

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE



INTERNATIONAL HUMANITARIAN
UNIVERSITY

"APPROVED"

Academic Council

International Humanitarian
University

Protocol No. 4

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Put into effect by the order of the
Rector of the International Humanitarian
University dated 04.04.2023 No. 1233a

Rector K.V. Hromovenko



EDUCATIONAL AND PROFESSIONAL PROGRAM

PHARMACY, INDUSTRIAL PHARMACY
(for foreign citizens)

LEVEL OF HIGHER EDUCATION first (bachelor's)
(name of higher education level)

BACHELOR'S DEGREE
(title of higher education degree)

FIELD OF KNOWLEDGE 22 Healthcare
(code and name of the field of knowledge)


SPECIALTY 226 Pharmacy, Industrial Pharmacy
(code and name of specialty)

Odesa 2023

LETTER OF APPROVAL

Educational and Professional Program "Pharmacy, Industrial Pharmacy"
(for foreign citizens)
specialty 226 "Pharmacy, Industrial Pharmacy"
at the first (bachelor's) level of higher education

First Vice-Rector




Vasyl LEFTEROV

**Dean of the Faculty of Dentistry
and Pharmacy**



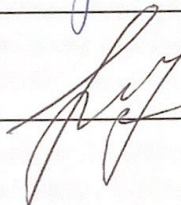
Elena ZAHRAĐSKA

**Head of the Department of
General and Clinical
Pharmacology**



Iryna BORYSIUK

Guarantor of the program



Valeriy BACHERIKOV

PREFACE

The educational and professional program "Pharmacy, Industrial Pharmacy" is a regulatory document that regulates the regulatory, competent, qualification, organizational, educational and methodological requirements in the training of applicants for the first (bachelor's) level of higher education in the field of knowledge 22 "Health care" in the specialty - 226 "Pharmacy, industrial pharmacy".

Developed by a project team consisting of:

1. **Valerii Bacherikov**, Candidate of Chemical Sciences, Head of the Department of Medicinal Chemistry and Biology of the International Humanitarian University, *head of the project group (guarantor of the educational program)*.
2. **Borysiuk Iryna Yuriivna**, Doctor of Pharmaceutical Sciences, Professor, Head of the Department of General and Clinical Pharmacology, *member of the project group from the teachers of the support group*.
3. **Antipov Mykola Hryhorovych**, Candidate of Medical Sciences, Associate Professor of the Department of General and Clinical Pharmacology of the International Humanitarian University, *member of the project group from the teachers of the support group*.
4. **Anna Bashly**, General Director of AKS PJSC, *member of the project group, external stakeholder (employer)*.
5. **Smirnova Anna Vasylivna**, - Senior Lecturer at the Department of General and Clinical Pharmacology of the International Humanitarian University, *member of the project group from among the teachers of the support group*.
6. **Silvestrova Anna Sergeevna** - Doctor of Philosophy, Lecturer at the Department of General and Clinical Pharmacology of the International Humanitarian University, *member of the project group from the teachers of the support group*.
7. **Chagli Osman** is a 4th year student, a foreign applicant for the first (bachelor's) level of higher education in the field of knowledge 22 "Health care" in the specialty - 226 "Pharmacy, industrial pharmacy".

Reviews and feedback from external stakeholders:

1. **Alexey Alyoshin** is the founder of AKS-ODESSA LLC.
2. **Hordiychuk Gennadiy Mykolayovych** – Candidate of Chemical Sciences, Associate Professor of the Department of Technology of Inorganic Substances and Ecology, National Polytechnic University.
3. **Derkach Larysa Hryhorivna** – Candidate of Chemical Sciences, Senior Researcher of the Institute of Physics and Chemistry. O. V. Bogatsky of the National Academy of Sciences of Ukraine.
4. **Zinchenko Liudmyla Mykhailivna** – Head of the Homeopathic Pharmacy, Odesa.
5. **Valeria Lyashenko-Shcherbakova** – Head of the State Service on Medicines and Drugs Control in Odesa Oblast.

The educational and professional program "Pharmacy, Industrial Pharmacy" is developed in accordance with:

- Law of Ukraine "On Higher Education" dated July 1, 2014 No 1556-VII (as amended on May 12, 2022);

- Law of Ukraine "On Education" dated September 5, 2017 No 2145VIII (as amended on April 06, 2022);

- Resolution of the Cabinet of Ministers of Ukraine dated December 30, 2015 No 1187 "On Approval of the Licensing Conditions for the Implementation of Educational Activities" (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated March 24, 2021 No 365);

- Resolution of the Cabinet of Ministers of Ukraine dated November 23, 2011 No 1341 "On Approval of the National Qualifications Framework" (as amended by the Resolution of the Cabinet of Ministers of Ukraine dated June 25, 2020 No 519);

- Resolution of the Cabinet of Ministers of Ukraine dated April 29, 2015 No. 266 "On the peculiarities of the introduction of the list of fields of knowledge and specialties in which higher education applicants are trained" (as amended in accordance with the order of the Ministry of Education and Science of Ukraine dated April 12, 2016 No. 419);

- Letter of the Ministry of Education and Science of Ukraine dated 28.04.2017 No1/9-239;

- Decree of the Ministry of Health No. 360 of 19.07.2005 "On the Procedure for Issuing Prescriptions and Dispensing of Medicines and Medical Products from Pharmacies";

- Annex No. 1917 to the Order of the Ministry of Health No. 360 dated 19.09.2021 on the issuance of electronic prescriptions by medical workers;

- The standard of higher education of Ukraine of the first (bachelor's) level of higher education in the field of knowledge 22 "Health care" in the specialty - 226 "Pharmacy, industrial pharmacy", approved and put into effect by the order of the Ministry of Education and Science of Ukraine dated 24.04.2019 No 564.

