MINISTRY OF HEALTH OF UKRAINE

IVANO-FRANKIVSK NATIONAL MEDICAL UNIVERSITY

EDUCATIONAL PROFESSIONAL PROGRAM "PHARMACY, INDUSTRIAL PHARMACY"

The second (master's) level of higher education

Field of Study 22 " Health"
Specialty 226 "Pharmacy, Industrial Pharmacy"
Educational qualification: Master of Pharmacy, Industrial Pharmacy
Professional qualification: Pharmacist

APPROVED BY THE ACADEMIC COUNCIL OF IFNMU

Head of the Academic Council _____ Mykola Rozhko

(minutes No.5 on May 26, 2020)

The Educational Program is implemented on _____ 2020

Rector of IFNMU _____ Mykola Rozhko

(order No. 560-d on May 28, 2020)

Ivano-Frankivsk – 2020

LETTER OF APPROVAL

of Educational Professional Program

The Guarantor of the Educational Program: Iryna Fedyak, Candidate of Pharmaceutical Sciences, Associate Professor of the Organisation and Economy of Pharmacy and Drug Technology Department, Dean of the Faculty of Pharmacy

Members of the working group:

1. Iryna Ivanchuk - Candidate of Pharmaceutical Sciences, Associate Professor at the Department of Pharmacy, Vice Dean of the Faculty of Pharmacy;
2. Andrii Grytsuk - Doctor of Pharmaceutical Sciences, Professor, Head of the Department of Pharmacy;
3. Dmytro Semeniv - Doctor of Pharmaceutical Sciences, Professor, Head of the Organisation and Economy of Pharmacy and Drug Technology Department;
4. Iryna Kupnovytska - Doctor of Medical Sciences, Professor, Head of the Department of Clinical Pharmacology of Pharmacotherapy;
5. Andrii Stetskiv - Doctor of Chemical Sciences, Associate Professor, Head of the Department of Chemistry of the Faculty of Pharmacy.

Submitted by:

Cyclic Methodical Commission of the Faculty of Pharmacy of IFNMU

Minutes No. 5 dated 20.01.2020

Head of Cyclic Methodical Commission _____ Iryna Fedyak

Approved by:

Central Methodical Council of IFNMU

Minutes No. 3 dated 12.02.2020.

Head of Central Methodical Council _____ Hanna Ersteniuk

PREAMBLE

The educational professional program is developed according to requirements of article 1 item 17, article 10 item 3, article 29 of the Law of Ukraine "On Higher Education", National Classifier of Ukraine: "Classifier of Professions" SC 003: 2010, Resolution of the Cabinet of Ministers on 29.04.2015 No. 266 "On approval of the list of fields of study and specialties on the base of which the training of applicants of higher education is performed."

The educational professional program is developed by the working group of the specialty 226 "Pharmacy, Industrial Pharmacy" of Ivano-Frankivsk National Medical University consisting of:

- Iryna Fedyak - Candidate of Pharmaceutical Sciences, Associate Professor at the department of Organization and Economics of Pharmacy and Drug Technology, Dean of the Faculty of Pharmacy, guarantor of educational professional program;
- Iryna Ivanchuk - Candidate of Pharmaceutical Sciences, Associate Professor at the department of Pharmacy, Vice Dean of the Faculty of Pharmacy;
- Andrii Grytsuk - Doctor of Pharmaceutical Sciences, Professor, Head of the Department of Pharmacy;
- Dmytro Semeniv - Doctor of Pharmaceutical Sciences, Professor, Head of the department of Organization and Economics of Pharmacy and Drug Technology;
- Iryna Kupnovytska - Doctor of Medical Sciences, Professor, Head of the Department of Clinical Pharmacology of Pharmacotherapy;
- Andrii Stetskiv - Doctor of Chemical Sciences, Associate Professor, Head of the Department of Chemistry of the Faculty of Pharmacy.

Academic community feedback:

Reviews of external stakeholders:

1. Nadia Shpur – Head of the State Service for Medicines and Drug Control in Ivano-Frankivsk region, pharmacist of the highest qualification category, Ivano-Frankivsk;
2. Ivan Vengryniuk – Commercial Director of Iva-Pharm LLC, pharmacist of the highest qualification category, Chairman of the Ivano-Frankivsk Regional Association of Pharmacists, Ivano-Frankivsk;
3. Yaroslava Samborska – Head of Centoria LLC, pharmacist of the highest qualification category, Ivano-Frankivsk;
4. Uliana Nicholls – graduate of the Faculty of Pharmacy in 2008, Pharmacist Independent Prescriber, Hair Loss Specialist, The Belgravia Centre (London, Great Britain);
5. Iryna Panas - a graduate of 2011, head of the pharmacy No.2 a private pharmaceutical company Healthy Family (Ivano-Frankivsk, Ukraine);

6. Arthur Pustovit - graduate of the Faculty of Pharmacy in 2013, Master of Pharmacy, Solispharm Spółka z ograniczoną odpowiedzialnością (Warsaw, Poland).

1. Profile of the educational program in the specialty 226 "Pharmacy, industrial pharmacy"

1 – General Information	
The full name of the higher educational institution and structural subdivisions	Ivano-Frankivsk National Medical University (IFNMU) Faculty of Pharmacy
Academic degree and title of qualification in the original language	Degree Level – Master Educational qualification – Master of Pharmacy, Industrial Pharmacy Professional qualification – Pharmacist Qualification in the diploma – Master of Pharmacy, Industrial Pharmacy. Pharmacist
Official title of educational program	Educational professional program "Pharmacy, industrial pharmacy" of the second (master's) level of higher education
Type of diploma and scope of educational program	Master's degree, single cycle degree 300 ECTS credits, term of study 5 years (full-time) and 5.5 years (part-time) on the basis of complete general secondary education; 300 ECTS credits, term of study 4 years (full-time) and 4.5 years (part-time) on the basis of bachelor's degree (junior specialist) in a related specialty.
Availability of accreditation	The program is accredited for the first time in 2020
Cycle / level	NQF (national qualifications framework) of Ukraine – level 8, FQ-EHEA – second cycle, EQF LLL – level 7
Prerequisites	Requirements for previous education - complete general secondary education (according to the results of external independent evaluation certificates) or educational qualification level of junior specialist (junior bachelor), bachelor in the relevant specialty of pharmaceutical / medical field (according to the results of entrance exams).
Language (s) of teaching	Ukrainian, English, Russian
Duration of educational program	Duration of educational program till 2025 with an annual scheduled update

Internet address of the permanent posting of the description of educational program	https://ifnmu.edu.ua/uk/publichna-informatsiya/osvitni-prohramy

2 – Aim of the educational program

Training a specialist who is able to solve complex problems and problems in the field of pharmacy and health care or in the learning process, which involves researches and / or innovation and is characterized by uncertainty of conditions and requirements. Ensure highly effective activities in the national and international educational and scientific sphere in order to train highly qualified pharmaceutical professionals with moral and spiritual values, competitive in the domestic and international labor markets, able to provide quality pharmaceutical care to the population.

Forming the ability to apply the acquired knowledge, skills, competencies and understanding in the humanities, fundamental and vocational disciplines to carry out professional activities in the relevant position, including pharmaceutical care, ensuring safe and rational use of medicines, monitoring the effectiveness of pharmacotherapy and / or side effects, willingness to bear (or share) responsibility for the results of pharmacotherapy, stages of making drugs, their storage, quality control, delivery, distribution, promotion, regulation, supply of drugs and other pharmaceutical products taking into account current international trends, providing pharmaceutical care on the basis of pharmaceutical ethics and deontology.

