



**FACULTY OF PHARMACY  
MEDICAL UNIVERSITY SOFIA**

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Approved from the Faculty council with protocol: No 3/04.05.2022 г

DEAN:

/prof. Al.Zlatkov, DSc/

**DEPARTMENT “ORGANIZATION AND ECONOMICS OF PHARMACY”**

**SYLLABUS  
of  
Pharmacoeconomics**

INCLUDED IN “PHARMACY” EDUCATION CURRICULUM

DEGREE OF EDUCATION: “**MASTER**”

CREDITS (ECTS): **5**

**ANNOTATION**

Economic research in health care has become important in the last few years due to resource constraints and increasing societal expectations of drug therapy. Pharmacoeconomics has been defined as "the discipline of analyzing (collecting, calculating, comparing) the costs of therapy and the effects of treatment", and in recent years, its field of application in pharmaceuticals has expanded to include the decision to discontinue or continue drug development, as well as its pricing, reimbursement and introduction into therapeutic practice, and marketing policy.

The aim of the course is to provide students with a basic understanding of the conceptual apparatus of pharmacoeconomics, the basic methods, computational techniques and tools applied in pharmacoeconomic assessment of the cost and consequences of drug therapy, and with the use of pharmacoeconomic evidence in regulatory and applied pharmacy practice.

The programme examines issues related to pharmacoeconomic research on drugs, basic pharmacoeconomic methods, drug costs; pharmacoeconomics in various applied areas, such as the pricing of a drug or group of drugs compared with others; the cost of drug therapy under different therapeutic approaches; the costs and outcomes of new product introduction, reimbursement and pricing of new products, etc.

The concept of health technology assessment introduced into regulatory practice in the last few years requires as a mandatory part a pharmacoeconomic evaluation of any new technology, which justifies the need to include it in training. This necessitates to expand the knowledge of pharmacists in pharmacoeconomics to be able to work fluently with the terminology, correctly apply FI methods and analyze the results obtained.

With their knowledge of the chemistry, technology, pharmacology of drugs and social pharmacy, pharmacists are well suited to further develop pharmacoeconomics because they know both the nature of drugs and the socioeconomic environment of their distribution.

The acquisition of knowledge in pharmacoeconomics is linked to the expansion of pharmacists' knowledge of their surrounding social and economic environment and the provision of evidence for informed managerial and therapeutic decision-making.

At the end of the course, students should be able to critically evaluate pharmacoeconomic analyses, conduct such analyses independently, be familiar with basic methods and computational techniques, and know the legislative requirements for evaluating new health technologies.

**Type of control and evaluation:** The evaluation of students is based on an examination of overall preparation, participation in the process of knowledge acquisition during the two semesters, independent work and ongoing control through two colloquia.

## English language training

### SYLLABUS

1. Theoretical foundations of pharmacoeconomics.
2. Origin and estimation of drug therapy costs.
3. Origin, evaluation and measurement of drug therapy outcomes.
4. Cost analysis of disease treatment. Cost-minimum analysis and its application to assess opportunities to reduce the cost of drug therapy.
5. Cost-effectiveness analysis.
6. Cost-utility analysis.
7. Cost-benefit analysis.
8. Budget impact analysis.
9. Pharmacoeconomic modelling. "Therapeutic decision tree".
10. Pharmacoeconomic modelling. "Markov model".
11. Health technology assessment. Basic parts of an HTA dossier.
12. Pharmacoeconomics in pricing practice. Tracking the effect of therapy.
13. Pharmacoeconomics in reimbursement practice.
14. Pharmacoeconomics in pharmaceutical manufacturing.
15. Patient consent and cooperation and impact on drug therapy costs and outcomes.  
Pharmacoeconomics in hospital pharmacy.

Date .....

Program authors:

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