

Course E-Syllabus

1	Course title	Pharmacoeconomics
2	Course number	1203401
3	Credit hours	2 (theory)
	Contact hours (theory, practical)	2 (theory)
4	Prerequisites/corequisites	Pharmacology2(1203364)
5	Program title	
6	Program code	
7	Awarding institution	The University of Jordan
8	School	Pharmacy
9	Department	Biopharmaceutics & Clinical Pharmacy
10	Level of course	Undergraduate
11	Year of study and semester (s)	First /second semester of the 4th year
12	Final Qualification	PharmD/Pharmacy
13	Other department (s) involved in teaching the course	No
14	Language of Instruction	English
15	Teaching methodology	<input type="checkbox"/> Blended <input type="checkbox"/> Online <input checked="" type="checkbox"/> Onsite
16	Electronic platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
17	Date of production/revision	10 th Oct 2021

18 Course Coordinator:

Dr Rimal H Mousa

Office 119

Phone 5355000, Ext: 23373

E.mail: R.mousa@ju.edu.jo

Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday
1:30-2:30	✓		✓		

Electronic office hours: Available to students' query

19 Other instructors:

20 Course Description:

As stated in the approved study plan.

Pharmacoeconomics provides an introduction to the principles and tools of pharmacoeconomics and health outcomes assessment that are commonly used to study the cost impact of pharmaceutical products and interventions on healthcare systems and patients. It aims to help the students to understand the basic concepts of Pharmacoeconomics and its application in informing health decisions and resource allocation.

21 Course aims and outcomes:

A- Aims:

This subject aims to provide

1. The basic background of Pharmacoeconomics and introduce Pharmacoeconomics as a new science and career path in future venues
2. An overview on the use and application of Pharmacoeconomics in Jordan and worldwide

B- Course Intended Learning Outcomes (ILOs):

Upon successful completion of this course students will be able to:

Foundational Knowledge

•Develop, integrate, and apply knowledge from the foundational sciences in Clinical sciences (learner)

•Remember

1. To define the basic terms of Pharmacoeconomics in relation to patient, community and health systems

•Understand

2. To outline different types of economic evaluations their use in answering various questions in health
3. To explain the perspectives of economic evaluations and the way they might influence decision analysis and costing of drugs and services.

•Apply

4. To identify relevant costs and outcomes needed to conduct a Pharmacoeconomics analysis
5. To critically appraise published articles on economic evaluation to draw useful conclusions and health decisions

•Analyze

6. To analyze economic decisions within an environment of limited and scarcity of resource

•Evaluate

7. To Evaluate added value of new drugs and interventions compared with available substitutes in the Jordanian market

Skills essential to practice pharmacy

Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems (Manager)

8. To respond to questions within the Jordanian market related to drug registration and pricing

Attitudes and behaviors necessary for personal and professional development

Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution (Problem Solver)

9. To present economic information to decision makers to inform policy and management decisions

10. To adapt Pharmacoeconomics principles and tool when considering health and drug comparisons in clinical and market settings

22. Topic Outline and Schedule:

Week	Lecture	Topic	Teaching Methods*/platform	Evaluation Methods**	Ref
1	1.1	Course orientation	Onsite lecture, Microsoft	Pop quiz, class discussion	1,3

			t Teams, models, recorded lectures and class note		
	1.2	Introduction to health/Pharmacoeconomics,	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,2,4
	1.3				
2	2.1	Basic concepts and terminology in Pharmacoeconomic	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,4,5
	2.2	Determination of cost and outcomes	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,2,3
	2.3				
3	3.1	Perspectives of pharmacoeconomics evaluations	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	
	3.2	Perspectives of pharmacoeconomics evaluations	Onsite lecture Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	6
	3.3				
4	4.1	Type of pharmacoeconomics evaluations 1	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	6
	4.2				
	4.3				
5	5.1	Type of pharmacoeconomics evaluations 2	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	
	5.2				
	5.3				
6	6.1	Quiz, workshop 1			
	6.2	Quiz, workshop 2			
	6.3				

7	7.1	Techniques for the analysis of pharmacoeconomics	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,2,4
	7.2	Decision analysis and incremental cost and outcome	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,2,4
	7.3				
8	8.1	Discounting and inflation in health costs and outcomes	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	1,3,4
	8.2	Workshop3	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	
	8.3				
9	9.1		Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	
	9.2	Sensitivity analysis			
	9.3	Workshop 4			
10	10.1				
	10.2				
	10.3				
11	11.1	Economic modelling	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	2,3
	11.2				
	11.3				
12	12.1	Economic modelling	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	2,3
	12.2	Workshop 5			9
	12.3				

13	13.1	Critical appraisal	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	5
	13.2	Workshop 6	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	2,3
	13.3				
14	14.1	PE Applications	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	2,3
	14.2	Applied pharmacoeconomics and JFDA pricing in Jordan	Onsite lecture, Microsoft Teams, models, recorded lectures and class note	Pop quiz, class discussion	2,3
	14.3				2,3
15	15.1				
	15.2				
	15.3				