3 - Characteristics of the educational program

Official title of educational program	Educational professional program "Pharmacy, industrial pharmacy" of the second (master's) level of higher education
Subject area (field of study, specialty, specialization)	The activity of the master of pharmacy, industrial pharmacy includes consultative-communicative, organizational, technological, control-analytical, administrative-economic (managerial), research functions; determination of safety, efficiency and cost-effectiveness of pharmacotherapy; needs for medicines and other pharmaceutical products, organization of their supply; providing modern technology for the development and manufacture of drugs according to prescriptions and requirements of health care institutions; acceptance, storage and sale of medicines, control over the quality of medicines; implementation of pharmaceutical care; conducting advertising and information work, adherence to the principles of pharmaceutical ethics and deontology, continuous improvement of the professional level. Field of Study 22 " Healthcare" Specialty 226 "Pharmacy, industrial pharmacy".

Orientation of the educational program	Educational professional program "Pharmacy, industrial pharmacy" focuses on the current WHO requirements as for the role and mission of the pharmacist in the health care system, organically combines theoretical and practical components of training both on the basis of practice and in conditions as close as possible to reality. Educational professional program is aimed at developing the ability to solve typical and complex specialized problems and critically comprehend and solve practical problems in professional pharmaceutical and / or research and innovation activities using the provisions, theories and methods of fundamental, chemical, technological, biomedical and socio-economic sciences; ability to apply the acquired knowledge, skills and abilities in the disciplines of general and professional training to solve typical tasks of the specialist in the relevant position, including the manufacture of drugs, their storage, quality control, delivery, distribution, issuance, regulation of medicines, as well as consulting, providing information on medicines and monitoring of side effects and / or ineffectiveness of treatment; integrate knowledge and solve complex issues, formulate judgments on insufficient or limited information; clearly and unambiguously convey their own knowledge, conclusions and their validity to professional and non-professional audience.
The main focus of the educational program and specialization	The focus of the educational program is based on training modern specialists capable to solve complex specialized tasks and practical problems by acquiring general and special competencies for professional activities in the relevant position, including pharmaceutical care, ensuring safe and rational use of drugs, monitoring the effectiveness of pharmacotherapy and / or side effects, willingness to bear (or share) responsibility for the results of pharmacotherapy, stages of manufacture of drugs, their storage, quality control, delivery, distribution, promotion, regulation, supply of drugs and other pharmaceutical products taking into account current international trends, pharmaceutical care on the basis of pharmaceutical ethics and deontology. Special higher education in the field of study 22 " Healthcare" specialty 226 "Pharmacy, industrial pharmacy". Key words: healthcare, pharmacy, industrial pharmacy, higher education, master.
Peculiarities of the program	The program combines theoretical and practical training of applicants, is based on modern scientific results and principles of pharmaceutical science and a set of good pharmaceutical practices, is implemented in a logical sequence of disciplines

	of the curriculum, involves practitioners to guide students in industrial pharmaceutical practice, conducting lectures and practical classes of disciplines of the cycle of professional training. Obligatory for all students are trainings conducted on the basis of educational and practical centers of IFNMU, pharmacies, manufacturing enterprises. The program is also implemented in English and Russian.
4 - Eligibility of graduates for employment and further training	
Eligibility for employment	A specialist is able to perform the specified professional work according to qualification types of economic activities SC 009:2010: Section C. Manufacturing industry: Paragraph 20 Manufacture of chemicals and chemical products Group 20.4 Manufacture of soap and detergents, cleaning and polishing goods, perfumes and cosmetics Class 20.42 Manufacture of perfumes and cosmetics Group 20.5 Manufacture of other chemical products Class 20.53 Manufacture of essential oils Paragraph 21 Manufacture of basic pharmaceutical products and pharmaceutical preparations Group 21.1 Manufacture of basic pharmaceutical products Class 21.10 Manufacture of basic pharmaceutical products Group 21.2 Manufacture of pharmaceutical preparations and materials Class 21.20 Manufacture of pharmaceutical preparations and materials Section G. Wholesale and retail trade; repair of motor vehicles and motorcycles Paragraph 46 Wholesale trade, except the sale of motor vehicles and motorcycles Class 46.45 Wholesale of perfume and cosmetics Class 46.46 Wholesale of pharmaceutical goods Section 47 Retail trade, except the sale of motor vehicles and motorcycles Group 47.7 Retail sale of other goods in specialized stores Class 47.73 Retail sale of pharmaceutical goods in specialized stores Class 47.74 Retail sale of medical and orthopedic goods in specialized stores Class 47.75 Retail sale of cosmetics and toiletries in specialized stores Section P. Education Paragraph 85 Education Group 85.4 Higher education

	Class 85.41 Professional pre-university education Class 85.42 Higher education Section Q. Health and social care Paragraph 86. Health Group 86.9 Other health care activities Class 86.90 Other health care activities After completing the educational professional program of specialty 226 "Pharmacy, Industrial Pharmacy", the specialist is able to perform professional work: - pharmacist-intern (classifier of professions code – 3228); - junior researcher (pharmacy) (classifier of professions code – 2224.1); - researcher (pharmacy) (classifier of professions code – 2224.1); - teacher in higher education institution (classifier of professions code – 2310.2); - teacher-trainee (classifier of professions code - 3340).
Further training	After completing the educational professional program, the graduate can be admitted to postgraduate education program (internship, residency), where training is performed on educational programs for the specialty 226 "Pharmacy, Industrial Pharmacy". After training in the internship, the residency a specialist is assigned a qualification - Pharmacist who is able to perform the specified in SC 003: 2010 professional work and can hold the appropriate position: 2224.2 Pharmacist. Such specialist has the right: - to pass specialization and perform the relevant professional work of a pharmacist of a certain specialty, which is specified in the current National Classifier of Ukraine "Classifier of Professions", to hold the appropriate pharmacist position; - to continue education at the third (educational scientific) level of higher education to obtain the degree of Doctor of Philosophy in the field of study 22 "Health" specialty 226 "Pharmacy, industrial pharmacy"; - to acquire another specialty, which gives the opportunity to hold a relevant pharmacy position and perform relevant professional work; - to increase the level of qualification in the system of continuous postgraduate education in the specialty 226 "Pharmacy, industrial pharmacy", as well as to acquire additional qualifications in the system of postgraduate education.

5 - Teaching and assessment	
Teaching and studying	Teaching in the form of lectures, practical, laboratory, seminar classes in small groups in educational and practical centers "Pharmacy", "Medicine"; educational, industrial pharmaceutical practice in pharmacies, industrial enterprises; consultations with teachers (including remote learning); individual extracurricular work of students. Studying: student-centered, initiative self-study, competence and problem-oriented; studying through practice, mixed (e-learning), which allows to realize the purpose and the right for individual organization of studying.
Assessment	Assessment of the results of study is made on the principles of objectivity, systematics and systematization, planning, unity of requirements, openness, transparency, accessibility and clarity of assessment methods considering the individual capabilities of students. The system of assessment of students' knowledge in each discipline includes current and final control of knowledge, assessment of practice results and certification of graduates. Current control - testing of knowledge during practical classes and seminars, reports, projects; demonstration of practical skills. Final control of knowledge is performed in the form of tests, final module controls, exams. Certification of applicants of the second (master's) level of higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" is performed in the form of the Unified State Qualification Examination, which includes: - integrated test exam "Krok", which assesses the appropriateness of the quality of theoretical training of the specialist to higher education standards; - professional English exam, which assesses the student's competence in professional English; - an objective structured practical exam that assesses the preparation of the graduate to pursue a professional activity in accordance with the requirements of the standards of higher education by demonstrating the practical components of professional competence as close as possible to the realities of practical activity and / or in the form of master's thesis.
6 – Program competencies	
Integral competency	Ability to solve typical and complex specialized problems and critically comprehend and solve practical problems in professional pharmaceutical and / or research and innovation activities using the thesis, theories and methods of basic,

