



COURSE UNIT DESCRIPTION

Course unit title	Code
Health economics and management	

Annotation
<p>This course provides an understanding of health economics principles and their application in the pharmacy sector. Students will explore key economic concepts such as demand and supply, cost-effectiveness, health policy, and resource allocation within healthcare. Special emphasis is placed on the economics of pharmaceuticals, including drug pricing, cost containment strategies, and economic evaluation of medications and therapies. Additionally, the course covers management principles, such as budgeting, marketing, supply chain management, quality assurance and leadership.</p> <p>Through case studies and practical examples, students will gain insights into the decision-making process in pharmaceutical services and understand the economic and managerial challenges that impact pharmacy practice. By the end of the course, students will be able to apply economic reasoning to improve healthcare outcomes, manage resources efficiently and apply management principles to optimize pharmacy operations.</p>

Lecturer(s)	Department, Faculty
Coordinating: assoc. prof. dr. Indrė Trečiokienė	Faculty of Medicine, Biomedical research Institute Pharmacy and Pharmacology center Geležinio Vilko str.. 29a, Vilnius E-mail of coordinating lecture: indre.treciokiene@mf.vu.lt

Study cycle	Type of the course unit
Integrated studies	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Auditorium/hybrid	Spring semester	Lithuanian/English

Requisites	
Prerequisites: none	Co-requisites (if relevant): none

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	135 hours	64	71

Purpose of the course unit: programme competences to be developed			
The main goal of the subject is to acquire knowledge about the principles of health economics and the management principles and operational processes of a pharmaceutical company, their management, components of economic activity, logistics and marketing principles.			
Learning outcomes of the study programme	Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Health economics module			

1.1. 1.6. 1.7.	Will be able to use health technology assessments, i.e. understand the question of the analysis, the method used in the analysis, the expression of the results, the practical significance in the regulation of the prices of new drugs	Lectures in the virtual learning environment (the information presented outlines the main topics of the course) Seminars (applies to a group discussion based on predetermined questions aimed at making students understand certain circumstances, draw conclusions, or help them achieve a certain study result); exercises (the "flipped class" principle is applied, i.e. students get to know a new topic at home, and discuss and consolidate it during class in the auditorium);	Formative assessment. In the case of a practice test, the following is assessed: - prepared answers to questions; - objective and reasoned criticism of the given answer by other exercise participants; Criterion evaluation During the exam, knowledge acquired during studies and interpretation abilities are evaluated
Module of management basics in pharmacy			
1.1.	Will know the basic principles of economics, the importance of logistics in a modern company, the principles of the supply chain, the main types of transport, their advantages and disadvantages; the main elements of marketing and the specifics of the pharmaceutical market, will know the principles of pricing and sales.	Interactive lectures, lectures in the virtual learning environment (VMA).	Diagnostic evaluation, exam
1.6 1.7	Will be able to think strategically, plan and develop new pharmaceutical products or services, analyze and evaluate the need for logistics, the importance of integration into the company's activities, plan, analyze and evaluate communication and marketing projects and their results.	Project-based learning is a project carried out by teams, a problem is formulated and solved by applying existing knowledge. Work during exercises and seminars.	Formative assessment, concept map, performance tasks, presentation of project results in the audience

3.8.	Will be able to analyze and evaluate the performance of the pharmaceutical company, forecast costs and expenses.	Case analysis method, FR examples of companies are presented, data is analyzed, problematic questions are raised. Work during exercises and seminars.	Formative assessment, independent work and problem solving
5.1. 5.5. 6.1.	Will be able to cooperate, solve problems, recognize cultural differences and work in a team, develop leadership qualities.	Directed and experiential learning, discussions, reflection in groups and in the audience. Work during exercises and seminars	Formative assessment, summary, reflections

Course content: breakdown of the topics	Contact hours						Individual work: time and assignments		
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship/work	Contact hours, total	Individual work	Assignments
Health economics									
1. Introduction to health economics. The most important economic concepts and methods. Peculiarities of health economics.	2			2			4	4	Reading educational material, preparing for the exercise discussion on topic related questions
2. Cost-effectiveness analyses. Aims of different types of analyses.	2			2			4	4	Reading educational material, preparing for the exercise discussion on topic related questions
3. Units of benefit in drug economic analyses. Necessary attributes of cost analysis. Uncertainty of analyses.	2			2			4	4	Reading educational material, preparing for the exercise discussion on topic related questions
4. Pricing rules, price regulation.	2			2			4	4	Reading educational material, preparing for the exercise discussion on topic related questions
Management basics in pharmacy									
5. Economy and pharmaceutical sector. Principles of organizational activity, management of organizations. Strategy, establishment of companies. Development of new products or services in the pharmaceutical sector.	2		2	2			6	8	Analysis of literature on organization and their management. Choose/create a pharmaceutical company and prepare for exercises. Group project preparation.
6. Marketing. Marketing goals and objectives. Marketing and sales in	2		4	6			12	12	Searching for information about the selected