1. Profile of the educational program "Pharmacy, Industrial Pharmacy" specialty 226 "Pharmacy, Industrial Pharmacy"

1.1. General characteristics of the program	
Full name of the higher educational institution and structural unit	International Humanities University, Faculty of Dentistry and Pharmacy, Department of General and Clinical Pharmacology.
Level of higher education	The level of higher education is the first (bachelor's).
Higher education degree	Bachelor
Educational qualifications	Bachelor of Pharmacy, Pharmacist
Qualification in Diploma	Higher Education Degree – Bachelor Specialty – 226 "Pharmacy, Industrial Pharmacy" Educational program – "Pharmacy, Industrial Pharmacy" Educational qualification – Bachelor of Pharmacy, Industrial Pharmacy Diploma Qualification – Bachelor of Pharmacy, Pharmacist
Field of knowledge	22 "Public Health"
Speciality	226 "Pharmacy, Industrial Pharmacy"
Official name of the program	Pharmacy, Industrial Pharmacy
Type of diploma and scope of educational program	Bachelor's degree, single, 240 ECTS credits, term of study 4 years.
Form of study	Day
Availability of accreditation	Accreditation of specialty 226 "Pharmacy. Industrial Pharmacy" in the field of knowledge 22 "Health Care" in 2015, in accordance with the decision of the Accreditation Commission dated 28.05.2015; Protocol No. 116 (Order of the Ministry of Education and Science of Ukraine dated 10.06.2015 No. 1415-1).
Cycle/Level	NQF of Ukraine – Level 6
Prerequisites	Competitive selection is carried out based on the results of entrance examinations: for admission to the first year – on the basis of complete general secondary education; admission to the second - third year - on the basis of the educational qualification level of a junior specialist and/or a previously obtained degree of higher education.

Restrictions on forms of education	There are no restrictions
Language(s) of instruction	Ukrainian, English.
Validity of educational Program	Full-time 4 years old; Part-time 5 years.
Internet address of the permanent location of the description	https://mgu.edu.ua/
1.2. The purpose of the educational and professional program	
The purpose of the educational program	Formation of the ability to apply the acquired knowledge, skills and abilities in the disciplines of general and professional training to solve typical tasks of a specialist in the relevant position, including the manufacture of medicines, their storage, quality control, delivery, distribution, dispensing, regulation of the provision of medicines, as well as consulting, providing information on medicines and monitoring side effects and/or ineffectiveness of drug therapy.
1.3. Characteristics of the educational program	
Subject area (field of knowledge, specialty, specialization)	<p>Object of study: organization of pharmaceutical activities, modern scientific achievements in the field of pharmacy and the principles of evidence-based medicine, knowledge and practical skills in obtaining substances of medicinal substances, their purification, methods of manufacturing medicines and their control, the use of medicines in medical practice, as well as primary organizational (managerial) experience.</p> <p>Learning objectives: Formation of the ability to apply the acquired knowledge, skills, abilities and understanding in the humanities, fundamental and professionally oriented disciplines to solve typical problems in the relevant position in pharmaceutical activities, which includes the circulation of medicines and pharmacy products, their storage, quality control, ensuring the safe and rational use of medicines, providing pharmaceutical care on the basis of pharmaceutical ethics and Ethics.</p> <p>Theoretical content of the subject area: educational normative and elective disciplines of the cycles of general and professional training includes theoretical training in biology, chemistry, pharmacology, pharmacy, etc.</p>

	<p>Methods, techniques and technologies: methods of theoretical and empirical research, valid, according to the State Pharmacopoeia of Ukraine, standardized pharmaceutical methods, methods of data analysis, technologies of extraction, analysis, storage, use of medicines.</p> <p>Tools and equipment: laboratory devices used in pharmacy, computer equipment, network information retrieval and processing systems; library resources and technologies, including electronic; multimedia equipment; programs for statistical processing and data visualization.</p>
Orientation of the educational program	Educational and professional provides practice-oriented training of a pharmacist, industrial pharmacist.
Main focus of the program and specialization	<p>Pharmaceutical principles, mechanisms, methods, technologies of therapeutic and pharmacological interaction, pharmacy care, theoretical, methodological and empirical research in the field of pharmacy and pharmacology.</p> <p>Focus on the formation of the ability to carry out research, teaching and practical activities; focusing on the provision of medical and pharmacological care, consulting support for various groups of the population, individual and group in pharmacy and pharmaceutical centers, treatment centers.</p> <p>Keywords: bachelor, pharmacy, health care, pharmacist, industrial pharmacist, pharmacologist.</p>
Features of the program	<p>The program is focused on practical training and development of professional competencies of a pharmacist, industrial pharmacist for the implementation of informational, practical and auxiliary research activities in the field of pharmacy, industrial pharmacy. A special feature is theoretical and practical training with a deep knowledge of the biomedical characteristics of drugs and their effective use. The program also provides, within the framework of general pharmaceutical education, a focus on the training of pharmacist's bachelor's degree who will work in pharmacies and numerous pharmacy branches located in rural areas of southern Ukraine, and possibly in other rural communities. In rural areas, the role of a highly knowledgeable pharmacist, even at the undergraduate level, is very important and requires a sufficient level of theoretical knowledge regarding classification, pharmacology, proper handling and use of medicines, correct patient information, as well as basic knowledge of marketing and information technology in pharmacy.</p>
1.4. Suitability of graduates for employment and further education	

Employability	<p>The Bachelor of Pharmacy will be prepared to work in pharmacies, branches of pharmacies, pharmacy branches, pharmaceutical firms, wholesale pharmacy warehouses, laboratories for quality control of medicines, pharmaceutical enterprises, institutions for the sale of medical equipment, research, medical, pharmaceutical and other institutions where there are laboratories of the relevant profile, pharmaceutical reference centers. According to the National Classifier of Ukraine, ("Classifier of Professions"), bachelors of pharmacy are suitable for employment in the following professions:</p> <p>3228 - Laboratory Assistant (Pharmacy); 3228 - Pharmacist-intern; 3228 – Pharmacist.</p> <p>In accordance with paragraphs 165 and 184 of the Resolution of the Cabinet of Ministers of Ukraine No. 929 dated 30.11.2016, bachelors of pharmacy can perform the duties of an authorized person and hold the following positions:</p> <ul style="list-style-type: none"> - head of the pharmacy; Deputy Head of Pharmacies in pharmacies located in villages, towns and urban-type settlements.
Further Education (Academic Rights of Graduates)	<p>Subject to successful completion of training, there is an opportunity to study in educational programs of the second (master's) level and the possibility of acquiring additional qualifications in the system of postgraduate education and compatible professions.</p>
1.5. Teaching and Assessment	
Teaching & Learning	<p>The educational process is carried out on the basis of competence, systemic, integrative approaches with the use of innovative and interactive technologies, elements of distance learning (in the Moodle system), implementation of projects, research tasks during production (consulting) and scientific-pedagogical practices, which determines the humanistic and creative style of subject-subject interaction, student-centered and practice-oriented learning. Teaching and learning are carried out in accordance with "Regulations on the Internal Quality Assurance System of Education" at the International Humanitarian University https://docs.mgu.edu.ua/docs/NormAkti/poloj_sistem.pdf .</p> <p>Student-centered problem-based professionally oriented learning with the implementation of the applicant's individual educational trajectory; combination of research, educational and practical components; Classes are held in the form of lectures, lectures-discussions, binary, interactive lectures, seminars, practical classes with the solution of</p>