	chemical, technological, biomedical and socio-economic sciences; integrate knowledge and solve complex issues, formulate judgments on insufficient or limited information; clearly and unambiguously convey their own knowledge, conclusions and their validity to professional and non-professional audience.
General competencies (GC)	GC 1. Ability to act socially responsibly and consciously in public.
	GC 2. Ability to apply knowledge in practical situations.
	GC 3. The desire to preserve the environment.
	GC 4. Ability for abstract thinking, analysis and synthesis, to learn and be modernly trained.
	GC 5. Ability to show initiative and entrepreneurship.
	GC 6. Knowledge and understanding of the subject area and understanding of professional activity.
	GC 7. Ability to adapt and act in a new situation.
	GC 8. Ability to communicate in the state language both orally and in written form, the ability to communicate in a foreign language (mostly English) at a level that ensures effective professional activity.
	GC 9. Skills in the use of information and communication technologies.
	GC 10. Ability to choose communication strategies, ability to work in a team and with experts from other fields of study / types of economic activity.
	GC 11. Ability to evaluate and ensure the quality of work performed.
	GC 12. Ability to conduct research at the appropriate level.
	GC 13. The ability to realize rights and responsibilities as a member of society, to understand the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
	GC 14. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding 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, techniques and technologies. active recreation and leading a healthy lifestyle.
Professional competencies (PC)	Special (professional) competencies are grouped into five clusters according to the Global Competence Framework for Pharmaceutical Specialists of the International Pharmaceutical Federation (FIP Education Initiatives. Pharmacy Education

	Taskforce. A Global Competency Framework, v.1) and taking into account national features of training of applicants of higher pharmaceutical education.
	Cluster 1 *Pharmaceutical competencies in healthcare system*
	PC 1. Ability to conduct sanitary and educational work among the population to prevent common, dangerous, infectious, viral and parasitic diseases as well as to facilitate the timely detection and maintenance of adherence to treatment of these diseases in accordance with their medical and biological characteristics and microbiological characteristics.
	PC 2. Ability to provide consultation on prescription and over-the-counter drugs and other pharmaceutical products; pharmaceutical care in the selection and implementation of over-the-counter drugs by assessing the risk/benefit, compatibility, indications and contraindications based on data on the health of a particular patient, taking into account biopharmaceutical, pharmacokinetic, pharmacodynamics and physicochemical characteristics of the drug and other products of pharmacy range.
	PC 3. Ability to provide home care to patients and the injured in extreme situations and emergencies.
	Cluster 2 *Competences in the field of providing pharmaceutical care to the population*
	PC 4. Ability to ensure the rational use of prescription and over-the-counter drugs and other pharmaceutical products in accordance with the physicochemical, pharmacological characteristics, biochemical, pathophysiological features of a particular disease and pharmacotherapeutic regimens for its treatment.
	PC 5. Ability to monitor the effectiveness and safety of the use of drugs by the population according to the data on their clinical and pharmaceutical characteristics, as well as taking into account subjective signs and objective clinical, laboratory and instrumental criteria for examination of the patient.
	PC 6. Ability to identify drugs, xenobiotic, toxins and their metabolites in body fluids and tissues, to conduct chemical and toxicological studies to diagnose acute poisoning, drug and alcohol intoxication.
	PC 7. Ability to ensure proper storage of medicines and other products of the pharmacy range in accordance with their physical and chemical properties and the rules of Good Storage Practice (GSP) in health care facilities.
	Cluster 3

	Organizational and managerial competencies
	PC 8. Ability to organize the activities of pharmacies to provide the population, health care facilities with medicines and other products of the pharmacy range and implement appropriate reporting and accounting systems (management, statistical, accounting and financial) in accordance with the requirements of National Medical Policy, Good Pharmacy Practice (GPP)) and carry out commodity analysis, administrative record by taking into account the organizational and legal norms of pharmaceutical legislation.
	PC 9. Ability to analyze and forecast the main economic indicators of pharmacies, to calculate basic taxes and fees, to form prices for medicines and medical devices in accordance with current legislation of Ukraine.
	PC 10. Ability to develop, implement and apply management approaches in the professional activities of pharmacies, wholesalers, manufacturing companies and other pharmaceutical organizations, to affirm the principles of HR-management and self-management, to demonstrate leadership skills.
	PC 11. Ability to analyze socio-economic processes in pharmacy, forms, methods and functions of the pharmaceutical system and its components in world practice, indicators of need, efficiency and availability of pharmaceutical care in terms of health insurance and reimbursement of the cost of drugs.
	Cluster 4. *Professional and personal competencies*
	PC 12. Ability to use in professional activities the knowledge of regulations, legislation of Ukraine and recommendations of Good Pharmacy Practice.
	PC 13. Ability to demonstrate and apply in practical activity communication skills, fundamental principles of pharmaceutical ethics and deontology based on moral obligations and values, ethical standards of professional conduct and responsibility in accordance with the Code of Ethics for Pharmaceutical Workers of Ukraine and WHO guidelines.
	PC 14. Ability to organize and perform the production activities of pharmacies for the manufacture of drugs in various dosage forms in prescriptions and orders of medical institutions, including technology justification and selection of auxiliary materials in accordance with the rules of Good Pharmacy Practice (GPP).
	PC 15. Ability to organize and participate in the production of

	medicines in the context of pharmaceutical companies, 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 design of the necessary documentation. Determine the stability of drugs.
	PC 16. Ability to organize and procure the provision of medicinal plant raw materials in accordance with the rules of Good Practice for Cultivation and Collection of Herbal Raw Materials (GACP), as a guarantee of the quality of medicinal plant raw materials and medicinal products based on it. Ability to predict and calculate ways to solve the problem of conservation and protection of thickets of wild medicinal plants, in accordance with current legislation.
	PC 17. Ability to organize and perform general and marketing management of assortment, product innovation, pricing, sales and communication policies of pharmaceutical market participants based on the results of marketing research and taking into account market processes in national and international markets, manage risks in the pharmaceutical system.
	Cluster 5. *Competences in the field of assurance and management of the quality*
	PC 18. Ability to develop and implement a quality management system for pharmaceutical companies in accordance with the requirements of current Standards, perform quality audits and risk management for the quality of pharmaceutical products.
	PC 19. Ability to organize and control the quality of medicines in accordance with the requirements of the current State Pharmacopoeia of Ukraine and good practices in pharmacy, determine sampling methods for control of medicines and standardize them in accordance with current requirements, prevent the spread of counterfeit medicines.
	PC 20. Ability to develop methods for quality control of medicines, including active pharmaceutical ingredients, medicinal plant raw materials and excipients using physical, chemical, physicochemical, biological, microbiological, pharmacotechnological and organoleptic methods of control.
7 - Program results of studying	
Program results of studying (PRS)	PRS 1. To perform professional activities in social interaction based on humanistic and ethical principles; to identify future professional activities as socially significant for human health.
	PRS 2. To apply knowledge of general and professional

	disciplines in professional activities.
	PRS 3. To follow the norms of sanitary and hygienic regime and safety requirements when performing professional activities.
	PRS 4. To demonstrate the ability to independently search, analyze and synthesize information from various sources and to use these results to solve typical and complex specialized tasks of professional activity.
	PRS 5. To position professional activity and personal qualities in the pharmaceutical labor market; to formulate the purposes of own activity taking into account public and industrial interests.
	PRS 6. To declare information for decision-making and be responsible for them in standard and non-standard professional situations; to follow the principles of deontology and ethics in professional activities.
	PRS 7. To perform professional activities using creative methods and approaches.
	PRS 8. To perform professional communication in the official language, to use the skills of oral communication in a foreign language, analyzing texts of professional orientation and to translate foreign language information sources.
	PRS 9. To perform professional activities using information technology, Information Databases, navigation systems, Internet resources, software and other information and communication technologies.
	PRS 10. To follow the norms of communication in professional interaction with colleagues, management, consumers, work effectively in a team.
	PRS 11. To use methods for assessing quality indicators; to identify reserves to increase labor efficiency.
	PRS 12. To analyze the information obtained as a result of scientific research, summarize, systematize and use it in professional activities.
	PRS 13. To perform sanitary educational work in professional activity in case of outbreaks of infectious, viral and parasitic diseases.
	PRS 14. To determine the advantages and disadvantages of drugs of different pharmacological groups taking into account their chemical, physicochemical, biopharmaceutical, pharmacokinetic and pharmacodynamics features. To recommend consumers over-the-counter medicines and other products of the pharmacy range with the provision of consultative and pharmaceutical care.

