



Jordan University of Science and Technology
Faculty of Pharmacy
Pharmacy Department

PHAR744 Pharmacoeconomics (2)
Second Semester 2023-2024

Course Catalog
2 Credit Hours. This course introduces the central role of pharmacoeconomics (PE) in healthcare decision making from different perspectives. The course explains fundamental methods of PE analysis and illustrates a step-by-step rational approach to select the appropriate analysis method. This course helps students identify, quantify and compare different outcomes (Economic, Clinical, and Humanistic) of pharmaceutical products and services to broaden their skills in comparing treatments, implementing individualized therapeutic plans, and conducting critical appraisal of PE studies.
Teaching Method: On Campus

Text Book	
Title	Essentials of Pharmacoeconomics: Health Economics and Outcomes Research
Author(s)	Karen Rascati
Edition	3rd Edition
Short Name	Ref 1
Other Information	Wolters Kluwer; 2020

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref 2	Pharmacoeconomics: From Theory to Practice	Edited by Renee J.G. Arnold	2nd Edition	CRC Press: Taylor and Francis Group; 2021
Ref 3	Methods for the Economic Evaluation of Health Care Programmes	Drummond et al.	4th Edition	Oxford University Press
Ref 4	Statistical Topics in Health Economics and Outcomes Research	Demissie Alemayehu, PhD, ?Joseph C. Cappelleri, PhD, ?BiroI Emir, PhD	1st Edition	Chapman & Hall

Instructor	
Name	Dr. SHOROQ ALTAWALBEH
Office Location	P2 L-0
Office Hours	Mon : 11:00 - 13:00 Tue : 11:00 - 13:00 Wed : 08:00 - 09:00 Thu : 11:30 - 13:30
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Class Schedule & Room
Section 1: Lecture Time: Tue, Thu : 08:30 - 09:30 Room: N4201

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Overview of the course	

Weeks 2, 3	Decision analysis	From Ref 1 , From Ref 2
Weeks 4, 5	Markov modeling	From Ref 1 , From Ref 2
Weeks 6, 7	Uncertainty in decision analysis (deterministic and probabilistic sensitivity analysis)	From Ref 1 , From Ref 2
Week 8	Critiquing research articles	From Ref 1
Week 9	Budget-impact analysis	From Ref 1 , From Ref 2
Week 10	Evaluating and justifying a clinical Pharmacy service	From Ref 1 , From Ref 2
Week 11	Analysis of Medical cost data: statistical considerations	From Ref 4
Week 12	Drug pricing	From Ref 2
Week 13	Project presentations	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Describe the concepts of decision analysis and Markov modelling [1PLO1.1]	20%	Midterm Exam, Project
Apply the needed steps in decision analysis, Markov modelling, and sensitivity analysis [1PLO2.2]	40%	Midterm Exam, Project, Final exam
Criticize different types Pharmacoeconomic evaluations [1PLO2.3]	10%	Final exam
Appraise the economic value of different pharmacy services [1PLO2.2]	10%	Final exam
Discuss concepts in drug pricing and analysis of medical cost data. [1PLO2.2]	10%	Final exam
Design an appropriate and relevant budget impact analysis [1PLO2.1]	10%	Final exam

Relationship to Program Student Outcomes (Out of 100%)															
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
20	10			60	10										

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

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