	applied problems, training inclusions, using case methods and self-study.
Evaluation	<p>Assessment of educational achievements of higher education applicants for all types of classroom and independent educational activities is carried out according to the national scale (excellent, good, satisfactory, unsatisfactory; passed, not passed), 100-point scale and the ECTS scale (A, B, C, D, E, FX, F).</p> <p>Current, thematic, final control, written and oral exams, testing, various types of internships, certification exam, qualification (bachelor's) exam are provided. The order and procedure of evaluation are carried out in accordance with: "Regulations on the system of assessment of educational achievements of higher education applicants" https://docs.mgu.edu.ua/docs/NormAkti/poloj_poradok_ocinuvan_result.pdf</p> <p>Current control for full-time and part-time forms of study: answers (speeches) at practical, seminar classes, report of laboratory work protocols; for blended and distance learning, answers during distance learning orally and in writing on forums, chats, Moodle, Zoom, Google Meet, Google classroom, Microsoft teams, etc.</p> <p>Semester final control: examination (written, oral, written-oral); credit (differentiated credit); a form that provides for the assessment of the effectiveness of training based on the results of current control.</p> <p>for mixed and distance learning, the form of final control online using software for video conferencing and computer testing and platforms Moodle, Zoom, Google Meet, Google class, Microsoft teams, etc.</p> <p>Evaluation of the coursework (project) and practice report: defense of the term paper; Protection of the practice report.</p> <p>Certification of higher education applicants: EDCE "Krok 1" for specialization "Pharmacy" and Exam in English for Professional Purposes (https://www.testcentr.org.ua/uk/ispyty/-spetsialnosti/farmatsiia); Comprehensive professional exam (five disciplines).</p>
1.6. Program competencies	
Integral Competence (IC)	Ability to solve complex tasks and problems in the process of education and professional activity in the field of pharmacy, pharmacology, pharmacy and industrial drug technology, which involves the application of theories and

	<p>methods of pharmaceutical science, research and innovation and is characterized by uncertainty of conditions and requirements.</p>
<p>General Competencies (GC)</p>	<p>GC1. Ability to abstract thinking, analysis, and synthesis.</p> <p>GC2. Knowledge and understanding of the subject area; Understanding of professional activities.</p> <p>GC3. Ability to communicate in the state language both orally and in writing.</p> <p>GC4. Ability to communicate in a foreign language.</p> <p>GC5. Ability to evaluate and ensure the quality of work performed.</p> <p>GC6. Ability to work in a team.</p> <p>GC7. Ability to exercise their rights and responsibilities as a member of society; awareness of the value of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.</p> <p>GC8. Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of pharmacy, its place in the general system of knowledge about nature and society and in the development of society, equipment and technology, to use various types and forms of physical activity for active recreation and a healthy lifestyle.</p> <p>GC9. Ability to use information and communication technologies.</p>
<p>Special (professional, subject) competencies (SC)</p>	<p>FC1. Ability to integrate knowledge and solve complex pharmacy/industrial pharmacy problems in broad or multidisciplinary contexts.</p> <p>FC2. Ability to collect, interpret and apply data necessary for professional activities, research and implementation of innovative projects in the field of pharmacy.</p> <p>FC3. Ability to solve pharmacy problems in new or unfamiliar environments with incomplete or limited information, taking into account aspects of social and ethical responsibility.</p> <p>FC4. Ability to clearly and unambiguously convey own knowledge, conclusions and arguments in the field of pharmacy to specialists and non-specialists, in particular to students.</p>

FC5. Ability to carry out sanitary and educational work among the population in order to prevent and prevent widespread, dangerous infectious, viral and parasitic diseases, to promote timely detection and maintenance of adherence to treatment of these diseases in accordance with their medical and biological characteristics and microbiological characteristics.

FC6. Ability to provide advice on prescription and over-the-counter medicines and other pharmacy products, pharmaceutical care during the selection and sale of medicines of natural and synthetic origin by assessing the risk/benefit ratio, compatibility, taking into account their biopharmaceutical, pharmacokinetic, pharmacodynamic and physicochemical and chemical features, indications/contraindications for use, guided by data on the health status of a particular Patient.

FC7. Ability to provide first aid to patients and victims in extreme situations and emergencies.

FC8. Ability to monitor the efficacy and safety of the use of medicines by the population according to the data on their clinical and pharmaceutical characteristics.

FC9. Ability to determine drugs, xenobiotics, toxins and their metabolites in biological fluids and tissues of the body, to conduct chemical and toxicological studies in order to diagnose acute poisoning, drug and alcohol intoxication.

FC10. Ability to ensure proper storage of medicines of natural and synthetic origin and other pharmacy products in accordance with their physicochemical properties and the rules of Good Storage Practice (GSP) in healthcare facilities.

FC11. Ability to organize the activities of pharmacies to provide the population, health care institutions with medicines and other pharmacy products and implement appropriate reporting and accounting systems in them, carry out commodity analysis, administrative record keeping, taking into account the requirements of pharmaceutical legislation.

FC12. Ability to analyze and forecast the main economic indicators of pharmacies, calculate basic taxes and fees, form prices for medicines and other pharmacy products in accordance with the legislation of Ukraine.

