

The Hashemite University



Deanship of Academic Development
and International Outreach



كلية الطب البشري

الجامعة
الهاشمية



عمادة التطوير الأكاديمي
والتواصل الدولي

Syllabus: Health Economics (111501101) First Semester 2024 /2025

COURSE INFORMATION	
Course Name: Health Economics Semester: First year, First Semester Department: Department Pharmacology, Public health and clinical skills Faculty: Faculty of Medicine	Course Code: 111501101 Section: Preclinical course. Core Curriculum: MD program
Day(s) and Time(s): Monday: 10:00-11.00 11:00-12.00 Wednesday: 10:00-11.00 11:00-12.00	Credit Hours: 2 Prerequisites: None
Classroom: - Faculty of medicine Auditorium - Faculty of Applied medical sciences Auditorium	
COURSE DESCRIPTION	
<p>Against a background of increasing demands on limited resources, health economics is exerting an influence on decision making at all levels of health care. Health economics seeks to facilitate decision making by offering an explicit decision-making framework based on the principle of efficiency. It is not the only consideration, but it is an important one and practitioners will need to understand its basic principles and how it can impact on clinical decision making. This course is based to review some of the basic principles of health economics and in particular economic evaluation.</p> <p>This course is specifically designed to enable the medical student to understand the principles of health economic that drive the demand for and supply of medical care in Jordan.</p> <p>After completing this course, the student should be able to understand the logic behind decisions made by physicians, hospitals, managed care organizations, and government as well as the choices made by consumers on individual and aggregate levels. The goal is for students to become better equipped at becoming effective decision-makers, themselves. Emphasis will be placed throughout the course on empirically sound and well-grounded economic theory; however, applications of such theory in real situations that have occurred and/or predicted to occur in the future will be illustrated.</p>	
DELIVERY METHODS	

:The course will be delivered through a combination of active learning strategies. These will include

- PowerPoint lectures and active classroom-based discussion
- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Microsoft forms
- Video summaries from YouTube.

FACULTY INFORMATION

Name	Dr. Omnia Mohammed Anwer Mohammed Elmahdy
Academic Title	Assistant professor
Office Location & number	Second floor 3030
Email Address:	omnia@hu.edu.jo
Office Hours:	Monday 12.00-2.00 PM Wednesday 12.00-2.00 PM <i>Please send an e-mail (omnia@staff.hu.edu.jo) to meet at any other time.</i>

REFERENCES AND LEARNING RESOURCES

1. **Healthcare Economics Made Easy, third edition Paperback**
Author: Daniel Jackson
Scion Publishing Ltd.
September 15, 2021
2. **Introduction to health economics:** By Wonderling, David. Gruen, Reinhold. Black, Nick. Publisher: Open University Press,
3. **Essentials of Health Economics**, Diane M. Dewar: Copyright © 2010 by Jones and Bartlett Publishers, LLC
4. Selected articles and handout documents on health economic issues (will be available to students as paper or electronic versions).

STUDENT LEARNING OUTCOMES MATRIX*

Course Objectives	Course Student Learning Outcomes			Assessment Method
	TOPIC (Subjects & number of lectures/ subject)	SUBJECT	Intended Learning Outcomes	
<ul style="list-style-type: none"> ● Develop an understanding of the basic principles of the major aspects of Health Economics. ● Obtain a thorough foundation in the various fields of Health Economics. ● Develop an understanding of alternative ways of production and delivery of health care. ● Obtain an understanding of the role of Health Economics in other disciplines, and its importance in the medical field. ● Acquire positive attitudes towards further studies in Health Economics and towards the application of Health Economics in other disciplines. ● Shed the light on determinants of health. ● Differentiate between changes in “demand” and changes in “quantity demanded” and identify factors 	Topic (1): (2 lectures)	Introduction-to-Health economics	1.1. Describe the principle of scarcity and its difference from shortage. 1.2. Identify differences between efficiency and effectiveness, and the types of them. 1.3. Define opportunity cost. 1.4. Define health economics. 1.5. Identify definition of health, components of health triangle, and spectrum of health. 1.6. Describe the principle of Health for All and have an idea about ALMA ATA DECLARATION	<ul style="list-style-type: none"> ● Exams: MCQs ● Quizzes, Microsoft forms, ● “On-line’ reading assignments ● homework assignments and worksheet ● Quiz in the lectures.
	Topic (2): (2 lectures)	Levels of healthcare	2.1. Identify types of Health care services 2.2. Describe the different types and characteristics of health care, primary, secondary, and tertiary health care. 2.3. List some of descriptive Epidemiological Characteristics	
	Topic (3): (2 lectures)	Why Health Economics?	3.1. Develop a positive attitude towards Health Economics and its applications in society, and towards further study and lifelong learning. 3.2. Identify Important similarities and differences between physicians and economists. 3.3. Explain the Contribution of economics in health care services and its perspectives. 3.4. Difference between health equity and health equality. 3.5. List factors that are help ranking problems, needs or solutions. 3.6. Explain in details why is healthcare cost rising so quickly. 3.7. Identify the concept of Universal Health coverage	
	Topic (4): (3 lectures)	The ten principles of economics	4.1. Discuss the four principles of How people make decisions	