- Teaching methods include: Onsite Synchronous lecturing/meeting;
- Evaluation methods include: Homework, Quiz, Exam, assignment...etc

23 Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

ILO/s	Teaching methods	Assessment Methods			
		Mid term	Assignments and HW	Final	Assignment 2
		Wight/density	Wight/density	Wight/density	Wight/density
1	Lectures	5 marks	2 marks	5 marks	-
2	Lectures, Class based discussions	3 marks	3 marks	5 marks	5 marks
3	Lectures, Class based discussions	3 marks	3 marks	3 marks	-
4	Lectures, Class based discussions	4 marks	4 marks	5 marks	-
5	Workshops (Team learning)	5 marks	-	3 marks	
6	Workshops (Team learning), Class based discussions/exercise, Problem based learning	5 marks	-		-
7	Class based discussions/exercise, Problem based learning, Interactive eLearning	6 marks	-		3 marks
8	Workshops (Team learning), Interactive e-Learning		-	6 marks	3 marks
9	Problem based learning	-	3 marks	5 marks	-
10	Class based discussions/exercise	-		5marks	4 marks
Total		30	10	50	10

24 Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

Group project

Students in group of 3-4 will be asked to select a published economic evaluation and critically appraise it. This will be assigned 15 marks. Details will be announced in the second week and submission day and date

Workshop

Two to three workshops are planned during this course. Workshop is a class exercise based on group work. Student will be given 1- 2 tasks with some reading materials and asked to work through them. This would be followed by feedback and class discussion. The tasks intended in this course will includes tasks on understanding, decision making, and critical appraisal of different type of health economic evaluations and this will be assigned 5 marks

25 Course Policies:

A-

Attendance: Mandatory.

First warning – with 4 absences

Last warning – with 5 absences

Failing in the subject – with 6 absences

B- Absences from exams and handing in assignments on time:

Will result in zero achievement unless health report or other significant excuse is documented.

C- Health and safety procedures:

NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The participation, the commitment of cheating will lead to applying all following penalties together

- 1) Failing the subject he/she cheated at
- 2) Failing the other subjects taken in the same course
- 3) Not allowed to register for the next semester. The summer semester is not considered as a semester

Grievance Policy

According to the general policies applied at the University of Jordan for grievance, when there is a complaint or conflict between a student and an academic/staff member or another student, the following procedures must be followed:

1. The student writes a formal complaint describing the situation of conflict to the Dean of the School or the President of the University.
2. Dean or President will first try to resolve the controversy by meeting/listening to both parties.
3. If agreement was not possible, Dean or president forms an investigation committee which will follow, within a specified timeline, the general policies for relevant circumstances. The following points are considered:
 - a. The committee will meet/talk to both parties and witnesses (if applicable) within two weeks of conflict.
 - b. All meetings and discussions are documented according to the university policies.
 - c. Results/ recommendations will be sent to the Dean or President who is responsible for their implementation

E- Grading policy:

Workshops:	10 points
Assignment	10 points
Midterm	30 points
Final Exam:	50 points

Total 100 points

F- Available university services that support achievement in the course:
Classrooms, internet classes:

26 References:

1. A Methods for the economic evaluation of health care programs, Drummond, M.F., M.J. Sculpher, and G.W. Torrance, 2005: Oxford university press. ISBN-13: 978-0198529453
2. ISPOR, Health care cost, quality, and outcomes (ISPOR book of terms). 2003. ISBN-13: 978-0974328904
3. Essentials of Pharmacoeconomics, Rascati, KL. Second Edition Wolters-Kluwer - Lippincott, ISBN-13: 978-1451175936
4. Decision Modelling for Health Economic Evaluation, Briggs A, Claxton K, Sculpher M. 1st Edition. Oxford university press. ISBN-13: 978-0198526629
5. Health Economics for Non-Economists: An Introduction to the Concepts, Methods and Pitfalls of Health Economic Evaluations. Annemans L. Academia P., Gent : c2008. ISBN-13: 978-9038212746
6. Essentials of economic evaluation for health care, Elliott RA, Payne K. Pharmaceutical Press, London. 2005
7. Applied Methods of cost-effectiveness Analysis in Health care. Gray AM, Clarke P.M, Wolstenholme, J.L. Oxford University Press, London. 2012
8. Health Care Economic Made Easy. Daniel Jackson. ISBN: 978 1 904842941
9. Wood et al, 2016. Country-Level Cost-Effectiveness Thresholds: Initial Estimates and the Need for Further Research.
10. Caro JJ, Briggs AH, Siebert U, et al. Modeling good research practices - overview: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force-1. Value Health. 2012;15(5):796-803.

27 Additional information:

Name of Course Coordinator: -----Rimal Mousa----Signature: ----- Date: 13 Oct/2021

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of Curriculum Committee/Faculty: ----- Signature: -----

Dean: ----- Signature: -----