	<p>FC13. Ability to analyze socio-economic processes in pharmacy, forms, methods and functions of the system of pharmaceutical provision of the population and its components in world practice, indicators of need, efficiency and accessibility of pharmaceutical care in the context of health insurance and reimbursement of the cost of medicines.</p>
<p>1.7. Program Learning Outcomes</p>	
<p>Programmatic Learning Outcomes (PRN)</p>	<p>PRN1. Have and apply specialized conceptual knowledge in the field of pharmacy and related fields, taking into account modern scientific achievements.</p> <p>PRN2. Critically comprehend scientific and applied problems in the field of pharmacy.</p> <p>PRN3. Have specialized knowledge and skills/abilities to solve professional problems and tasks, including for the further development of knowledge and procedures in the field of pharmacy.</p> <p>PRN4. Communicate fluently in the state and English languages orally and in writing to discuss professional problems and results of activities, present research and innovative projects.</p> <p>PRN5. Evaluate and ensure the quality and efficiency of activities in the field of pharmacy.</p> <p>PRN6. Develop and make effective decisions to solve complex/complex problems of pharmacy personally and based on the results of joint discussion; formulate the goals of their own activities and the activities of the team, taking into account public and industrial interests, the general strategy and existing constraints, determine the best ways to achieve goals.</p> <p>PRN7. Collect the necessary information on the development and production of medicines using professional literature, patents, databases and other sources; systematize, analyze and evaluate it, in particular, using statistical analysis.</p> <p>PRN8. Develop and implement innovative projects in the field of pharmacy, as well as related interdisciplinary projects, taking into account technical, social, economic, ethical, legal and environmental aspects.</p> <p>PRN9. Formulate, argue, clearly and specifically convey to specialists and non-specialists, including higher education applicants, information based on their own knowledge and professional experience, the main trends in the development of world pharmacy and related industries.</p> <p>PRN10. Carry out sanitary and educational work among the</p>

	<p>population in order to prevent and in the event of outbreaks of dangerous infectious, viral and parasitic diseases.</p> <p>PRN11. Determine the advantages and disadvantages of medicinal products of natural and synthetic origin of different pharmacological groups, taking into account their chemical, physicochemical, biopharmaceutical, pharmacokinetic and pharmacodynamic features and type of dosage form. Recommend to consumers medicines and other pharmacy products with the provision of advisory assistance and pharmaceutical care.</p> <p>PRN12. Provide first aid to patients in emergencies and victims in extreme situations.</p> <p>PRN13. Record cases of side effects when using medicines of natural and synthetic origin; assess the factors that may affect the processes of absorption, distribution, deposit, metabolism and excretion of medicinal products and are determined by the state and characteristics of the human body and the pharmaceutical characteristics of medicinal products.</p>
1.8. Resourcing of the program implementation	
Staffing	<p>Compliance with licensing requirements: the presence of the Faculty of Dentistry and Pharmacy, the Department of General and Clinical Pharmacology, responsible for the training of higher education applicants at the International Humanitarian University; a working group (project group) of scientific and pedagogical workers, which is responsible for the training of higher education applicants in a certain specialty, consisting of at least three people with a scientific degree and/or academic title;</p> <p>the head of the project group (guarantor of the educational program) has a scientific degree, as well as at least 5 years of experience in scientific, pedagogical and/or scientific work;</p> <p>availability of a group for the provision of educational activities, the number of members of which consists of scientific, pedagogical or scientific workers who work in the educational institution at the main place of work and have qualifications in accordance with the specialty and who are (were) not included in any support group of such or another higher education institution in the current semester;</p> <p>the share of those who have a scientific degree and/or academic title is at least 50%;</p> <p>The share of those who have a scientific degree of Doctor of Sciences and/or the academic title of Professor is at least 10%.</p> <p>Scientific-pedagogical and scientific workers who carry out the educational process have more than two years of</p>

	<p>experience in scientific and pedagogical activities and a level of scientific and professional activity, which is certified by the implementation of at least four types and results (subparagraphs 1-18 of paragraph 30 of the Licensing Conditions). Availability of employment agreements (contracts) with all scientific and pedagogical workers and orders for their employment.</p>
Material and technical support	<p>The educational process takes place in bright rooms equipped with the latest technologies, built according to European standards, equipped with projectors, modern monitors and electronic boards, etc.</p> <p>Provision of multimedia equipment for simultaneous use in classrooms of at least 30% of classrooms.</p> <p>Provision of computer workstations, laboratories, specialized equipment, equipment, including the premises of the "Educational Pharmacy" necessary for the implementation of the educational and professional program "Pharmacy. Industrial Pharmacy".</p> <p>Specialized classrooms are properly equipped at the University, in particular, the following facilities have been created and staffed at the Faculty: a complex of a training pharmacy (a cabinet of organization and economics of pharmacy; a room of the basics of medical and pharmaceutical commodity science; a room of drug technology); Cabinet of Fundamentals of Management and Marketing in Pharmacy; Chemistry Laboratories (Analytical and Physicochemical Zones); pharmacology and clinical pharmacy room; cabinet of pharmacognosy and botany; cabinet of pharmaceutical and medical law and others.</p> <p>Social infrastructure:</p> <ul style="list-style-type: none"> - library, including reading room; - food outlets; - assembly hall; - gym; - stadium and sports grounds; - first-aid post; - Shelter. <p>The provision of higher education students with a dormitory (minimum percentage of need) is 70%. Provision of computer workstations, laboratories, equipment, equipment necessary for the implementation of curricula.</p>
Informational, educational and	<p>Normative support is carried out by the Law of Ukraine "On Higher Education", standards of higher education (state, sectoral and university), other normative acts of the Ministry of Education and Science of Ukraine and higher school.</p>

methodological support	<p>Educational activities are carried out according to the curriculum and an explanatory note to it. Each academic discipline of the curriculum is provided with a work program, a complex of educational and methodological support, and work programs. To conduct practical training of students, practical training programs have been developed. The provision of students with educational materials for each discipline of the curriculum is 100%. To conduct the final certification of higher education applicants, there are methodological materials for the final certification. Information support is provided by educational books (textbooks, manuals, etc.) and electronic resources. The availability of domestic and foreign professional periodicals of the corresponding or related profile in the library of an educational institution, including in electronic form, is at least 4 titles. Access to databases of periodical scientific publications in English of the relevant or related profile is provided. Availability of the official website of the educational institution, which contains basic information about its activities.</p> <p>Availability of a page on the official website of the educational institution in English, which contains basic information about the activities, rules for the admission of foreigners and stateless persons, conditions of study and residence of foreigners and stateless persons, contact information.</p>
1.9. Academic mobility	
National Credit Mobility	<p>Based on bilateral agreements between the International Humanitarian University and the HEI of Ukraine. Opportunity for participants in the educational process to study, teach, intern or conduct research activities in another higher education institution (research institution) on the territory of Ukraine, to participate in various educational or research programs.</p>
International Credit Mobility	<p>Within the framework of the EU Erasmus+ program on the basis of bilateral agreements between the International Humanitarian University and educational institutions of partner countries.</p> <p>Since February 2021, a cooperation agreement has been in effect between MSU and Polonia University (Poland), which, among other things, provides for the implementation of dual educational programs, exchange and internships for applicants and academic staff, cooperation within EU programs, as well as joint research and training initiatives.</p>

