Deanship of Academic Development
and International Outreach

The Hashemite University

HEALTH ECONOMICS (111501101)

First Year - First Semester



2025/2026

Syllabus*: Health Economics (111501101)

First Year– First Semester 2025 /2026

COURSE INFORMATION		
Course Name: Health Economics **Semester:** First semester, First year **Department:** Pharmacology, Public Health and Clinical Skills		**Course Code:** 111501101 **Core Curriculum**: MD program **Section**: Preclinical course **Faculty:** Medicine
Day(s) and Time(s): Monday Wednesday	 10:00-11.00 12:00-1:00 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

- 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 .
- This course is specifically designed to enable the medical students to understand the principles of health economic that drive the demand for and supply of medical care in Jordan .
- 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 .

DELIVERY METHODS

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

- PowerPoint lectures and active classroom-based discussions

- Video lectures
- E-learning resources: e-reading assignments and practice quizzes through Microsoft forms
- Video summaries from YouTube.
- Self-directed learning

FACULTY INFORMATION

Name	**Dr. Omnia Mohammed Anwer Elmahdy (Course Coordinator)**
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Name	**Dr. Mohannad Saleh Ramadan**
Academic Title:	Assistant Professor- Public Health
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REFERENCES AND LEARNING RESOURCES

- Healthcare Economics Made Easy, third edition Paperback, Author: Daniel Jackson, Scion Publishing Ltd, September 15, 2021
- Introduction to health economics: By Wonderling, David. Gruen, Reinhold. Black, Nick. Publisher: Open University Press, 2005
- Essentials of Health Economics, Diane M. Dewar: Copyright © 2010 by Jones and Bartlett Publishers, LLC
- Selected articles and handout documents on health economic issues (will be available to students as paper or electronic versions).
- Online sources supporting self-directed learning

The course objectives

By the end of the course, the student will be able to:

- 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.
- Differentiate between changes in "demand" and changes in "quantity demanded" and identify factors which may facilitate changes in either.
- Define the following terms: fixed cost, variable cost, marginal cost, marginal analysis, opportunity cost, and universal cost.
- Identify 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 health insurance system in Jordan.

TOPICS DETAILS/ STUDENT LEARNING OUTCOMES MATRIX *

Course Student Learning Outcomes		
TOPIC (and number of lectures)	**SUBJECT**	**Intended Learning Outcomes**
***T0 /;** **Introduction to the course:** (1 lecture)	• Definition. • Objectives. • Syllabus. • Teaching methods. • Assessment.	▪ Understand the course structure, objectives, content, and timeline. ▪ Explore the course syllabus. ▪ Identify the course MS Teams. ▪ Recognize the teaching methods used (lectures, videos, homework and quizzes). ▪ Clarify responsibilities and lecture rules. ▪ Identify assessment methods.
***T1** **Introduction-to-Health economics:** (2 lectures)	• Definition • Scarcity VS Shortage • Efficiency, effectiveness	▪ 1.a. Describe the principle of scarcity and its difference from shortage. ▪ 1.b. Identify differences between efficiency and effectiveness, and the types of them. ▪ 1.c. Define opportunity cost. ▪ 1.d. Define health economics. ▪ 1.e. Identify definition of health, components of health triangle, and spectrum of health. ▪ 1.f. Describe the principle of Health for All and have an idea about ALMA ATA DECLARATION

***T2** **Levels of healthcare:** **(**2 lectures)	• Primary, secondary, tertiary healthcare	▪ 2.a .Identify types of Health care services ▪ 2.b .Describe the different types and characteristics of health care, primary, secondary, and tertiary health care. ▪ 2.c. List some of descriptive Epidemiological Characteristics
***T3** **Why Health Economics?** **(**2 lectures)	• Functions • Contribution of economics • Equity VS equality • Health cost rise • Universal Health coverage	▪ 3.a .Develop a positive attitude towards Health Economics and its applications in society, and towards further study and lifelong learning. ▪ 3.b .Identify Important similarities and differences between physicians and economists. ▪ 3.c .Explain the Contribution of economics in health care services and its perspectives. ▪ 3.d .Difference between health equity and health equality. ▪ 3.e .List factors that are help ranking problems, needs or solutions. ▪ 3.f .Explain in details why is healthcare cost rising so quickly. ▪ 3.g. Identify the concept of Universal Health coverage
T4: **The ten principles of economics:** (3 lectures)	• The 10 principles.	▪ 4.a .Discuss the four principles of How people make decisions ▪ 4.b .Explain the three principles that control how people interact with each other. ▪ 4.c .Identify the three principles that control forces and trends affecting how the economy as a whole works. ▪ 4.d. Apply the ten principles with practical examples.
T5: **Healthcare Economic Terms: Cost:** (3 lectures)	• Classifications .	▪ 5.a. Define cost and identify stages of costing health care services. ▪ 5.b .List different types of classifications of costs, and identify types of costs in each classification. ▪ 5.c .Apply with practical examples. . 5.d. Differentiate between macro and microeconomics.
T6: **Economic Terms: (Need, Want, Demand, and Supply):** (3 lectures)	• Needs, wants, demands, and supply • Laws and curves • Maslow's hierarchy • Grossman model	▪ 6.a .Define needs, wants, and demands. ▪ 6.b .Identify basic and higher needs, and apply them by using Maslow's hierarchy of needs. ▪ 6.c .Discuss law of demand, demand schedule, and demand curve. ▪ 6.d .Describe Grossman model of demand for health. ▪ 6.e .Differentiate between substitutes and complements. ▪ 6.f .Discuss law of supply, supply schedule, and supply curve. ▪ 6.g. Define equilibrium and spot equilibrium price on demand-supply curve.
T7: **Burden of disease (cost of illness):** (2 lectures)	• GBD • QOL, DALYs, QALYs • Life expectancy	▪ 7.a .Define global burden of disease, and identify the aim of studying cost of illness. ▪ 7.b .Describe the concept of Quality of life, and list its dimensions . ▪ 7.c .Define life expectancy, and mention factors affecting it across countries and in Jordan. ▪ 7.d .List different methods in calculating life expectancy, and represent them graphically.

