



Jordan University of Science and Technology
Faculty of Pharmacy
Pharmacy Department

PHAR586 Pharmacoepidemiology - JNQF Level: 6

First Semester 2024-2025

Course Catalog

3 Credit Hours. This course addresses a range of study designs and analytic techniques for observational studies on the utilization, safety, and effectiveness of pharmaceuticals. Students will develop an understanding of how to plan, implement, analyze, and criticize pharmacoepidemiologic studies. Original research will be presented by principal investigators, followed by intensive discussions on design options, analytic strategies, and sensitivity analyses of confounding and misclassification bias. Lectures will provide methodological background and will cover applied issues typically encountered in pharmacoepidemiology.

Teaching Method: Electronic Course

Text Book

Title	Pharmacoepidemiology
Author(s)	Storm et al
Edition	6th Edition
Short Name	Ref#1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
RE#2	Understanding Pharmacoepidemiology	Yi Yang et.al	1st Edition	

Instructor

Name	Prof. Mera Ababneh
Office Location	-
Office Hours	
Email	mababneh@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun : 18:30 - 20:00
Room: مزامن الحضور منصة الكترونية

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Introduction to Pharmacoepidemiology	From Ref#1, From RE#2
Weeks 2, 3, 4	Principles of Epidemiology Applied to the study medication use	From Ref#1, From RE#2
Weeks 4, 5	Study designs for Pharmacoepidemiology: cross sectional studies & case-control study	From Ref#1, From RE#2
Week 5	Study designs for Pharmacoepidemiology: cohort study	From Ref#1, From RE#2
Week 6	Study designs for Pharmacoepidemiology: Quasi Experiments	From Ref#1, From RE#2
Week 7	Study designs for Pharmacoepidemiology: ecological study	From Ref#1, From RE#2
Week 8	Medication utilization patterns	From RE#2
Week 9	Medication Safety and Pharmacovigilance	From Ref#1
Weeks 10, 11	Methodological Issues and validity of pharmacoepidemiology data	From RE#2
Weeks 12, 13	Causal Inferences	From Ref#1, From RE#2

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Discuss the concept of pharmacoepidemiology, medication use patterns, and Pharmacovigilance. [1PLO1.1][1L6K2]	15%	
Apply the principles of epidemiology to study medication use. [1PLO1.1][1L6K2]	30%	
Compare typical pharmacoepidemiologic study designs, weaknesses, and strengths. [1PLO3.2][1L6S1]	45%	
Use the information used in this course to compose a written critique for a pharmacoepidemiologic study [1PLO3.1][1L6S1]	10%	

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
45		45					10												

Relationship to NQF Outcomes (Out of 100%)	
L6K2	L6S1
45	55

Evaluation	
Assessment Tool	Weight
Active learning	30%
Midterm exam	30%
Final Exam	40%

Policy	
Cheating	Prohibited; and in case of cheating the student will be subject to punishment according to the university law.
Teaching method	This is an online based course. Online lectures are designed to achieve the course objectives and will be posted weekly. 2. Weekly interactive sessions will be conducted online through Microsoft teams or discussion boards of e-learning. These sessions are designed to be interactive and you should study the material posted and be prepared to discuss and ask questions. 3. At the end of the semester you should submit an article critique according to the instructions posted on e-learning.
Exams	1. The format for the exams is generally (but NOT always) in the form of multiple-choice questions. 2. Grades will not be given out via e-mail.

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