	<p>In 2020, MSU signed a cooperation agreement with the University of Belgrade (Serbia), according to which students of the OPP "Pharmacy. Industrial Pharmacy" have the opportunity of mobility and acquisition of the necessary competencies in Serbia with the possibility of obtaining a scholarship with the enrollment of appropriate credits.</p> <p>In 2019, MSU entered into cooperation agreements with Xinyu University (China) and Gannan Medical University (China), which provides for academic cooperation and exchange of teachers and students, including OPP Pharmacy. Industrial pharmacy.</p>
Training of foreign applicants for higher education	<p>It is possible, provided that the knowledge of the Ukrainian language is at a level sufficient for studying.</p>

2. Forms of certification of applicants for the first (bachelor's) level of higher education

Forms of certification of higher education applicants	<p>Attestation in the educational and professional training program in the specialty "Pharmacy, Industrial Pharmacy" is carried out in the form of EDKI "Krok 1" for the specialization "Pharmacy" and the Exam in English for professional purposes (https://www.testcentr.org.ua/uk/ispyty/-spetsialnosti/farmatsiia); Comprehensive professional exam (five disciplines); final exam in the discipline "Ukrainian as a foreign language".</p>
Requirements for the Unified State Qualification Exam	<p>The Unified State Qualification Exam is carried out in accordance with the Procedure for the Implementation of the Unified State Qualification Exam for applicants in the specialty "Pharmacy, Industrial Pharmacy" in the field of knowledge "Health Care" and consists of the following components: integrated test exam "Krok 1", the purpose of which is to assess the level of professional competence in general scientific (fundamental) disciplines and is conducted by the Testing Center at the Ministry of Health of Ukraine;</p> <p>An exam in English for professional purposes, which assesses the level of professional competence in English for professional purposes. and is conducted by the Testing Center at the Ministry of Health of Ukraine; (https://www.testcentr.org.ua/uk/ispyty/spetsialnosti/farmatsiia)</p>

	<p>An objective practical-oriented exam that assesses the graduate's readiness to carry out professional activities in accordance with the requirements of the higher education standard by demonstrating practical components of professional competence and is conducted by the examination board of the higher education institution.</p>
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3. Requirements for the availability of a system of internal quality assurance of higher education

<p>Principles and Procedures for Quality Assurance in Education</p>	<p>The principles of quality assurance of education are implemented in accordance with the requirements of the current legislation and internal acts of the International Humanitarian University. The principles and procedures for quality assurance of higher education are defined in the Regulations on the Quality Assurance System of Education (Internal Quality Assurance System), the Regulations on the Organization of the Educational Process, in the Regulations of the structural subdivisions of the University (Dean's Office, Department, Educational and Methodological Department) and the relevant advisory bodies: the Academic Council of the University, the Scientific and Methodological Council of the University and the Faculty of Linguistics and Translation. The outlined system of internal quality assurance of higher education provides for the following procedures and measures: monitoring and periodic review of the content of the OPP "Pharmacy. Industrial Pharmacy" of the first (bachelor's) level of higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" in the field of knowledge 22 "Health Care"; annual evaluation of higher education applicants (surveys, questionnaires, analysis of the results of the examination session); annual evaluation of scientific and pedagogical staff (surveys, questionnaires, reporting on the results of educational, scientific, organizational activities); advanced training of scientific and pedagogical staff who provide the educational process for the OPP "Pharmacy. Industrial Pharmacy" of the first (bachelor's) level of higher education in the specialty 226 "Pharmacy, industrial pharmacy" in the field of knowledge 22 "Health care"; educational and methodological support of the educational process; material, technical, information support of the educational process; placement of information about the OPP "Pharmacy. Industrial Pharmacy" of the first (bachelor's) level of higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" in the field of knowledge 22 "Health Care", work programs of academic disciplines for public viewing on the</p>
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	website of the Faculty and the website of the University; Feedback from stakeholders.
Monitoring and periodic review of the educational program	The revision and updating of the educational program is carried out in accordance with the requirements of the current legislation and internal acts of the International Humanitarian University.
Publicity of information about educational programs, degrees of higher education and qualifications	Placement on the official website of the university in the public domain: https://mgu.edu.ua/
Preventing and Detecting Academic Plagiarism	The basic principles of observance of academic integrity are defined in the Regulations on Academic Integrity at the International Humanitarian University https://docs.mgu.edu.ua/docs/NormAkti/poloj_akad_dobroch.pdf and the Code of Academic Integrity of the International Humanitarian University https://docs.mgu.edu.ua/docs/NormAkti/kodex_akad_dobr.pdf
Requirements of professional standards (if any)	
The full name of the Professional Standard	Standard of higher education of the second (master's) level (hereinafter referred to as the Standard), field of knowledge 22 Health care specialty 226 Pharmacy, industrial pharmacy specialization 226.01 Pharmacy; 226.02 Industrial pharmacy. Approved and put into effect by the order of the Ministry of Education and Science of Ukraine dated November 4, 2022 No. 981.

2. List of components of the educational and professional program and their logical sequence

2.1. List of EP components

<i>N/A Code</i>	Components of the educational program (academic disciplines, practices)	<i>Number of credits ECTS</i>	<i>Form of final control</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>

1. MANDATORY COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM "Pharmacy, Industrial Pharmacy"			
1.1. Mandatory components of general training			
OK 1	Ukrainian as a Foreign Language	16	Test/Exam
OK 2	Foreign Language (for Professional Purposes)	4	Exam
OK 3	Higher Mathematics and Statistics	3	Passed
OK 4	Biological Physics with Physical Methods of Analysis	3	Passed
OK 5	Biology with Fundamentals of Genetics	3	Passed
OK 6	Human Anatomy and Physiology	4	Passed
OK 7	Latin Language	3	Exam
OK 8	Microbiology with Fundamentals of Immunology	4	Exam
OK 9	Information Technologies in Pharmacy	3	Passed
OK 10	Pathological physiology	4	Exam
OK 11	General and Inorganic Chemistry	5	Exam
OK 12	Organic Chemistry	5	Exam
OK 13	Analytical Chemistry	4	Exam
OK 14	Pharmaceutical Botany	4	Exam
OK 15	Biological Chemistry	4	Exam
<i>The total amount of mandatory components of the salary is as follows:</i>		69 credits	
1.2. Mandatory components of professional training			
OK 16	First aid	4	Exam
OK 17	Hygiene in Pharmacy and Ecology	3	Passed

