



UNIVERSITY OF
PATRAS
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ

DEPARTMENT OF PHARMACY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY OF PATRAS
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DEPARTMENT OF PHARMACY
UNDERGRADUATE STUDIES' COURSES



COURSE DESCRIPTION: **PHARMACO-ECONOMICS**
COURSE CODE: **PHA-E14-NEW**

**PHARMACO-ECONOMICS
COURSE DESCRIPTION**

1. GENERAL

SCHOOL	HEALTH SCIENCES		
SEPARTMENT	PHARMACY		
LEVEL OF COURSE	UNDERGRADUATE		
COURSE CODE	PHA-E14-NEW	SEMESTER OF STUDIES	9th
COURSE TITLE	PHARMACO-ECONOMICS		
INDEPENDENT TEACHING ACTIVITIES	TEACHING HOURS PER WEEK	ECTS CREDITS	
Lectures	3	2	
COURSE TYPE	Scientific Field course		
PREREQUISITE COURSES:	-		
TEACHING AND ASSESSMENT LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes [Instructed/Guided self study in english for Erasmus+ Students]		
COURSE WEBPAGE (URL)	http://www.pharmacy.upatras.gr/images/DS/PHA-E14-EN.pdf		

2. LEARNING OUTCOMES

Learning Outcomes
<p>The Learning Outcomes of this course corresponding to Level 7, comprise the following:</p> <ul style="list-style-type: none"> • Highly specialized knowledge, some of it cutting-edge in the field of Pharmaco-economics, as a base for innovative thinking and research • Critical understanding of the knowledge status in this particular field and its interrelationship with other fields • Specialized skills for problem-solving, necessary in research and/or in innovation, in order to generate novel knowledge and processes • Management and evolution in changing, unpredictable and complex work environments, requiring novel strategic approaches • Responsibility for contributing to the enrichment of professional knowledge and practice in the field <p>Specifically, upon successful completion of the course the student will be able to:</p> <ul style="list-style-type: none"> • Understand the role of pharmaco-economics in health economics and in particular in making rational and substantiated decisions. • Know basic cost concepts and data collection methods. • Understand and distinguish different methods of economic evaluation. • Know how to apply the different methods of economic analysis for the evaluation of medicines and medical technologies. • Understand the importance of sensitivity analysis and the concept of present value in pharmaco-economic analysis

- Know the differences between economic analyzes according to the needs of different decision makers and how they can make use of the results of an economic evaluation in practice.
- Analyze and evaluate methodically the validity of published pharmaco-economic studies.
- Use the data of pharmaco-economic research in the quality of life assessment
- Use the results of the therapeutic outcome in the decision-making process
- Design a basic pharmaco-economic analysis including all relevant parameters

General Abilities

- Search, analysis and synthesis of data and information, using the necessary technologies
- Adaptation to new situations
- Autonomous work
- Teamwork
- Decision making
- Working in an international environment
- Working in an interdisciplinary environment
- Criticism and self-criticism
- Promotion of free, creative and inductive thinking

3. COURSE CONTENT

- Fundamentals of Pharmaco-Economics and Health Economics
- Stages of pharmaco-economic analysis
- Perspective of the study
- Specifying the alternative interventions
- Specifying and measuring the results of pharmaco-economic evaluation
- Specifying and measuring the cost of pharmaco-economic evaluation
- Sensitivity Analysis and Discounting (Present Value)
- Data sources of pharmaco-economic evaluation
- Selection of pharmaco-economic application strategy
- Restrictions of pharmaco-economic evaluations based on RCT
- Pharmaco-economic modelling (Basic principles, Model types, Decision Trees, Markov Chains)
- Cost-of-illness analysis
- Cost minimization analysis
- Cost-benefit analysis
- Cost-effectiveness analysis
- Cost-utility analysis
- Measuring health status and health related quality of life
- Designing and organizing a pharmaco-economic evaluation
- Basic principles of designing health outcomes studies
- Basic statistical methods applied to pharmaco-economic analyses
- disease Cost analysis
- Principles and methods of comparative benefit-risk assessment
- Analysis and evaluation of the validity of published pharmaco-economic studies
- Case-studies

4. TEACHING AND LEARNING METHODS - ASSESSMENT

Teaching method	Face to face	
Use of information and communication technologies	ICT is used for communicating with students and for sharing educational material, mainly through the eclass platform (announcements, lecture slides and additional educational resources, posting and receiving projects and assignments, students groups, for a, email, exercises, glossary, multimedia resources), as well as via typical email.	
Teaching organization	Teaching Method	Semester Workload
	Lectures	26
	Teamwork for a case study	10
	Unsupervised study	14
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	50
STUDENT ASSESSMENT	I. Written final exam (80%) comprising: <ul style="list-style-type: none"> • Essay Questions • Short Response Questions • Problem solving II. Presentation of Group Written Assignment (20%)	

5. RECOMMENDED LITERATURE

Suggested Literature:

1. Morris S., Devlin N., 2016, Η Οικονομική Ανάλυση στη Φροντίδα Υγείας, BROKEN HILL PUBLISHERS LTD.
2. Drummond M, O'Brien B, Stoddart G, Torrance G, 2002. Μέθοδοι οικονομικής αξιολόγησης των προγραμμάτων υγείας. Αθήνα: Εκδόσεις Κριτική.
3. Κυριόπουλος Γ, Γείτονα Μ, 2008. Τα οικονομικά της υγείας. Εκδόσεις Παπαζήση.
4. Teaching notes as supplementary material. Available at the course's e-class
5. Rascati, K., 2014. Essentials of Pharmacoeconomics. Philadelphia, PA: Lippincott Williams&Wilkins.
6. Arnold, R., 2010 Pharmacoeconomics: From Theory to Practice. CRC Press.