<p>which may facilitate changes in either.</p> <ul style="list-style-type: none"> Define the following terms: fixed cost, variable cost, marginal cost, marginal analysis, opportunity cost, and universal cost. factors which affect the demand for medical care; predict the effect of certain occurrences (i.e., changes in income, recession, shifts in insurance policy) on the demand for medical care. Identify paying methods of health care providers Understand methods of economic evaluation. Understand health care financing. Discuss hospital indices. 			<p>4.2. Explain the three principles that control how people interact with each other.</p> <p>4.3. Identify the three principles that control forces and trends affecting how the economy as a whole works.</p> <p>4.4. Apply the ten principles with practical examples.</p>	
	<p>Topic (5): (3 lectures)</p>	<p>Healthcare Economic Terms: Cost</p>	<p>5.1. Define cost and identify stages of costing health care services.</p> <p>5.2. List different types of classifications of costs, and identify types of costs in each classification.</p> <p>5.3. Apply with practical examples.</p> <p>5.4. Differentiate between macro and microeconomics.</p> <p>5.5. Differentiate between fiscal and monetary economic policies.</p>	
	<p>Topic (6): (3 lectures)</p>	<p>Economic Terms-NEED, WANT and DEMAND, SUPPLY</p>	<p>6.1. Define needs, wants, and demands.</p> <p>6.2. Identify basic and higher needs, and apply them by using Maslow's hierarchy of needs.</p> <p>6.3. Discuss law of demand, demand schedule, and demand curve.</p> <p>6.4. Describe Grossman model of demand for health.</p> <p>6.5. Differentiate between substitutes and complements.</p> <p>6.6. Discuss law of supply, supply schedule, and supply curve.</p> <p>6.7. Define equilibrium and spot equilibrium price on demand-supply curve.</p>	
<p>Topic (7): (2 lectures)</p>	<p>Burden of disease (cost of illness)</p>	<p>7.1. Define global burden of disease, and identify the aim of studying cost of illness.</p> <p>7.2. Describe the concept of Quality of life, and list its dimensions.</p> <p>7.3. Define life expectancy, and mention factors affecting it across countries and in Jordan.</p> <p>7.4. List different methods in calculating life expectancy, and represent them graphically.</p> <p>7.5. Define prevalence of disease and how it can be used to assess the burden of illness, with examples.</p> <p>7.6. Describe how impact of disease on resources can be used to assess the burden of illness, with examples.</p> <p>7.7. Identify how to calculate the impact of illness on disability-adjusted life years (DALYs) and quality-adjusted life years (QALYs).</p>		

		7.8. Describe uses of DALYs, identify its formula, and apply with examples. 7.9. Describe uses of QALYs, and how to apply it graphically to Compare between interventions 7.10. Define Standard gamble method.	
First exam			
Topic (8): (3 lectures)	Healthcare financing	8.1. Identify the concept of affordability and its uses. 8.2. List the main methods of financing for health care, and effect of choosing methods. 8.3. Describe Health financing functions. 8.4. List modes of Paying for Healthcare: governmental spend, out-of-pocket payment, private sector, and health insurance. 8.5. Discuss application, advantages, and disadvantages of each of these methods of payment, provided with practical examples. 8.6. Discuss health insurance in details, regarding: definition, basics and need for it, health insurance sector, insurance glossary, premium, co-payment and coinsurance. 8.7. Classify types of health insurance administratively, from Benefits point of view, and group VS individual plans. 8.8. Identify health insurance system in Jordan and its main contributors. 8.9. List problems facing health insurance. 8.10. Describe payment methods for health care providers.	
Topic (9): (3 lectures)	Elasticity	9.1. Define elasticity. 9.2. Discuss price elasticity of demand and supply regarding: definition, determinants. 9.3. Calculate price elasticity of demand formula using the mid-point method and apply by examples. 9.4. Identify different curves of price elasticity of demand and supply, and the slope of these curves. 9.5. Compare price elastic VS inelastic demand effect on total revenue. 9.6. Describe income elasticity of demand and normal VS inferior goods, and apply by examples.	