OK 18	Pharmacy Technology of Medicines*	7	Test/Exam
OK 19	Industrial Technology of Medicines*	7	Test/Exam
OK 20	Life safety. Fundamentals of Bioethics and Biosafety	3	Passed
OK 21	Introduction to Pharmacy	3	Passed
OK 22	Pharmacognosy*	5	Exam
OK 23	Pharmacotherapy with pharmacokinetics	4	Exam
OK 24	Pharmacology	8	Test/Exam
OK 25	Physical and Colloid Chemistry	5	Exam
OK 26	Pharmaceutical Chemistry*	6	Test/Exam
OK 27	Organization and Economics of Pharmacy*	6	Exam
OK 28	Clinical Pharmacy and Pharmaceutical Care	4	Exam
OK 29	Pharmaceutical and Medical Commodity Science	3	Exam
OK 30	Pharmaceutical Management and Marketing	4	Exam
OK 31	Good Pharmaceutical Practices	3	Passed
OK 32	Occupational health and safety in the industry	3	Exam
OK 33	Ethics and deontology in pharmacy	3	Passed
OK 34	Computer Simulation in Pharmacy	3	Passed
OK 35	First aid in extreme situations	3	Exam
OK 36	First aid with introductory practice	3	Passed
OK 37	Educational practice in pharmaceutical botany	3	Passed

OK 38	Internship with ATLZ	6	Passed
OK 39	Pharmacognosy Training Practice	3	Passed
OK 40	Internship with PTLZ	3	Passed
OK 41	Industrial pharmacist practice	3	Passed
OK 42	Comprehensive professional exam	1	Comprehensive Exam*
OK 43	Certification of the Unified State Qualification Exam "Krok-1". Pharmacy", the exam in English for professional purposes	2	Test
<i>The total amount of mandatory components of the PP:</i>		<i>111 credits</i>	
Just:		180 credits	
*educational components included in the CFI			
2. ELECTIVE COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM "Pharmacy, Industrial Pharmacy"			
2.1. Elective components of general training**			
VC 1	Elective Discipline 1	4	Passed
VK 2	Elective Discipline 2	4	Passed
VC 3	Elective discipline 3	4	Passed
VC 4	Elective Discipline 4	4	Passed
VC 5	Elective discipline 5	4	Passed
VC 6	Elective Discipline 6	4	Passed
<i>The total amount of sample components of the salary is as follows:</i>		<i>24 credits</i>	
2.2. Elective components of vocational training			
VC 7	Elective Discipline 7	4	Passed

VC 8	Elective Discipline 8	4	Passed
VC 9	Elective discipline 9	4	Passed
VC 10	Elective discipline 10	4	Passed
VC 11	Elective discipline 11	4	Passed
VK 12	Elective discipline 12	4	Passed
VK 13	Elective discipline 13	4	Passed
VC 14	Elective discipline 14	4	Passed
VC 15	Elective discipline 15	4	Passed
<i>The total volume of sample components of the PP is as follows:</i>		36 credits	
Total for the selected components of the OPP:		60 credits	
THE TOTAL AMOUNT OF THE EDUCATIONAL PROGRAM		240 credits	

****LIST OF ELECTIVE DISCIPLINES**

<i>N/A Code</i>	Components of the educational program (academic disciplines, practices)	<i>Number of credits ECTS</i>	<i>Form of final control</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Disciplines of free choice of the applicant for higher education of general training			
2 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 1	Foreign Language	4	Passed
VK 2	Psychology of Communication	4	Passed
	Logic	4	Passed
	Fundamentals of Economics	4	Passed

3 SEMESTER (3 disciplines per semester are selected, 12 credits in total)			
VC 3	History of Medicine and Pharmacy	4	Passed
VC 4	Medicinal plants of the world flora	4	Passed
VC 5	Modern Problems of Molecular Biology	4	Passed
	Cell biology	4	Passed
	Applied Genetics	4	Passed
	Valeology	4	Passed
4 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 6	Nanotechnology and Nanomaterials in Pharmacy	4	Passed
VC 7	Functional biochemistry	4	Passed
	Organization of pharmaceutical care	4	Passed
	Social Function of Pharmaceutical Activity	4	Passed
<i>Just:</i>		<i>24 credits</i>	
Disciplines of free choice of the applicant for higher education, professional training			
5 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 8	Social interaction: pharmacist-doctor-patient	4	Passed
VC 9	Fundamentals of consumer behavior in pharmacy	4	Passed
	Medicinal formulation	4	Passed
	Side effects of medications	4	Passed
6 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 10	Homeopathic remedies	4	Passed
	Pharmaceutical Aspects of Nutrition and Biologically Active Additives	4	Passed

VC 11	Dermatology	4	Passed
	Aromatherapy in cosmetology and aromatherapy	4	Passed
7 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 12	Toxicological and Forensic Chemistry	4	Passed
	Pharmaceutical Law and Legislation	4	Passed
VC 13	Features of foreign economic activity in the pharmaceutical industry	4	Passed
	Fundamentals of Insurance Medicine	4	Passed
8 SEMESTER (2 disciplines per semester are selected, 8 credits in total)			
VC 14	Infectious diseases	4	Passed
	Pathophysiology of diseases of civilization	4	Passed
VC 15	Fundamentals of Chemical Metrology	4	Passed
	Drug Toxicology	4	Passed
<i>Just:</i>		<i>36 credits</i>	
The total amount of elective disciplines:		60 credits	

The sequence of educational components by semester and the structural and logical scheme of the EP are presented in Appendix 1 and Appendix 2.

