



# FACULTY OF PHARMACY MEDICAL UNIVERSITY SOFIA

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

DEAN:

/prof. Al.Zlatkov, DSc/

## DEPARTMENT “ORGANIZATION AND ECONOMICS OF PHARMACY”

### SYLLABUS

of

Elective subject “Digital technologies in the pharmaceutical practice”

INCLUDED IN “PHARMACY” EDUCATION CURRICULUM

DEGREE OF EDUCATION: “MASTER”

CREDITS (ECTS): 5

### ANNOTATION

Recently, the European Commission has issued several important documents to promote and strengthen the digitalisation of health systems, the exchange of data between countries and the creation of a Digital Single Market. In 2012, the Commission launched the Digital Agenda for Europe. In 2012, the Commission adopted a policy package containing a series of measures to improve access to scientific information in Europe, including recommendations on access to and preservation of scientific information resulting from public funding. In 2017, the digital transformation of healthcare was the subject of a broad public consultation. A number of discussions took place on the need to create policy measures to promote digital innovation for better healthcare in Europe. In modern society, healthcare is taking an increasingly central role, shifting towards a so-called 'patient-centred model' and now including, in addition to healthcare services, the many other innovative aspects. An example of this is the process of digitisation

of healthcare that has been launched worldwide. Digitalisation is the basis for making informed, evidence-based and informed decisions in the healthcare system - from the moment a new drug is created, through the refinement of the most appropriate treatment for a specific patient, the reimbursement of an innovative health technology to the prediction and modelling of outcomes based on the collected and structured health information.

The main objective of the course is to provide students with a structured, focused and in-depth introduction to the regulatory framework at regional and national level and the key elements of digital technology in the health sector. With the acquired knowledge, skills and competencies, students will be able to participate as full members of the multidisciplinary teams in different health sector structures (universities, regulatory institutions, industry), as well as seek employment in other structures in as experts in the field. The course also aims to provide additional knowledge and skills and build on those acquired by students in the special subjects, in particular: Information Technology, Biostatistics, Medical Devices, Social Pharmacy and Pharmaceutical Legislation and Pharmacoeconomics.

At the end of the course, students will be able to independently or in a team to critically analyse challenges in regulatory practice and assess ecosystems at a national level, plan and organise studies to assess the opportunities and benefits of implementing digital technologies in pharmacy practice, and critically evaluate data collected as a result of digitalisation in healthcare important for managerial decision making.

**Type of control and evaluation:** Students will be evaluated on the basis of a comprehensive examination, participation in the learning process over the two semesters and an individual assignment.

### **English language training**

#### **SYLLABUS**

1. Entrepreneurship and Innovation in Digital Health
2. Critical thinking
3. Legal regulation
4. Digital transformation in the development of new health technologies
5. Digital transformation in clinical trials
6. Digital technologies in regulatory market access
7. Digital transformation in securing physical and financial market access
8. Digital technologies in the medicines use assessment process
9. Digital technologies for assessing adherence to therapy
10. Artificial intelligence in pharmacy practice

- 11.Role of real-world therapeutic practice data
- 12.Digital technologies in the health technology assessment process
- 13.Digital transformation in screening and diagnosis of socially significant diseases
- 14.Digital pharmaceutical marketing
- 15.Ethical aspects of digital transformation of healthcare

Date .....

Program authors:

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