

MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY

APPROVED

**by Academic Council of
Odesa National Medical University
June 23, 2022
Record No. 9**

IMPLEMENTED

**By Order of the
Rector of Odesa National Medical
University
Valerii ZAPOROZHAN
No. 242-O
June 23, 2022**

CONCEPT OF EDUCATIONAL ACTIVITY

by specialty 226 "Pharmacy, Industrial Pharmacy"

specialization 226.01 "Pharmacy"

field of knowledge 22 "Health care"

at Odesa National Medical University

I. General Provisions

Code and name of the specialty: specialty 226 "Pharmacy, Industrial Pharmacy", specialization 226.01 "Pharmacy", field of knowledge 22 "Health care".

Level of education: second (master's) level of higher education.

Education degree: Master's degree.

An approximate list of professional qualifications planned to be provided:
educational qualification – Master of Pharmacy, professional qualification – Pharmacist, qualification in the diploma – Master of Pharmacy. Pharmacist.

Educational and professional program of the second level of higher education for the preparation of masters in specialty 226 "Pharmacy, Industrial Pharmacy" specialization 226.01 "Pharmacy".

The scope of the educational program: 300 ECTS credits

The purpose of the educational program: to provide academic education for graduates in fundamental and applied sciences and professional training by acquiring general and special competencies for carrying out professional activities in a relevant position, including providing pharmaceutical assistance, guaranteeing the safe and rational use of medicinal products, monitoring the effectiveness of pharmacotherapy and/or side effects actions, willingness to bear (or share) responsibility for the results of pharmacotherapy, manufacture of drugs, their storage, quality control, delivery, distribution, promotion, regulation, provision of drugs and other products of the pharmacy assortment taking into account modern international trends, provision of pharmaceutical care based on pharmaceutical ethics and deontology.

Requirements for the level of education of applicants: based on complete general secondary education; on the basis of bachelor's, junior bachelor's, and professional junior bachelor's degrees or the educational and qualification level of junior specialist (junior bachelor), a bachelor's degree in the corresponding specialty of pharmaceutical direction in full-time and part-time forms of education. Admission is based on the results of external independent assessment and entrance

exams at the institution of higher education in subjects (educational components) for which external independent assessment is not conducted.

Conditions for admission are determined by the Rules of Admission to Odesa National Medical University.

II. Purpose, Objectives and Principles of the Concept Implementation

The Concept of educational activity in specialty 226 "Pharmacy, Industrial Pharmacy", specialization 226.01 "Pharmacy", field of knowledge 22 "Health care" (hereinafter - the Concept) is based on the Concept of Educational Activity approved by the Academic Council of ONMedU on January 16, 2020, and the Concept of Strategic Development of ONMedU for the period of 2021-2025, approved by the Academic Council of ONMedU dated February 8, 2021, Rector's Order No. 52-O dated February 8, 2021.

The strategic *goal* of the Concept is to create organizational, legal and socio-economic conditions for improving the quality of higher education in the specialty 226 "Pharmacy, industrial pharmacy" specialization 226.01 "Pharmacy", by bringing its standards to international and national requirements of higher medical education and effective use of material-technical and personnel potential, financial and economic resources of the university.

The main objectives of implementing the Concept are:

- formation of a favorable educational environment;
- shifting the focus to the personality of the student-practitioner;
- training based on practical knowledge acquisition;
- restoring trust in the profession of pharmacist.

The peculiarities of educational activity in specialty 226 "Pharmacy, Industrial Pharmacy", specialization 226.01 "Pharmacy", field of knowledge 22 "Health care" at ONMedU are:

- 1) focus on the formation of a professionally oriented position and outlook;
- 2) implementation of international educational standards, algorithms and technologies in the educational process;

- 3) development of divergent thinking and skills of its practical application;
- 4) promotion of multifaceted personality development, in particular, the formation of the ability to study with a high level of independence, critical thinking, creative approach, initiative, the ability to solve problems, the ability to assess risks, determination and constructive emotional management, entrepreneurship;
- 5) transformation of the educational process based on its reorientation to the practical training of education seekers and a problem-oriented approach to learning;
- 6) continuous monitoring of the educational process and ensuring the internal system of higher education quality;
- 7) focus on establishing uniform requirements and rules for assessing the level of knowledge, impartiality and objectivity in assessing the acquired knowledge;
- 8) focus on the formation of specific skills and competencies in higher education seekers, in particular, complex solutions to clinical problems and problems related to the professional activity; critical thinking; practical and emotional intelligence; flexibility of cognition, patient-centered relationship model; interpersonal interaction along the lines of pharmacist - client, pharmacist - pharmacist, and pharmacist - doctor;
- 9) provide feedback from key stakeholders in the learning process.
- 10) involvement of stakeholders, in particular, representatives of employers, seekers of higher education and graduates in the formation of the content of educational programs.