	PRS 15. To provide home care to patients in emergencies and the injured in extreme situations.
	PRS 16. To determine the factors influencing the processes of absorption, distribution, deposition, metabolism and excretion of the drug characterized by the condition, features of the human body and physicochemical properties of drugs.
	PRS 17. To use clinical, laboratory and instrumental research data to monitor the efficiency and safety of drugs.
	PRS 18. To select biological objects of analysis, to make determination of xenobiotic and their metabolites in biological environments and evaluate the results based on their distribution in the body.
	PRS 19. To predict and determine the impact of environmental factors on the quality of medicines and consumer characteristics of other products of the pharmacy range during their storage.
	PRS 20. To implement a set of organizational and managerial measures to provide the population and health care facilities with medicines and other products of the pharmacy range. To perform all types of accounting in pharmacies, administrative records, processes of commodity analysis.
	PRS 21. To calculate the main economic indicators of pharmacies, as well as taxes and fees. Form all types of prices (wholesale, purchase and retail) for medicines and other products of the pharmacy range.
	PRS 22. To manage pharmaceutical organizations and determine its effectiveness using management functions. Make management decisions based on the formed leadership and communication skills of pharmaceutical staff in terms of strategic planning of enterprises.
	PRS 23. To take into account data on socio-economic processes in society for the pharmaceutical supply of the population, to determine the effectiveness and availability of pharmaceutical care in terms of health insurance and reimbursement of the cost of drugs.
	PRS 24. To plan and implement professional activities on the basis of regulations of Ukraine and recommendations of Good Pharmaceutical Practices.
	PRS 25. To promote health preservation, including disease prevention, rational prescription and use of medicines. To perform professional duties in good faith, comply with the law on the promotion and advertising of medicines. To have psychological communication skills to build trust and understanding with colleagues, doctors, patients, consumers.

	PRS 26. To choose rational technology, to make medicines in various dosage forms according to prescriptions of doctors and orders of medical institutions, to issue them before release. To perform technological operations: weigh, measure, dose a variety of drugs by weight, volume, etc. To develop and draw up technological documentation for the manufacture of medicines in pharmacies.
	PRS 27. To justify the technology and to organize the production of medicines at pharmaceutical enterprises and draw up technological documentation for the production of medicines at pharmaceutical enterprises.
	PRS 28. To organize and conduct rational procurement of medicinal plant raw materials. To develop and implement measures for the protection, reproduction and rational use of wild species of medicinal plants.
	PRS 29. To provide competitive positions and effective development of pharmaceutical organizations on the basis of the conducted research work on all elements of the marketing complex.
	PRS 30. To provide quality control of medicines and to document its results. To manage quality risks at all stages of the life cycle of medicines.
	PRS 31. To perform all types of quality control of medicines; to draw up quality certificates for the batch of the medicinal product and the certificate of analysis taking into account the requirements of current regulations, the State Pharmacopoeia of Ukraine and the results of quality control. To develop specifications and quality control methods in accordance with the requirements of the current State Pharmacopoeia of Ukraine.
	PRS 32. To determine the main organoleptic, physical, chemical, physicochemical and pharmacotechnological indicators of drugs, to substantiate and choose methods of their standardization, to perform statistical processing of results in accordance with the requirements of the current State Pharmacopoeia of Ukraine.
8 - Resource support for the implementation of the program	
Staffing	All scientific – pedagogical workers involved in the implementation of the educational and professional program in the specialty 226 "Pharmacy, Industrial Pharmacy" have a qualification corresponding to the specialty, a confirmed level of scientific and professional activity. The vast majority of scientific – pedagogical workers are full-time employees of IFNMU. Staffing of departments and project team meet the

	licensing conditions of educational activities. The group providing the educational and professional program in the specialty 226 "Pharmacy, Industrial Pharmacy" consists of 111 scientific – pedagogical workers 101 people (90.99%) have a scientific degree and academic title. In the support group, the share of those who have a doctorate is 25.74% (26 people), candidates of science - 74.26% (75 people). The scientific - pedagogical specialty of teachers who provide the educational process corresponds to the disciplines they teach. Among scientific – pedagogical staff 24 people (21.62%) have certificates in accordance with the European Recommendation on Language Education at the B1-C1 level or qualification documents (diploma of higher education, scientific degree) related to the use of English including not less than B2 - 20 people (18.01%). In addition, 18 people (16.21%) have completed internships abroad in the last 3 years. Advanced training is carried out systematically in accordance with the Procedure for advanced training of scientific - pedagogical workers and teaching staff which came into force on January 1, 2020, the frequency of advanced training - once a year for five years. Over the last 5 years 100% of teachers have completed advanced training; in addition 100% of teachers have a doctorate scientific degree or PhD and give lectures in educational disciplines in the specialty 226 "Pharmacy, Industrial Pharmacy" and work on a permanent basis; graduating departments are headed by doctors of sciences. The level of scientific and professional activity of research and teaching staff is evidenced by the implementation of the last 5 years at least 4 conditions specified in paragraph 5 of the notes (subparagraphs 1-18) of the Resolution of the Cabinet of Ministers No 1187 on 30.12.2015 "On approval of licensing conditions for educational activities". Employment agreements have been concluded with all scientific - pedagogical workers after passing the tender commission. The Faculty of Pharmacy works closely with future employers of graduates: joint scientific and practical conferences are held; employees of practical pharmacy of Prykarpattia are members of the examination commission for attestation of graduates; they give lectures, conduct separate practical classes on the basis of business entities, meetings of student scientific circles, manage the production of pharmaceutical

	practice, part-time internship; their wishes are taken into account in the formation of selective components of training.
Logistics	IFNMU has a sufficient material and technical base for the training of masters in the educational professional program in the specialty 226 "Pharmacy, Industrial Pharmacy". Appropriate infrastructure has been created with the appropriate material and technical base which meets the current requirements. In 2002 a separate building of the Faculty of Pharmacy was built for 400 people with a total area of 3836.1 square meters, a training and production pharmacy with the right to manufacture drugs was opened (which was reorganized into educational and practical center "Pharmacy" in 2019), a training and research field in Tysmenytsia district , educational - research and research sites in the territories adjacent to the pharmaceutical building. The educational process uses modern technical teaching aids, educational and practical center "Pharmacy" and "Medicine" (including certified in 2019 by the Ministry of Health educational and practical center "Pharmacy. Chromatographic analysis"), computer classes. The visualization fund consists of multimedia presentations, tables, educational films, samples of medicinal plants, medicinal plant raw materials, medicinal substances for the manufacture of dosage forms and analysis, instruments and devices, reagents, chemical and laboratory utensils, forms of pharmaceutical circulation, etc. Production pharmaceutical practice is carried out on the basis of pharmacies and pharmacy warehouses of the city and region, laboratories of the State Service for Medicines and Drug Control in Ivano-Frankivsk region, pharmaceutical factory and open joint-stock company "Barva". 5 reading rooms with 300 seats are organized for students; there is a network of food facilities, a modern sports complex with a swimming pool, tennis court for physical culture and sports; the University Clinic of IFNMU functions; students are provided with a hostel. The University has approved and put into effect the Procedure for support (assistance) of persons with disabilities and other low-mobility groups, which determines the actions of employees to ensure the convenience and comfort of staying in the buildings and premises of IFNMU of this category of students https://www.ifnmu.edu.ua/images/divalnist_universitetu/navchalna_robota/nakaz/2019/nakaz_pro_malomobilhe_naselennia.pdf

