إذا ضبط الطالب أثناء الامتحان أو الاختبار متلبساً بالغش فتوقع عليه العقوبات التالية مجتمعة اعتباره راسباً في ذلك الامتحان أو الاختبار الغاء تسجيله في بقية المساقات المسجل لها في ذلك الفصل فصله من الجامعة لمدة فصل دراسي واحد، و هو الفصل التالي للفصل الذي ضبط فيه
Attendance	Excellent attendance is expected. JUST policy requires the faculty member to assign ZERO grade (35) if a student missed 10% of the classes that are not excused. If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.
Participation	Highly encouraged to achieve class objectives.

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