The principles of implementation of the Concept are:

- the inseparability of the processes of learning, research and practical work;
- ensuring competitiveness owing to the guaranteed high quality of pharmaceutical education;
- designing an educational program based on competency;

- ensuring a unified approach to the development of an educational program with mandatory consideration of professional standards, the definition of criteria for evaluating knowledge, abilities, skills and competencies, terms and procedures for the confirmation of qualifications obtained by a higher education applicant;
- ensuring the independence and objectivity of the assessment of higher education seekers;
- scientifically based analysis of the needs of the labor market and prospects for the development of the pharmaceutical industry;
- promotion in the acquisition of professional qualifications by seekers of higher education in particular owing to the organization of the educational process;
- recognition of high-quality practical training of students of higher education as a requirement for obtaining the qualification of a pharmacist;
- compatibility of the educational program with international and national standards of higher education in specialty 226 "Pharmacy, Industrial Pharmacy";
- availability of all forms and types of educational services provided by the University for seekers of higher education;
- equality of conditions for each subject of education regarding the full realization of his abilities, talent and comprehensive development;
- humanism, democracy, priority of universal spiritual values;
- independence of educational activity from political parties, public and religious organizations;
- relationship with pharmaceutical educational and scientific institutions abroad;
- integration of education and science.

III. Realisation of the Educational Process within the Framework of the Concept

In order to achieve the goal and key objectives of the implementation of the Concept, it is necessary to design an integral system of obtaining higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" owing to the formation of a high-quality educational environment at the university.

The educational process is carried out through a competency-based approach, implementation of student-centered, problem-oriented learning, learning through pharmaceutical practice. The main forms of organization of the educational process are: lectures, seminars, practical classes in small groups, independent work, consultations with instructors, industrial practices.

The educational process is focused on individual work with students, which forms the conceptual basis for the formation of an educational environment in which the student has to study actively. An individual approach is provided due to a flexible system of educational components, a significant number of elective courses, as well as the formation of the HE seeker's individual educational trajectory.

Evaluation of the learning outcomes of education seekers takes place in the form of current assessment, final assessment and certification (defense of qualification project).

The main forms of current assessment are current surveys, testing control and skill assessment.

The main forms of final assessment are credit tests, graded tests and oral and written exams.

Certification (attestation) of master's degree seekers in the specialty 226 "Pharmacy, Industrial Pharmacy" is conducted in the form of the Unified State Qualification Examination (USQE stage 1, USQE stage 2) and defense of a qualifying master's thesis. Upon completion, the graduate is issued a standard-form document on higher education awarding him a master's degree with the qualification "Master of Pharmacy. Pharmacist."

As a result of mastering the components of the educational program, the graduate should have the following competencies:

- *Integral competency:* Ability to solve typical and complex specialized and practical problems in professional activities in the field of health care/pharmacy, or in the process of learning, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements;

- *General competences:* Ability to act in a socially responsible and civic-conscious manner; ability to apply knowledge in practical situations; the desire to preserve the environment; the ability to think abstractly, analyze and synthesize, learn and be up-to-date educated; the ability to show initiative and entrepreneurship; knowledge and understanding of the subject area and professional activity; ability to adapt and act in a new situation; ability to communicate in the national language both orally and in writing, ability to communicate in a foreign language (mainly English) at a level that ensures effective professional activity; skills in using information and communication technologies; ability to choose a communication strategy, the ability to work in a team and with experts from other fields of knowledge/types of economic activity; the ability to evaluate and ensure the quality of works performed; ability to conduct research at the appropriate level; ability to realize one's rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine; ability to preserve and multiply moral, cultural and scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and following a healthy lifestyle.