Information and educational methodical support	The official website of IFNMU https://www.ifnmu.edu.ua/uk contains basic information about its activities (structure, licenses and certificates of accreditation, educational / educational-scientific / publishing activities, samples of documents on education, training and scientific structural subdivisions and their staffing, list of academic disciplines, admission rules, contact information). The University has 37 computer classes, 100% of the workplaces are provided with Internet access. 278 computers are used for the needs of the Faculty of Pharmacy which is 3 students per 1 computer. The information support is based on the use of "cloud technologies" based on Microsoft Office 365. All faculties and students of the University are 100% licensed by Microsoft OfficeProPlus, and all IFNMU computers are 100% licensed by Microsoft Windows7 Pro, Windows 10 Edu. The latest interactive learning technologies are actively introduced into the educational process of IFNMU: mixed model of learning (e-learning) on the basis of the "cloud" of the University; complex of interactive training on the basis of EDX-IFNMU; Microsoft Teams is used to conduct classes on-line (video conferencing). Electronic learning materials (virtual programs) can be used both for individual work of students and for the use of multimedia equipment in lectures, practical and seminar classes, distance learning of students. The electronic resource of the University contains educational and methodical materials on educational disciplines of the curriculum, including in the system of distance learning. The IFNMU library is provided with domestic and foreign professional periodicals of the relevant or related profile, including in electronic form and in English; the library funds are replenished annually; the library has access to databases of periodicals in English by profile. Educational and methodological support of the educational process in IFNMU consists of: - curriculum and explanatory note to it; - work programs, syllabuses, educational and methodical complex for each discipline of the curriculum; - programs of practical training, working programs of practices; banks of test tasks; methodical materials for students to all forms of current and final classes, certification of applicants.
9 – Academic mobility	
National Credit	National credit mobility is performed on the basis of the Law

Mobility	of Ukraine "On Higher Education". Recognition of the results of studying in other educational institutions of Ukraine in the framework of academic mobility in accordance with the agreements of IFNMU. Individual agreements on academic mobility for teaching and research in universities and research institutions of Ukraine are allowed. ECTS credits received in other higher education institutions of Ukraine are recalculated in accordance with the Regulations on the organization of the educational process in IFNMU https://ifnmu.edu.ua/uk/publichna-informatsiia
International Credit Mobility	International mobility, enrollment of international mobility results within the Erasmus + program is performed on the basis of the Law of Ukraine "On Higher Education", agreements between IFNMU and higher education institutions of other countries, Regulations on the organization of the educational process in IFNMU, Regulations on recalculation of academic disciplines (individual plans) and determining the academic difference in IFNMU https://ifnmu.edu.ua/uk/publichna-informatsiia
Studying of foreign applicants of higher education	Studying of foreign students is performed in accordance with the requirements of the legislation. Admission for studying is performed in accordance with the "Rules for Admission" with the passing of appropriate professional exams https://www.ifnmu.edu.ua/uk/pryimalna-komisiia/vstup-do-universytetu Studying is performed in Ukrainian, English and Russian at the request of the student.

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

2.1. List of components of educational professional program

Code of academic disciplines	Components of the educational program (academic disciplines, practical training)	Number of credits	Assessment form
1	2	3	4
OBLIGATORY COMPONENTS OF EDUCATIONAL PROGRAM			
General training			
OCG 1	Ukrainian Language (for professional orientation)	3	final module control
OCG 2	Foreign Language (for professional orientation)	3	final module control
OCG 3	History of Ukraine and Ukrainian culture	3	final module control
OCG 4	Biology with the basics of Genetics	4	final module control
OCG 5	Latin	3	final module control
OCG 6	Safety of the Health, basics of Bioethics and Biosafety	3	test
OCG 7	Training of reserve officers in the field of study «Health». Specialty "Pharmacy"	3	final module control
OCG 8	Philosophy	3	final module control
Totally		**25**	
Professional training			
OCP 9	Human Anatomy and Physiology	5	final module control
OCP 10	Biophysics with physical methods of analysis	4,5	final module control
OCP 11	Higher Mathematics and Statistics	3,5	final module control
OCP 12	Introduction to Pharmacy	3	test
OCP 13	General and Inorganic Chemistry	6	final module control
OCP 14	Ethics and Deontology in Pharmacy	3	final module control
OCP 15	Physical and Colloid Chemistry	4	final module control
OCP 16	Pathological Physiology	5	final module

			control
OCP 17	Pharmaceutical Botany	5	final module control, exam
OCP 18	Microbiology with the basics of Immunology	5	final module control
OCP 19	Organic Chemistry	8	final module control
OCP 20	Analytical Chemistry	8	final module control
OCP 21	Biological Chemistry	6	final module control, exam
OCP 22	Hygiene in Pharmacy and Ecology	3	test
OCP 23	Technology of Drug	12	final module control
OCP 24	Pharmaceutical Chemistry	13	final module control
OCP 25	Pharmacognosy	8,5	final module control, exam
OCP 26	Pharmacology	8,5	final module control
OCP 27	Pharmaceutical Law and Legislation	3	final module control
OCP 28	Extreme Medicine	3	final module control
OCP 29	Labor Protection and Labor Protection in Industry	3	test
OCP 30	Clinical Pharmacy and Pharmaceutical Care	9	final module control
OCP 31	Organization and Economics of Pharmacy	6	final module control
OCP 32	Pharmacotherapy with Pharmacokinetics	3	final module control
OCP 33	Medical Toxicology	3	final module control
OCP 34	Pharmacoeconomics	3	final module control
OCP 35	Pharmaceutical Management and Marketing	6	final module control
OCP 36	Biopharmaceutics	3	final module control
OCP 37	Technology of Medicinal Cosmetics	3	final module control
Totally		**156**	

Practical training				
EPP 38	First Premedical Aid with Introductory Medical Practice	3	final module control	
EPP 39	Educational Practice in Pharmaceutical Botany	3	final module control	
EPP 40	Educational Practice in Pharmacognosy	3	final module control	
EPP 41	Practice in Drug Technology	5	final module control	
EPP 42	Manufacturing Pharmaceutical Practice, including:	30		
	Pharmaceutical Chemistry	5,5	final module control	Exam
	Pharmacognosy	4,5	final module control	
	Organization and Economics of Pharmacy	5	final module control	
	Pharmaceutical Management and Marketing	5	final module control	
	Drug Technology	4,5	final module control	
	Clinical Pharmacy and Pharmaceutical Care	5,5	final module control	
Totally		**44**		
The total amount of required components of the educational professional program		**225**		
Blocks of elective components				
Block 1				
EC 1.1	Foreign Language	3	final module control	
EC 1.2	Foreign Language Communication		final module control	
Block 2				
EC 2.1	History of the Modern World	3	test	
EC 2.2	Logics		test	
EC 2.3	Religious Studies		test	
EC 2.4	Medical Local Lore		test	

EC 2.5	Fundamentals of the Culture of Scientific Language		test
Block 3			
EC 3.1	Bioactivity of Inorganic Compounds	3	test
EC 3.2	Valeology		test
EC 3.3	Modern Problems of Molecular Biology		test
EC 3.4	Effective and Safe Methods of Chemical Research		test
EC 3.5	Applied Genetics		test
Block 4			
EC 4.1	Fundamentals of System Analysis	3	test
EC 4.2	European Standard of Computer Literacy		test
EC 4.3	Work with Information Sources		test
Block 5			
EC 5.1	English Language for Professional Orientation	7	final module control
EC 5.2	English for Pharmacist`s Business Communication		final module control
Block 6			
EC 6.1	Psychology of Communication	3	test
EC 6.2	Fundamentals of Consumer Behavior in Pharmacy		test
EC 6.3	Professional Culture of a Pharmacist		test
EC 6.4	World Civilization and Culture		test
EC 6.5	Fundamentals of Medical Personalization		test
EC 6.6	Latin and Greek Languages in Clinical Terminology		test
Block 7			
EC 7.1	Introduction, Biology and Cultivation of Medicinal Plants	3	test
EC 7.2	Theoretical Basis of Dosage Form Technology		test
EC 7.3	Modern Analytical Laboratory Practice		test
EC 7.4	Principles of Computational Chemistry and Molecular Modeling		test
EC 7.5	Theoretical Basics of Structure and Technology Development of Cosmetics		test
EC 7.6	Fundamentals of Nanotechnology		test