3. Form of certification of students

Attestation is carried out by assessing the degree of formation of competencies in the form of a single state qualification exam, which consists of the following components: integrated test exam "Krok 1", the purpose of which is to assess the level of professional competence in general scientific (fundamental) disciplines and is conducted by the Testing Center at the Ministry of Health of Ukraine; (<https://www.testcentr.org.ua/uk/ispyty/spetsialnosti/farmatsiia>); An exam in English for professional purposes, which assesses the level of professional competence in English for professional purposes. and is conducted by the Testing Center at the Ministry of Health of Ukraine; (<https://www.testcentr.org.ua/uk/ispyty/spetsialnosti/farmatsiia>); a comprehensive professional exam that assesses the graduate's readiness to carry out professional activities in accordance with the requirements of the higher education standard by demonstrating practical components of professional competence and is

conducted by the examination board of the higher education institution; final exam in the discipline "Ukrainian as a foreign language", which is a systematized set of communicative skills, practical skills and theoretical knowledge of the Ukrainian language, which determine the ability of a foreign applicant, for whom Ukrainian language is not his native language (first), to meet various needs (social, domestic, educational, business, socio-cultural) with the help of the Ukrainian language.

Educational and professional program "Pharmacy. Industrial Pharmacy" is a systematic educational structure in which interdisciplinary connections are established both at the theoretical and practical levels. Each specific discipline has a theoretical basis and at the same time is focused on its mandatory practical application. All disciplines of the program are interconnected conceptually and methodologically, exist in a single system of holistic education, training students of the first (bachelor's) level of higher education in the specialty "Pharmacy, Industrial Pharmacy".

2.2. Sequence of educational components by semester

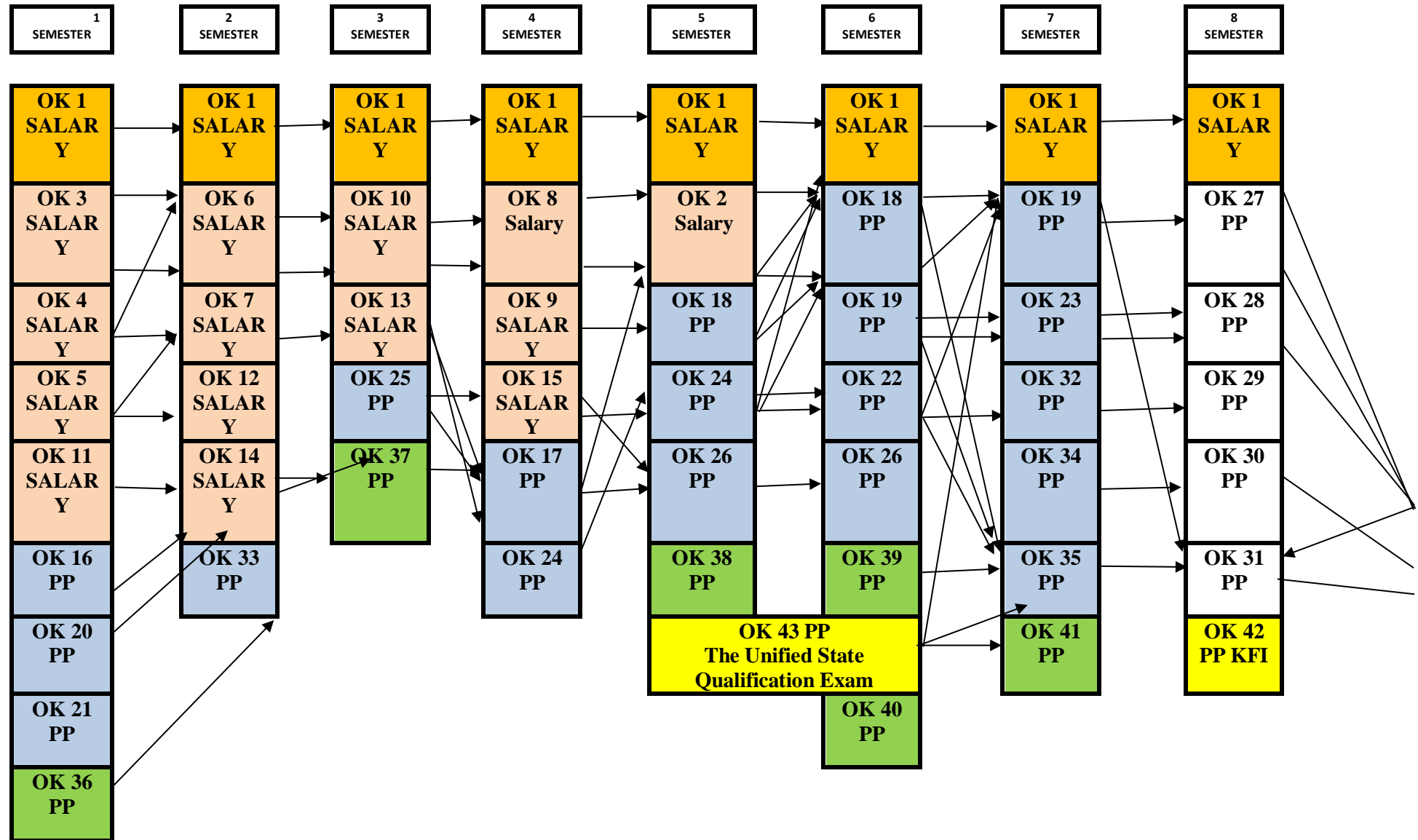
N/A Code	Components of the educational program (academic disciplines, practices)	Total Credits	Semesters and number of credits							
			1	2	3	4	5	6	7	8
1. MANDATORY COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM "Pharmacy, Industrial Pharmacy"										
1.1. Mandatory components of general training										
OK 1	Ukrainian as a Foreign Language	16	3	3	2	2	2	2	1	1
OK 2	Foreign Language (for Professional Purposes)	4					4			
OK 3	Higher Mathematics and Statistics	3	3							
OK 4	Biological Physics with Physical Methods of Analysis	3	3							
OK 5	Biology with Fundamentals of Genetics	3	3							
OK 6	Human Anatomy and Physiology	4		4						
OK 7	Latin Language	3		3						
OK 8	Microbiology with Fundamentals of Immunology	4				4				
OK 9	Information Technologies in Pharmacy	3				3				
OK 10	Pathological physiology	4			4					
OK 11	General and Inorganic Chemistry	5	5							