the pharmaceutical sector. Marketing strategy. Brands and their management								pharmaceutical product or service, preparing for exercises. Analysis of the selected pharmaceutical company/product advertising company. Group project preparation.
7. Marketing. Marketing communication.	2		4			6	6	Preparation to present, analyze and critically evaluate the selected advertisement/communication and its consequences for the pharmaceutical company/product. Group project preparation.
8. Finances. Financial management and financial reporting. Basics of accounting. Taxes	0	2	6			8	8	Prepare for the exercise to analyze the financial performance of the selected company. Financial reporting analysis of the selected pharmaceutical company; analysis of costs and expenses, forecasting of pharmacy costs and expenses, individual tasks.
9. Logistics. Logistics in a modern company. Organization of logistics and types of transport.	2		2			4	5	Analysis of scientific literature on logistics and its place in the modern company. Comparison of the two selected modes of transport, evaluating their advantages and disadvantages. Group project preparation.
10. Logistics. Supply chain management. Good distribution practice	0	4	2			6	6	Prepare for a seminar on supply chain and inventory management, their main issues. Inventory management in wholesale pharmaceutical companies.
11. Sales. Sales strategies, direct sales	0	2	2			4	4	Preparation for a seminar on sales strategies and their application in the pharmaceutical sector. Analysis of scientific literature on sales strategies in the pharmaceutical sector.
12. Intercultural differences and organizational culture. Management and leadership of organizations.	0	2				2	6	Prepare for a seminar on the peculiarities of international pharmaceutical business, cross-cultural differences, discussion of essential

								aspects; preparation for reflection.
Total	16		16	3 2			64	71

Assessment strategy	Weight %	Deadline	Assessment criteria
Work during seminars and exercises	50%	During semester	The assignment plan is presented during the first session and at the VMA. Evaluation criteria are provided for each task, located in VMA. Health economics part tasks 25% Tasks of management basics in pharmacy 75% Evaluation criteria are provided for each task, located in VMA.
Exam: Test 1 (mid-semester) and Test 2 (end-of-semester)	50%	During semester and in June	If 50% or more of the seminar and practice tasks are missed/unreported, the exam cannot be taken. Test 1 - assesses how the student mastered the material of topics 1-4 (25%) Test 2 - assesses how the student mastered the material of topics 5-12 (75%) Tests are hosted in the VMA system. Values of scoring: 10 - excellent knowledge and abilities; 9 - very good knowledge and abilities; 8 - good knowledge and abilities, there may be minor errors, 7 - average knowledge and abilities, there are minor errors; 6 - satisfactory knowledge and abilities, there are errors; 5 - weak knowledge and abilities that still meet the minimum requirements, there are many errors; 1-4 - the minimum requirements are not met. 0 - the test is not considered.
Total	100%		Cumulative estimate of all parts.

Author	Publishing year	Title	Issue of a periodical or volume of a publication; pages	Publishing house or internet site
Required reading				
Gavelis et. al	2017	Makroekonomika		Vilniaus universiteto leidykla
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Haycox A.	2009	What is Health Economics?		Open source: http://www.bandolier.org.uk/painres/download/what_is/What_is_health_econ.pdf
Karen L. Rascati	2009	Essentials of Pharmacoeconomics, Chapters 1-3		Wolters Kluwer/Lippincott Williams & Wilkins
Subačienė et al.	2015	Apskaitos ir audito pagrindai		Vilniaus universiteto leidykla Open source: http://talpykla.elaba.lt/elab

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Recommended reading				
Ceri J. Philips	2008	Health economics: An Introduction for Health professionals		Open source: http://irhea.ir/files/site1/health_economics__an_introduction_for_health_professionals.pdf
Ph. Kotler, K. Keller	2016	Marketing Management (15th Edition)		Pearson education, Inc.
Murauskiene L., et al.	2013	Lithuania: health system review. Health Systems in Transition, Chapter 3	15(2)	Open source: http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits/full-list-of-country-hits/lithuania-hit-2013
R. Palšaitis	2010	Šiuolaikinė logistika		VGTU leidykla Technika