Block 8			
EC 8.1	Information Technologies in Pharmacy	5	final module control
EC 8.2	Information Technologies		final module control
Block 9			
EC 9.1	Pharmaceutical Aspects of Toxicomania and Drug Addiction	3	final module control
EC 9.2	Functional Biochemistry		final module control
EC 9.3	Modern Methods of Biological Systems Studying		final module control
EC 9.4	Theoretical Basis of Synthesis		final module control
Block 10			
EC 10.1	Fundamentals of Economics	3	final module control
EC 10.2	Homeopathic Preparations		final module control
EC 10.3	Physical and Chemical Analysis in Drug Preparation		final module control
EC 10.4	Aromatology in Cosmetology and Aromatherapy		final module control
EC 10.5	Perfumery and Cosmetics		final module control
EC 10.6	Basic Principles of Rational Use of Cosmetics		final module control
Block 11			
EC 11.1	Immunoprophylaxis of Infectious Diseases	3	final module control
EC 11.2	Epidemiology of Civilization Diseases		final module control
EC 11.3	Tropical Infections		final module control
Block 12			
EC 12.1	Computer Modeling in Pharmacy	3	final module control
EC 12.2	Computer Technology in Pharmacy		final module control
Block 13			
EC 13.1	Integrated Course in Fundamental Disciplines	3	exam
EC 13.2	Integrated Course in Chemical and		Exam

	Biological Disciplines		
Block 14			
EC 14.1	Laboratory Diagnostics	3	final module control
EC 14.2	Laboratory Research in Differential Diagnosis of Internal Organs Diseases		final module control
Block 15			
EC 15.1	International Marketing in Pharmacy	4	final module control
EC 15.2	Social Interaction: Pharmacist-Doctor-Patient		final module control
EC 15.3	Fundamentals of Insurance Medicine		final module control
EC 15.4	Features of Foreign Economic Activity in Pharmaceutical Industry.		final module control
EC 15.5	Pharmacoeconomic Analysis as a Tool for Management Decisions in Health Care		final module control
EC 15.6	Side Effects of Drugs		final module control
EC 15.7	Nutrition and Bromatology		final module control
EC 15.8	Technology Perfumery and Cosmetics		final module control
EC 15.9	Intellectual Property		final module control
EC 15.10	Drug Development		final module control
EC 15.11	Aromatology in Pharmacy and Cosmetology		final module control
EC 15.12	Quality Control of Biologically Active Supplements and Food Products		final module control
EC 15.13	Foreign Language Professional Communication: English		final module control
EC 15.14	Organization of Pharmaceutical Business Abroad		final module control
Block 16			
EC 16.1	Toxicological and Forensic Chemistry	4	final module control
EC 16.2	Toxicology Chemistry and Forensic Toxicology Analysis		final module control

Block 17			
EC 17.1	Pharmaceutical and Medical Commodity	4	final module control
EC 17.2	Study of the Product Range of Pharmaceutical and Medical Institutions		final module control
Block 18			
EC 18.1	Pharmaceutical Biotechnology	3	final module control
EC 18.2	Biotechnological Processes in Drug Manufacturing		final module control
Block 19			
EC 19.1	Quality Systems in Pharmacy	3	final module control
EC 19.2	Good Pharmaceutical Practice		final module control
Block 20			
EC 20.1	Standardization of Medicines	3	final module control
EC 20.2	Pharmaceutical Analysis of Drugs		final module control
Block 21			
EC 21.1	Resource Study of Medicinal Plants	3	final module control
EC 21.2	Medicinal plants of the World Flora		final module control
Block 22			
EC 22.1	Social Pharmacy	3	final module control
EC 22.2	Social Function of Pharmaceutical Business		final module control
The total amount of elective courses		**75**	
The total amount of the educational professional program		**300**	
Non-credit components			
NCC 1	Physical Education	320 hours	Test
NCC 2	Attestation	30 hours	Unified State Qualification Examination

Form of certification of applicants of higher education

Certification of applicants of the second (master's) level of higher education in the specialty 226 "Pharmacy, Industrial Pharmacy" is performed in the form of the Unified State Qualification Examination, which includes:

- integrated test exam "Krok", which assesses the appropriateness of the quality of theoretical training of the specialist to higher education standards;
- professional English exam, which assesses the student's competence in professional English;
- an objective structured practical exam that assesses the preparation of the graduate to pursue a professional activity in accordance with the requirements of the standards of higher education by demonstrating the practical components of professional competence as close as possible to the realities of practical activity and / or in the form of master's thesis.

Qualification (master's) thesis involves generalized individual research experimental work in the specialty. Requirements for qualification (master's) work are written out in the Regulations on master's work in IFNMU.

Qualification (master's) thesis must be obligatory tested for academic plagiarism, which is performed in accordance with the Regulations on the Prevention and Detection of Academic Plagiarism at the University.

Defense of qualification (master's) thesis is presented openly and publicly.

Documents received by the graduate on the basis of successful finishing of the educational professional program

Graduates who have successfully completed the educational professional program in the preparation of masters in the specialty 226 "Pharmacy, Industrial Pharmacy" and have successfully passed the final certification of graduates, are awarded a diploma indicating "Master of Pharmacy, Industrial Pharmacy. Pharmacist".

Individuals who demonstrated high academic achievements, received at least 75% of excellent (A) grades in all educational components and practical training and grades B, C "good" in other components, as well as grades A "excellent" passed the certification of graduates, receive a master's degree in Pharmacy, Industrial Pharmacy, Pharmacist with honors.

An integral part of the master's degree in Pharmacy, Industrial Pharmacy, Pharmacist (master's degree in Pharmacy, Industrial Pharmacy, Pharmacist with honors) is a supplement to the diploma of higher education of the European standard (DIPLOMA SUPPLEMENT).

4. Matrices of correspondence of program competencies to the components of the educational professional program
4.1 Matrix of correspondence of program competencies with the obligatory components of the educational program

Educational components / Program competencies	OCG 1	OCG 2	OCG 3	OCG 4	OCG 5	OCG 6	OCG 7	OCG 8	OCP 9	OCP 10	OCP 11	OCP 12	OCP 13	OCP 14	OCP 15	OCP 16	OCP 17	OCP 18	OCP 19	OCP 20	OCP 21	OCP 22	OCP 23	OCP 24	OCP 25	OCP 26	OCP 27	OCP 28	OCP 29	OCP 30	OCP 31	OCP 32	OCP 33	OCP 34	OCP 35	OCP 36	OCP 37	EPP 38	EPP 39	EPP 40	EPP 41	EPP 42
General competencies																																										
GC 1	*	*	*	*	*	*	*		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*
GC 2	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GC 3				*	*	*	*		*		*	*	*	*	*	*	*	*	*	*		*	*	*	*	*		*	*	*		*	*			*	*	*	*	*	*	*
GC 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*
GC 5				*	*	*	*		*				*	*	*	*	*	*	*	*		*		*		*		*	*	*		*	*		*		*	*	*		*	*
GC 6	*	*		*	*	*	*		*				*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*		*	*		*		*	*	*		*	*
GC 7	*	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	*	*		*		*		*	*	*		*	*				*	*	*		*	*
GC 8	*	*	*	*	*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*		*	*			*	*	*	*		*	*
GC 9	*	*	*	*	*	*	*	*	*		*		*	*	*	*	*	*	*	*	*	*		*	*	*		*	*	*		*	*					*	*		*	*
GC 10		*	*	*	*	*	*	*	*				*	*	*	*	*	*	*	*		*	*	*		*		*	*	*		*	*		*	*	*	*	*		*	*
GC 11		*		*	*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*			*	*	*		*					*	*	*	*	*	*
GC 12			*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*			*	*	*		*		*	*	*	*	*	*		*	*
GC 13				*	*	*	*		*				*	*	*	*	*	*	*	*		*		*			*	*	*	*		*					*	*			*
GC 14				*	*	*	*		*				*	*	*		*	*	*	*		*		*				*	*	*		*					*	*			*
Professional competencies																																										
PC 1				*		*	*		*					*		*		*				*						*	*	*	*	*									*
PC 2				*	*											*		*								*				*		*	*			*	*			-	*
PC 3						*	*		*							*		*				*				*		*	*	*		*	*					*			*
PC 4										*						*		*			*			*		*				*		*	*			*	*			-	*
PC 5				*			*				*					*		*										*		*		*		*		*					*
PC 6				*	*					*						*		*			*			-																	*
PC 7										*					*	*		*				*		*			*		*		*					*	*			*	*
PC 8		*									*	*															*	*			*										*
PC 9											*																				*										*
PC 10																																			*							*
PC 11											*																				*										*
PC 12				*		*	*					*		*				*				*	*	*	*		*	*	*		*	*		*	*		*	*			*	*
PC 13	*	*		*	*	*	*		*					*				*										*		*		*					*	*			*	*
PC 14												*	*		*					*		*	*						*	*	*						*				*	*
PC 15															*			*					*													*	*				*	*
PC 16		*			*												*	*						*														*	*		*	*
PC 17	*										*																								*							*
PC 18																						*							*													
PC 19	*																	*		*			*	*	*												*				*	*
PC 20									*	*	*				*			*		*	*			*	*																*

