Jordan University of Science and Technology
Faculty of Pharmacy
Pharmacy Department

PHAR791 Biostatistics - JNQF Level: 9
First Semester 2024-2025

Course Catalog
3 Credit Hours. As part of the training and preparation of the students, they will be prepared to carry out statistical analyses as researchers as well as understand and interpret data appropriately. The course will include probability, making inference from data, comparing means and proportions, association and prediction, multiple regression analyses, data management and presentation and power and sample size calculation.
Teaching Method: On Campus

Text Book	
Title	Biostatistics
Author(s)	Ronald N. Forthofer, Eun Sul Lee and Mike Hernandez
Edition	2nd Edition
Short Name	Ref 1
Other Information	Elsevier Inc. 2007

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	Designing Clinical Research	Warren S Browner . et al	5th Edition	LWW.2022

Instructor	
Name	**Dr. SHOROQ ALTAWALBEH**
Office Location	P2 L-0
Office Hours	Sun : 11:30 - 12:30 Tue : 10:30 - 12:30 Wed : 13:30 - 14:30 Thu : 10:30 - 12:00 Thu : 13:30 - 14:00
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Class Schedule & Room
Section 1: Lecture Time: Thu : 14:00 - 17:00 Room: قاعة الندوات/صيدلة

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction and Syllabus discussion	
Week 2	Basics of Statistical Analysis	From **Ref 1**
Week 3	Data management with software demonstration.	
Week 4	Descriptive Statistics	From **Ref 1**
Weeks 5, 6	Statistical inference; estimation and hypothesis testing	From **Ref 1**
Weeks 7, 8	Comparison of means; students t-tests and one way ANOVA.	From **Ref 1**
Week 9	Nonparametric tests	From **Ref 1**
Week 10	Statistical inference on categorical variables	From **Ref 1**
Week 11	Correlation	From **Ref 1**
Week 12	Simple and Multiple linear regression	From **Ref 1**
Week 13	Logistic regression	From **Ref 1**
Week 14	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
Describe various measures of descriptive statistics and data dispersion. [1PLO-BE2.2] [1L9K1]	15%	
Discuss basic principles of hypothesis testing and estimation methodology [1PLO-BE2.2] [1L9K1]	15%	
Choose and perform the most commonly used statistical analyses, while recognizing the assumptions and limitations associated with each analysis. [1PLO-BE2.2] [1L9S3]	50%	
Apply the needed skills to analyze data using the statistical software [1PLO-BE2.2] [1L9C2]	20%	

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	L9C2	L9S3
30	20	50

Evaluation	
Assessment Tool	Weight
Midterm Exam	35%
Project	15%
Final exam	50%

Date Printed: 2024-10-23