OK 12	Organic Chemistry	5		5						
OK 13	Analytical Chemistry	4			4					
OK 14	Pharmaceutical Botany	4		4						
OK 15	Biological Chemistry	4				4				
1.2. Mandatory components of professional training										
OK 16	First aid	4	4							
OK 17	Hygiene in Pharmacy and Ecology	3				3				
OK 18	Pharmacy Technology of Medicines*	7					4	3		
OK 19	Industrial Technology of Medicines*	7						2	5	
OK 20	Life safety. Fundamentals of Bioethics and Biosafety	3	3							
OK 21	Introduction to Pharmacy	3	3							
OK 22	Pharmacognosy*	5						5		
OK 23	Pharmacotherapy with pharmacokinetics	4							4	
OK 24	Pharmacology	8				6	2			
OK 25	Physical and Colloid Chemistry	5			5					
OK 26	Pharmaceutical Chemistry*	6					3	3		
OK 27	Organization and Economics of Pharmacy*	6								6
OK 28	Clinical Pharmacy and Pharmaceutical Care	4								4

OK 29	Pharmaceutical and Medical Commodity Science	3								3
OK 30	Pharmaceutical Management and Marketing	4								4
OK 31	Good Pharmaceutical Practices	3								3
OK 32	Occupational health and safety in the industry	3							3	
OK 33	Ethics and deontology in pharmacy	3		3						
OK 34	Computer Simulation in Pharmacy	3							3	
OK 35	First aid in extreme situations	3							3	
OK 36	First aid with introductory practice	3	3							
OK 37	Educational practice in pharmaceutical botany	3			3					
OK 38	Internship with ATLZ	6				6				
OK 39	Pharmacognosy Training Practice	3						3		
OK 40	Internship with PTLZ	3						3		
OK 41	Industrial pharmacist practice	3							3	
OK 42	Comprehensive professional exam	1								1
OK 43	Certification of the Unified State Qualification Exam "Krok-1". Pharmacy", AMPS exam	2					1	1		
2. ELECTIVE COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM "Pharmacy, Industrial Pharmacy"										

2.1. Elective components of general training										
VC 1	Elective Discipline 1	4		4						
VK 2	Elective Discipline 2	4		4						
VC 3	Elective discipline 3	4			4					
VC 4	Elective Discipline 4	4			4					
VC 5	Elective discipline 5	4			4					
VC 6	Elective Discipline 6	4				4				
2.2. Elective components of vocational training										
VC 7	Elective Discipline 7	4				4				
VC 8	Elective Discipline 8	4					4			
VC 9	Elective discipline 9	4					4			
VC 10	Elective discipline 10	4						4		
VC 11	Elective discipline 11	4						4		
VK 12	Elective discipline 12	4							4	
VK 13	Elective discipline 13	4							4	
VC 14	Elective discipline 14	4								4
VC 15	Elective discipline 15	4								4
Just:			30	30	30	30	30	30	30	30
Total: 240 credits										

2.3. Structural and logical diagram of the EP



4. MATRIX OF CORRESPONDENCE OF INTEGRAL COMPETENCE AND GENERAL COMPETENCIES TO THE COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM

	OK 1	OK 2	OK 3	OK 4	OK 5	OK 6	OK 7	OK 8	OK 9	OK 10	OK 11	OK 12	OK 13	OK 14	OK 15	OK 16	OK 17	OK 18	OK 19	OK 20	OK 21	OK 22	OK 23	OK 24	OK 25	OK 26	OK 27	OK 28	OK 29	OK 30	OK 31	OK 32	OK 33	OK 34	OK 35	OK 36	OK 37	OK 38	OK 39	OK 40	OK 41	OK 42	OK 43					
IR	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
GC1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
GC2				*	*	*		*	*	*	*	*	*	*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
GC3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ZK4		*						*																									*											*				
GC5			*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
GC6								*			*	*	*		*			*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
GC7	*															*	*	*	*	*							*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
GC8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
ZK9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

IR – integral competence; GC – general competencies; OK – the main components of the educational program (academic disciplines, practices, certification);

* - acquired competence

5. MATRIX OF CORRESPONDENCE OF PROFESSIONAL (SPECIAL) COMPETENCIES TO THE COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM

	OK 1	OK 2	OK 3	OK 4	OK 5	OK 6	OK 7	OK 8	OK 9	OK 10	OK 11	OK 12	OK 13	OK 14	OK 15	OK 16	OK 17	OK 18	OK 19	OK 20	OK 21	OK 22	OK 23	OK 24	OK 25	OK 26	OK 27	OK 28	OK 29	OK 30	OK 31	OK 32	OK 33	OK 34	OK 35	OK 36	OK 37	OK 38	OK 39	OK 40	OK 41	OK 42	OK 43						
FC1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
FC2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
FC3	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
FC4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
FC5										*						*	*		*		*											*	*		*	*		*	*		*	*		*	*				
FC6																			*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
FC7						*										*																				*	*												
FC8																			*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
FC9											*	*	*	*	*	*	*		*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
FC 10														*	*				*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
FC 11														*	*				*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
FC 12																							*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
FC 13																											*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

FC – professional (special) competencies; OK – the main components of the educational program (academic disciplines, practices, certification); * - acquired competence

6. MATRIX OF CORRESPONDENCE OF PROGRAM LEARNING OUTCOMES TO THE COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM

	OK 1	OK 2	OK 3	OK 4	OK 5	OK 6	OK 7	OK 8	OK 9	OK 10	OK 11	OK 12	OK 13	OK 14	OK 15	OK 16	OK 17	OK 18	OK 19	OK 20	OK 21	OK 22	OK 23	OK 24	OK 25	OK 26	OK 27	OK 28	OK 29	OK 30	OK 31	OK 32	OK 33	OK 34	OK 35	OK 36	OK 37	OK 38	OK 39	OK 40	OK 41	OK 42	OK 43
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PRN 1			*	*		*		*							*		*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*						
PRN 2			*	*		*		*	*	*	*	*	*	*																									*	*	*	*	*	*	*					
PRN 3			*	*	*										*	*			*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*				
PRN 4	*	*				*																		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
PRN 5															*	*			*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
PRN 6																								*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
PRN 7	*	*			*		*	*	*	*	*	*	*		*	*			*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
PRN 8	*	*				*	*								*	*			*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
PRN 9	*	*				*										*	*							*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
PRN 10	*	*				*							*	*			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
PRN 11	*	*				*				*	*	*	*	*		*	*			*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRN 12					*	*							*			*							*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
PRN 13																	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

PRN – program learning outcomes; OK – the main components of the educational program (academic disciplines, practices); * - acquired competence