4.2 Matrix of correspondence of program competences to elective components of the educational program

Educational components / Program competencies	EC 1	EC 2	EC 3	EC 4	EC 5	EC 6	EC 7	EC 8	EC 9	EC 10	EC 11	EC 12	EC 13	EC 14	EC 15	EC 16	EC 17	EC 18	EC 19	EC 20	EC 21	EC 22
General competencies																						
GC 1	*	*	*		*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*
GC 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GC 3			*			*	*		*	*	*		*	*	*	*		*	*	*	*	
GC 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	
GC 5			*			*	*		*	*	*		*	*	*	*		*		*	*	
GC 6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*			*	*
GC 7	*	*	*		*	*	*		*	*	*		*	*	*	*		*		*	*	
GC 8	*	*	*		*	*	*		*	*	*		*	*	*	*		*	*	*	*	
GC 9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*			*	
GC 10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*		*	*	
GC 11	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	
GC 12		*	*	*		*	*	*	*	*	*	*	*	*	*	*		*	*		*	*
GC 13		*	*			*	*		*	*	*		*	*	*	*					*	
GC 14		*	*			*	*		*	*	*		*	*	*	*					*	
Professional competencies																						
PC 1			*	*		*		*	*	*	*		*	*	*	*	*					
PC 2			*	*	*	*	*	*		*	*	*	*		*		*	*				
PC 3				*				*			*		*		*							
PC 4				*			*	*	*	*	*	*	*	*	*			*	*			
PC 5			*	*	*			*		*	*	*	*	*	*				*			
PC 6			*			*			*		*	*	*		*	*						
PC 7				*	*		*	*		*	*	*	*		*		*	*	*	*	*	
PC 8	*			*	*			*			*	*										
PC 9				*		*		*			*	*										*
PC 10				*			*	*				*										
PC 11				*				*			*	*			*							*
PC 12			*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PC 13	*	*	*	*	*	*	*	*		*	*	*	*	*	*			*				
PC 14			*	*			*	*	*	*	*	*	*		*				*			
PC 15							*	*	*	*	*	*	*		*			*	*	*		
PC 16	*			*	*	*					*	*	*								*	
PC 17		*		*				*			*	*			*							
PC 18				*				*			*	*			*				*			
PC 19		*	*	*			*	*	*	*	*		*		*			*	*	*		
PC 20			*	*			*		*	*	*	*	*		*				*	*	*	

5. Matrices for providing program results of studying (PRS) with the relevant components of the educational professional program

5.1 Matrix for providing program results of studying (PRS) with obligatory components of the educational professional program

Educational components / Program competencies	OCG 1	OCG 2	OCG 3	OCG 4	OCG 5	OCG 6	OCG 7	OCG 8	OCP 9	OCP 10	OCP 11	OCP 12	OCP 13	OCP 14	OCP 15	OCP 16	OCP 17	OCP 18	OCP 19	OCP 20	OCP 21	OCP 22	OCP 23	OCP 24	OCP 25	OCP 26	OCP 27	OCP 28	OCP 29	OCP 30	OCP 31	OCP 32	OCP 33	OCP 34	OCP 35	OCP 36	OCP 37	EPP 38	EPP 39	EPP 40	EPP 41	EPP 42
PRS 1	*		*	*		*	*	*	*		*	*	*	*	*	*		*	*	*		*	*	*	*		*	*	*	*	*	*		*			*			*	*	*
PRS 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*		*	*	*	*
PRS 3				*		*	*		*			*	*	*	*	*		*	*	*		*	*	*	*			*	*	*	*	*					*			*	*	*
PRS 4	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*		*	*	*	*
PRS 5		*		*	*	*	*		*				*		*	*		*	*	*				*	*			*		*	*	*								*	*	*
PRS 6				*		*	*		*				*	*	*	*		*	*	*		*	*	*	*		*	*	*	*		*					*			*	*	*
PRS 7	*	*		*	*	*	*		*	*			*	*	*	*		*	*	*				*	*			*		*		*				*	*			*	*	*
PRS 8	*	*		*	*	*	*		*				*	*	*	*		*	*	*	*		*	*	*		*	*		*	*	*					*			*	*	*
PRS 9		*		*	*	*	*		*		*		*	*	*	*		*	*	*	*			*	*		*	*		*	*	*					*			*	*	*
PRS 10	*	*		*	*	*	*		*				*	*	*	*		*	*	*		*		*	*			*	*	*		*			*					*		*
PRS 11				*		*	*		*	*	*		*	*	*	*	*		*	*				*	*			*		*		*							*	*		*
PRS 12				*		*	*		*	*	*		*	*	*	*	*	*	*	*		*	*	*	*			*	*	*		*		*		*	*	*	*	*	*	*
PRS 13				*		*	*						*	*		*		*				*						*	*	*		*										*
PRS 14				*	*											*		*						*		*				*			*			*						*
PRS 15						*	*									*		*				*			*	*		*	*	*		*	*				*					*
PRS 16				*					*	*						*		*			*			*						*		*				*					*
PRS 17				*			*		*	*	*											*			*			*	*	*		*		*							*
PRS 18				*						*								*			*	*							*													
PRS 19						*	*								*			*	*			*	*	*	*			*	*		*					*	*			*	*	*
PRS 20						*	*				*														*			*														
PRS 21							*				*																			*											*
PRS 22																																			*								*
PRS 23						*					*							*												*											*
PRS 24				*		*	*					*						*	*			*	*	*			*	*	*	*	*				*		*	*			*	*
PRS 25		*		*		*	*		*									*				*						*	*	*	*				*							*
PRS 26						*						*	*		*				*	*			*														*			*	*	*
PRS 27																							*														*			*	*	*
PRS 28		*			*												*	*							*													*	*			*
PRS 29																																			*								*
PRS 30																		*					*	*													*				*	*
PRS 31																		*	*				*	*													*				*	*
PRS 32									*	*	*				*			*	*	*			*	*	*												*				*	*