- *Special competencies:* ability to carry out sanitary and educational work among the population for the purpose of prevention of common diseases,

dangerous infectious, viral and parasitic diseases, as well as promoting timely detection and support of adherence to the treatment of these diseases according to their medico-biological characteristics and microbiological features; ability to consult on prescription and non-prescription drugs and other products of the pharmacy assortment; pharmaceutical care during the selection and sale of an over-the-counter medicinal product by assessing the risk/benefit ratio, compatibility, indications and contraindications guided by data on the health status of a specific patient, taking into account the biopharmaceutical, pharmacokinetic, pharmacodynamic and physicochemical features of the medicinal product and other products pharmacy assortment; ability to provide pre-medical assistance to the sick and injured in extreme situations and emergencies; ability to ensure the rational use of prescription and non-prescription drugs and other products of the pharmacy assortment according to the physicochemical, pharmacological characteristics, biochemical, pathophysiological features of a particular disease and pharmacotherapeutic schemes of its treatment; ability to monitor the effectiveness and safety of the use of medicinal products by the population according to data on their clinical and pharmaceutical characteristics, as well as taking into account subjective signs and objective clinical, laboratory and instrumental criteria for the examination of the patient; the ability to identify medicinal products, xenobiotics, toxins and their metabolites in biological fluids and body tissues, to conduct chemical-toxicological studies to diagnose acute poisoning, drug and alcohol intoxication; ability to ensure proper storage of medicines and other products of the pharmacy assortment in accordance with their physicochemical properties and the rules of Good Storage Practice (GSP) in health care institutions; ability to organize the activities of the pharmacy to supply the population and health care facilities with medicines and other products of the pharmacy assortment and to implement appropriate reporting and accounting systems (management, statistical, accounting and financial) in accordance with the requirements of the National Drug Policy, Good Pharmacy Practice (GPP) and carry out commodity analysis and administrative records taking into account the organizational and legal norms of

pharmaceutical legislation; ability to analyze and forecast the main economic indicators of the activity of pharmacies, to calculate the main taxes and fees, to form prices for medicines and medical products in accordance with the current legislation of Ukraine; the ability to develop, implement and apply management approaches in the professional activity of pharmacies, wholesale brokers, manufacturing enterprises and other pharmaceutical organizations, argue the principles of HR-management and self-management, demonstrate leadership skills; ability to conduct analysis of socio-economic processes in pharmacy, forms, methods and functions of the system of pharmaceutical provision of the population and its components in global practice, indicators of the need, effectiveness and availability of pharmaceutical assistance in terms of medical insurance and reimbursement of the cost of medicines; ability to use knowledge of regulatory and legislative acts of Ukraine and recommendations of proper pharmaceutical practices in professional activities; ability to demonstrate and apply in practical activities communicative communication skills, fundamental principles of pharmaceutical ethics and deontology, based on moral obligations and values, ethical standards of professional behavior and responsibility in accordance with the Code of Ethics of pharmaceutical workers of Ukraine and WHO guidelines; ability to organize and carry out the production activities of pharmacies for the manufacture of medicinal products in various dosage forms according to the doctor's prescriptions and orders of medical institutions, including the justification of technology and the selection of auxiliary materials in accordance with the rules of Good Pharmacy Practice (GPP); the ability to organize and participate in the production of medicinal products in the conditions of pharmaceutical enterprises, including the selection and justification of the technological process, equipment in accordance with the requirements of Good Manufacturing Practice (GMP) with the appropriate development and execution of the necessary documentation, determine the stability of medicines; ability to organize and carry out the procurement of medicinal plant raw materials following the rules of the Good Agricultural and Collection Practice (GACP), as a guarantee of the quality of medicinal plant raw

materials and medicinal products based on them; ability to predict and substantiate ways of solving the problem of preservation and protection of wild medicinal plants in accordance with current legislation; ability to organize and carry out general and marketing management of assortment, product and innovation, price, sales and communication policies of pharmaceutical market subjects based on the results of marketing research and taking into account market processes on national and international markets, manage risks in the pharmaceutical supply system; the ability to develop and implement the quality management system of pharmaceutical enterprises in accordance with the requirements of current Standards, to carry out quality audits and risk management for the quality of pharmaceutical products; ability to organize and carry out quality control of medicinal products in accordance with the requirements of the current State Pharmacopoeia of Ukraine and good practices in pharmacy, to determine sampling methods for the medicinal products control and to carry out their standardization in accordance with current requirements, to prevent the distribution of falsified medicinal products; ability to develop methods of quality control of medicinal products, including active pharmaceutical ingredients, medicinal plant raw materials and auxiliary substances using physical, chemical, physico-chemical, biological, microbiological, pharmaco-technological and pharmaco-organoleptic control methods.

Guarantor of the Educational and Professional Program,
Head of the Department of Organization and Economics
of Pharmacy,
Doctor of Pharmaceutical Sciences, Professor Liana
UNHURIAN

A handwritten signature in blue ink, appearing to read 'Liana Unhurian', is positioned to the right of the text block.