	• Standard gamble method	▪ 7.e .Define prevalence of disease and how it can be used to assess the burden of illness, with examples. ▪ 7.f .Describe how impact of disease on resources can be used to assess the burden of illness, with examples. ▪ 7.g .Identify how to calculate the impact of illness on disability-adjusted life years (DALYs) and quality-adjusted life years (QALYs). ▪ 7.h .Describe uses of DALYs, identify its formula, and apply with examples. ▪ 7.i .Describe uses of QALYs, and how to apply it graphically to Compare between interventions ▪ 7.j. Define Standard gamble method.
T8: Elasticity: (3 lectures)	• Price elasticity of demand and supply • Income elasticity of demand • Cross-elasticity of demand.	▪ 8.a .Define elasticity. ▪ 8.b .Discuss price elasticity of demand and supply regarding: definition, determinants. ▪ 8.c .Calculate price elasticity of demand formula using the mid-point method and apply by examples. ▪ 8.d .Identify different curves of price elasticity of demand and supply, and the slope of these curves. ▪ 8.e .Compare price elastic VS inelastic demand effect on total revenue . ▪ 8.f .Describe income elasticity of demand and normal VS inferior goods, and apply by examples. ▪ 8.g. Describe cross-elasticity of demand and, accordingly, identify substitutes VS complements, and apply by examples.
T9: Healthcare financing: (4 lectures)	• Affordability • Modes of Paying for Healthcare. • Health insurance. • Payment methods for health care providers.	▪ 9.a .Identify the concept of affordability and its uses. ▪ 9.b .List the main methods of financing for health care, and effect of choosing methods. ▪ 9.c .Describe Health financing functions. ▪ 8.d .List modes of Paying for Healthcare: governmental spend, out-of-pocket payment, private sector, and health insurance. ▪ 9.e .Discuss application, advantages, and disadvantages of each of these methods of payment, provided with practical examples. ▪ 9.f .Discuss health insurance in details, regarding: definition, basics and need for it, health insurance sector, insurance glossary, premium, co-payment and coinsurance. ▪ 9.g .Classify types of health insurance administratively, from Benefits point of view, and group VS individual plans. ▪ 9.h .Identify health insurance system in Jordan and its main contributors. ▪ 9.i .List problems facing health insurance. ▪ 9.j .Describe payment methods for health care providers.
T10: Economic evaluation: (4 lectures)	• Cost-minimization analysis • Cost-effectiveness analysis	▪ 10.a .Define economic evaluation and identify its importance. ▪ 10.b .Distinguish the different types of economic evaluation :Cost-minimization analysis, Cost-effectiveness analysis, Cost-benefit analysis, and Cost-utility analysis. ▪ 10.c .List uses, advantages, and disadvantages of the above measure. ▪ 10.d .Describe how to use economic evaluation measures in choosing among competing options, setting Priorities, and in Pharmacoeconomics.

	• Cost-benefit analysis • Cost-utility analysis	▪ 10.e .Identify Cost-utility analysis formulas: average, and incremental cost-effectiveness ratio. ▪ 10.f .Discuss Cost-effectiveness plane, and how to use it in decision making. ▪ 10.j .Apply economic evaluation measures with different examples

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 needs.

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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 offense 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 behaviors 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 all cases of assessment, 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.

- Submitting a term assignment or class project on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty. Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.
- 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 assessment or extension can be arranged.

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 as listed below, with their grade weighting taken into account.

Please use the following table:

Assessment	Grade Weighting	Deadline Assessment
Mid exam	50%	12/2025
Final Exam	50%	1/2026

Description of Exams

Test questions will predominately come from the material presented in the lectures. The exam will consist of multiple-choice questions for the regular exams and short essay questions for makeup exams (for students with accepted excuses, only documented absences will be considered as per HU guidelines).

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

Test questions will predominately come from the material presented in the lectures. The exam will consist of multiple-choice questions for the regular exams and short essay questions for makeup exams (for students with accepted excuses, only documented absences will be considered as per HU guidelines).

Grades are not negotiable and are awarded to the *MD program* 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	-

The lectures schedule might be adjusted during the course process according to the students' feedback and the teachers' evaluation of the learning process.

WITH ALL MY BEST WISHES

DR. OMNIA MOHAMMED ELMAHDY