			9.7. Describe cross-elasticity of demand and, accordingly, identify substitutes VS complements, and apply by examples.	
	Topic (10): (4 lectures)	Economic evaluation	10.1. Define economic evaluation and identify its importance. 10.2. Distinguish the different types of economic evaluation: 10.2.a. Cost-minimization analysis 10.2.b. Cost-effectiveness analysis 10.2.c. Cost-benefit analysis 10.2.d. Cost-utility analysis 10.3. List uses, advantages, and disadvantages of the above measure. 10.4. Describe how to use economic evaluation measures in choosing among competing options, setting Priorities, and in Pharmacoeconomics. 10.5. Identify Cost-utility analysis formulas: average, and incremental cost-effectiveness ratio. 10.6. Discuss Cost-effectiveness plane, and how to use it in decision making. 10.7. Apply economic evaluation measures with different examples	
	Topic (11): (1 lectures)	Indices of hospital performance	11.a. Define hospital utilization. 11.b. Identify indices related to the population at risk. 11.c. List the most common indices related to the hospital. 11.d. Apply hospital indices with practical examples.	
Final exam				

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate, and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section: Student Services and Care Unit

Tel: 053903333 ext. 4132 / 4583 / 5023

Location: Deanship of Students Affairs

Email: stydent@hu.edu.jo

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. Those exceeding this limit of 15% will receive a failing grade regardless of their performance. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples, and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images, or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph, or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Late or Missed exams:

- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with university regulations an incomplete grade for the specific assessment will be awarded and an alternative essay exam can be arranged.
- Students who fail to attend an exam, on the scheduled date without prior permission, and/or are unable to provide an accepted medical note, will automatically receive a fail grade for this part of the assessment.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Deadline Assessment
Mid exam	50 %	TBD
Final Exam	50 %	TBD

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. **Exam will consist of multiple- choice questions for the regular exam and short essay questions for make-up exams.**

Make-up exams will be held for those who misses the exam, only for individuals who present official medical excuse. Only documented absences will be considered as per HU guidelines.

Grades are not negotiable and are awarded according to the following criteria*:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION 2024-2025

Note: For Health Economics (111500101) with 2 lecture periods per week (Monday /Wednesday), one lecture period covers (50 minutes). The course content specifies lectures handouts that will be included in quizzes, homework and exams.

Week	Topic	Number of lectures
1 Oct. (7, 9) 2024	● Topic (1): Introduction-to-Health economics	2
2 Oct. (14, 16) 2024	● Topic (2): Levels of healthcare	2
3 Oct. (21, 23) 2024	● Topic (3): Why Health Economics?	2
4 Oct. (28, 30) 2024	● Topic (4): The ten principles of economics	2
5 Nov. (4, 6) 2024	● Topic (4): The ten principles of economics ● Topic (5): Healthcare Economic Terms: Cost	1 1
6 Nov. (11, 13) 2024	● Topic (5): Healthcare Economic Terms: Cost	2

7 Nov. (18, 20) 2024	<ul style="list-style-type: none"> ● Topic (6): Economic Terms-NEED, WANT and DEMAND, SUPPLY 	2
8 Nov. (25, 27) 2024	<ul style="list-style-type: none"> ● Topic (6): Economic Terms- NEED, WANT And DEMAND, SUPPLY ● Topic (7): Burden of disease (cost of illness) 	1 1
9 Dec. (2, 4) 2024	<ul style="list-style-type: none"> ● Topic (7): Burden of disease (cost of illness) ● Topic (8): Healthcare financing 	1 1
10 Dec. (9, 11) 2024	<ul style="list-style-type: none"> ● Topic (8): Healthcare financing 	2
11 Dec. (16, 18) 2024	<ul style="list-style-type: none"> ● Topic (9): Elasticity 	2
12 Dec. (23, 25) 2024	<ul style="list-style-type: none"> ● Topic (9): Elasticity ● Topic (10): Economic evaluation 	1 1
13 Dec. (30) 2024 Jan. (1) 2025	<ul style="list-style-type: none"> ● Topic (10): Economic evaluation 	2
14 Jan. (6, 8) 2025	<ul style="list-style-type: none"> ● Topic (10): Economic evaluation ● Topic (11): Indices of hospital performance 	1 1