5.2 Matrix for providing program results of studying (PRS) with elective components of educational professional program

Educational components / Program competencies	EC 1	EC 2	EC 3	EC 4	EC 5	EC 6	EC 7	EC 8	EC 9	EC 10	EC 11	EC 12	EC 13	EC 14	EC 15	EC 16	EC 17	EC 18	EC 19	EC 20	EC 21	EC 22
PRS 1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRS 2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*
PRS 3			*	*		*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	
PRS 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*
PRS 5	*		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	
PRS 6			*	*		*	*	*	*	*	*	*	*	*	*	*		*			*	
PRS 7	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*		*		*	*	
PRS 8	*	*	*		*	*	*	*	*	*	*		*	*	*	*	*	*		*	*	*
PRS 9	*		*	*	*	*	*	*	*	*	*		*	*	*	*	*	*		*	*	*
PRS 10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*				*	*	
PRS 11			*	*			*	*	*	*	*	*	*	*	*	*				*	*	
PRS 12			*	*			*	*	*	*	*	*	*	*	*	*		*		*	*	
PRS 13			*	*				*	*	*	*		*	*	*	*						
PRS 14			*	*	*	*	*	*	*	*	*	*	*	*	*					*		
PRS 15				*				*	*		*		*	*	*	*						
PRS 16			*	*	*		*		*	*	*	*	*	*	*	*				*		
PRS 17			*	*	*			*	*	*	*	*		*	*	*			*			
PRS 18			*						*		*	*	*		*	*				*		
PRS 19				*	*		*	*	*	*	*	*	*		*		*	*	*	*	*	
PRS 20				*				*				*	*									
PRS 21				*				*				*										
PRS 22				*				*				*										
PRS 23				*				*			*	*	*		*							*
PRS 24			*	*				*	*	*	*	*	*	*	*	*		*	*	*	*	
PRS 25	*		*	*	*			*		*	*	*	*		*		*					
PRS 26			*	*			*	*	*	*		*	*		*							
PRS 27				*			*	*	*	*		*			*			*		*		
PRS 28	*			*	*	*	*					*	*									
PRS 29				*				*			*	*			*							
PRS 30				*				*		*	*	*	*		*			*	*	*	*	
PRS 31			*	*				*	*	*	*	*	*		*			*	*	*	*	
PRS 32				*			*	*	*	*		*	*		*	*		*	*	*	*	

6. Requirements for the availability of a system of internal quality assurance of higher education

In accordance with the Law of Ukraine "On Higher Education", the University has developed and implemented an internal quality assurance system based on the principles set out in the "Standards and Recommendations on Quality Assurance in the European Higher Education Area" of the European Association for Higher Education Quality and National Standards of Ukraine "Quality Management Systems" National Standards of Ukraine ISO 9001:2015.

The quality management system of IFNMU is confirmed by a certificate for the provision of services in the field of higher education at the university level and in the field of health National Standards of Ukraine ISO 9001: 2015 (No.UA MQ. 048-167-17 on 12.06.2017). In 2018, 2019, the University passed scheduled external supervisory audits and received confirmation that the quality management system of IFNMU complies with the current certificate with international recognition.

The main ways and means of implementation of the quality of education at IFNMU:

- formation of educational programs exclusively on the basis of competence, transition to a pan-European understanding of the content of education in the field of health care;
- monitoring the development trends of the world educational and scientific space in order to respond in a timely manner to global challenges, changes in conditions and circumstances in the market of educational services, the introduction of new technologies;
- orientation of educational programs to the needs of educational and medical institutions, institutions of practical health care by involving them in the educational process;
- creation and implementation of intensive personality-oriented learning technologies (individualization of learning);
- introduction of remote technologies in the educational process;
- promoting students' implementation of communicative competence in a foreign language at the required level;
- expanding the University's participation in international programs of academic mobility of students, research and teaching staff;
- integration with educational institutions of different levels and medical institutions;
- involvement of representatives of employers and leading specialists in the formation of the content of educational programs, to participate in the educational process and certification of graduates;
- providing appropriate conditions for practical training of students;
- marketing of educational services and preparation of suggestions for the introduction of new educational programs, systematic analysis of employment and career growth of graduates;
- improving the system of measures aimed at improving the objectivity of student assessment;
- control of feedback procedures between the participants of the educational process as a necessary system-forming component of the process of quality assurance in

higher education in the field of 22 "Health";
- creation of organizational and technical conditions and means of assessment by graduates of previous years of the quality of the educational process;
- continuous improvement of the system of monitoring and implementation the quality of training of higher education applicants;
- introduction of a system for evaluating the effectiveness of research and teaching staff in the implementation of educational programs;
- participation in activities to ensure the formation of a positive reputation of the institution;
- approval and implementation of advanced training programs for research and teaching staff at the University and abroad.

Monitoring and periodic review of educational programs

The review of educational programs is based on the results of the monitoring. The criteria for reviewing educational programs are formulated both as a result of feedback from external and internal stakeholders and as a result of prognosis of the development of the industry and the needs of society. Educational programs are reviewed and re-approved at least once a year, usually before the start of a new academic year.

Annual assessment of applicants of higher education

The annual assessment of applicants of higher education is made in accordance with the Regulations on the organization of the educational process at IFNMU and is posted on the University website.

Advanced training of scientific – pedagogical workers and teaching staff

Advanced training and internships of scientific – pedagogical workers and teaching staff is done in accordance with the regulations of Ukraine and the Regulations on professional development of scientific – pedagogical workers and teaching staff of IFNMU.

The results of advanced training are taken into account in the rating assessment of the activities of scientific – pedagogical workers and teaching staff. The rating of teachers at the University is covered at the meetings of the Academic Council, the Rector's Office and brought to the attention of the departments.

Publicity of information about educational programs, degrees of higher education and qualifications

The official website of the University contains information that is subject to obligatory publication in accordance with the requirements of the Law of Ukraine "On Higher Education", "On Access to Public Information"(https://www.ifnmu.edu.ua/uk).

Prevention and detection of academic plagiarism

Prevention of plagiarism in the academic environment is regulated by the "Regulations on the detection and prevention of academic plagiarism at the University"

(https://www.ifnmu.edu.ua/images/diyalnist_universitetu/naukova_robota/komisiya_plagiatu/Pologennya).

7. References

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15. Methodical recommendations for the development of standards of higher education // Order of the Ministry of Education and Science of Ukraine dated 01.06.2017 №600 (in the editorial office of the order of the Ministry of Education and Science of Ukraine dated 21.12.2017 №1648). -
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16. Recommendations of the National Agency for Quality Assurance in Higher Education regarding the introduction of an internal quality assurance system (decision of National Agency for Quality Assurance in Higher Education protocol on June 26, 2019 № 6) https://naqa.gov.ua/2019/07/%d1%80%d0%b5%d0%ba%d0%be%d0%bc%d0%b5%d0%bd%d0%b4%d0%b0%d1%86%d1%96%d1%97-%d0%bd%d0%b0%d1%86%d1%96%d0%be%d0%bd%d0%b0%d0%bb%d1%8c%d0%bd%d0%be%d0%b3%d0%be-%d0%b0%d0%b3%d0%b5%d0%bd%d1%82%d1%81%d1%82%d0%b2/

17. Recommendations for higher education institutions on the development and implementation of a university system to ensure academic integrity (protocol № 11 decision of National Agency for Quality Assurance in Higher Education on October 29, 2019) https://naqa.gov.ua/wp-content/uploads/2019/10/%d0%a0%d0%b5%d0%ba%d0%be%d0%bc%d0%b5%d0%bd%d0%b4%d0%b0%d1%86%d1%96%d1%96%cc%88-%d0%97%d0%92%d0%9e-%d1%81%d0%b8%d1%81%d1%82%d0%b5%d0%bc%d0%b0-%d0%b7%d0%b0%d0%b1%d0%b5%d0%b7%d0%bf%d0%b5%d1%87%d0%b5%d0%bd%d0%bd%d1%8f-%d0%b0%d0%ba%d0%b0%d0%b4%d0%b5%d0%bc%d1%96%d1%87%d0%bd%d0%be%d1%96%cc%88-%d0%b4%d0%be%d0%b1%d1%80%d0%be%d1%87%d0%b5%d1%81%d0%bd%d0%be%d1%81%d1%82%d1%96.pdf