226 *PHARMACY, INDUSTRIAL PHARMACY*
educational-professional program of the third level of higher education
Knowledge 22 "Healthcare"
Qualification: Doctor of Philosophy

The program guarantor – **Heorhiiants Viktoriia Akopivna**
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Branch of Knowledge	22 Healthcare
Specialty	222 Pharmacy, industrial pharmacy
Program volume	43 ECTS credits
Program duration	4 years
Mode of study	full-time/evening-time/part-time

The educational-professional program "Pharmacy" is aimed at provision of the academic education in fundamental, chemical, technological, medical-pharmaceutical and socio-economic disciplines, and training of graduates for professional activities in the field of pharmacy, namely: research, teaching, informational and educational.

Details of the educational-professional program

The program is focused on provision of the research competencies in the field of pharmacy, including molecular modeling and targeted synthesis of biologically active substances; pharmacological research of medicinal plant raw material; pharmaceutical development of medicinal products; preclinical research of medicinal products; scientific substantiation and conduction of clinical research; standardization and quality control, and safety of medicines; management and quality assurance in the industry; chemical and toxicological analysis; scientific research on the development and standardization of veterinary drugs, perfumery and cosmetics and specialty foods; organization of system of provision of the population with medicinal products and activities of the pharmaceutical companies.

The high level of training is provided by a powerful scientific and academic school of pharmacy and long-term experience, developed international cooperation in the scientific and educational spheres, and availability of the specialized laboratories.

The high level of the practical part of the training is ensured by involvement of the leading specialists from the pharmaceutical enterprises of the healthcare industry in the educational-scientific process.

Specialists who are involved in the scientific training, underwent internship at the leading European universities, have international experience in educational and scientific activities.

Program components

№	*Name of the discipline*	
	Compulsory disciplines	
1	Philosophy of Science	
2	English Language for Scientific Communication	
3	Methodology and Methods of Scientific Analysis	
4	Modern IT Technologies in Scientific Activity	
5	Academic Integrity	
6	Pedagogy of Higher Education with Pedagogical Practice	
7	Current State of Scientific Knowledge in 'Pharmacy' specialty	
	Elective disciplines	
8	Rhetoric	
9	Professional Psychology	
10	Human Resources	
	Professionally oriented disciplines	
11	Molecular Design of Potential Active Pharmaceutical Ingredients	
12	Methods of Chemical and Toxicological Analysis	
13	Modern Approaches to Creation of Phytopreparations	
14	Marketing Tools for Pharmaceutical Market Analysis	
15	Assessment of Healthcare Technologies	
16	Chromatographic Methods of Analysis	
17	Modern Pharmaceutical Development	
18	Pharmacological and Technological Research of Medicinal Products	
19	Assessment and Risk Management in Research	
20	Scientific Approaches to Organization and Realization of Preclinical Research	
21	Scientific Principles of Clinical Study of Medicines	
22	Development and validation of methods of quality control	
TOTAL VOLUME OF THE EDUCATIONAL PROGRAM		**43**

Employment and competitive advantages of graduates

A specialist trained to work under the КВЕД ДК 009:2010:

Section M - Professional, scientific and technical activities

Section 72 Scientific research and developments

Group 72.1 Research and experimental developments in the field of natural and technical sciences

Class 72.11 Research and experimental developments in the field of biotechnology

Class 72.19 Research and experimental developments in the field of other natural and technical sciences

Section 74 Other professional, scientific and technical activities

Group 74.9 Other professional, scientific and technical activities

Class 74.90 Other professional, scientific and technical activities

Section P - Education

Section 85 - Education

Group 85.4 - Higher education

Class 85.41 - Professional-technical education at the level of the higher professional-technical education institution

Class 85.42 - Higher education

Upon completion of the educational-scientific program, a specialist is able to perform professional work:

- teacher of universities and higher education institutions (КП code – 2310);
- Associate Professor and Professor (КП code – 2310.1);
- another teacher of universities and higher education institutions (КП code – 2310.2);
- research scientist (pharmacy) (КП code – 2211.1);
- research scientist (pathology, toxicology, pharmacology, physiology, epidemiology) (КП code – 2212.1).

The Doctor of Philosophy can work at the enterprises of the chemical and pharmaceutical industry, in forensic chemical and toxicological laboratories, research institutes, clinical establishments of health care, higher education institutions and branch offices of different departments, performing professional functions in accordance with official duties.

Program learning outcomes

1. To possess conceptual and methodological knowledge in the field of pharmaceutical sciences and to be able to apply it in the professional activity in solving research and practical problems.
2. To be able to design and carry out integrated research, including interdisciplinary, on the basis of a holistic systemic scientific outlook using knowledge in the field of philosophy of scientific knowledge.
3. To plan and practically realize an original independent scientific research, which has scientific novelty, theoretical and practical value and promotes solution of significant social or scientific problems.
4. To use modern information sources of the national and international level to assess the state of knowledge of the research object and the relevance of the scientific problem.
5. To be able to formulate scientific hypotheses, purpose and tasks of the scientific research.
6. To be able to create a design and a plan for scientific research.
7. To be able to perform an original scientific research.
8. To be able to analyze, systematize and interpret the results of scientific research, using statistical methods of data processing.
9. To be able to explain the principles, specificity and sensitivity of the research methods, informativeness of the selected indicators.
10. To be able to integrate existing methods and methods of research and adapt them for solving scientific problems during dissertation researches.
11. To be able to interpret and analyze information using the latest information technologies.
12. To possess the skills of oral and written presentation of the results of scientific research in the form of reports, publications, presentations, poster reports, etc. in national and foreign languages.

13. To adhere to ethical standards, to take into account copyright and norms of academic integrity in conducting scientific researches, presentations of their results and in scientific and pedagogical activity.

14. To have communicative skills at the level of free communication in the professional environment and in the public sphere, including other languages, with regard to the problems of pharmaceutical industry.

15. To implement the results of scientific research into educational process, pharmaceutical practice and society.

16. To coordinate the work of a research group, be able to organize collective work (students, colleagues, interdisciplinary team).

17. To organize the educational process, evaluate its effectiveness, recommend ways to improve the educational process.