

PRIVATE ESTABLISHMENT OF HIGHER EDUCATION  
DNIPRO INSTITUTE OF MEDICINE AND PUBLIC HEALTH



APPROVED BY  
ACADEMIC COUNCIL OF THE  
PEHE «DNIPRO INSTITUTE OF MEDICINE  
AND PUBLIC HEALTH»

Academic Council's decision №2 dated 17th October, 2018

Head of the Academic Council – Rector

\_\_\_\_\_ T. LESHCHEVA

The Study Program implemented on 1st 01.09.2019 p.

Rector \_\_\_\_\_ T. LESHCHEVA

(order №03/1 dated 18th October, 2018)

## STUDY PROGRAM «MEDICINE»

<b>LEVEL OF HIGHER EDUCATION</b>	<b><u>Second (Master's)</u></b>
<b>DEGREE OF HIGHER EDUCATION</b>	<b><u>Master</u></b>
<b>FIELD OF KNOWLEDGE SPECIALTY</b>	<b><u>22 Healthcare 222 "Medicine"</u></b>
<b>EDUCATIONAL QUALIFICATION</b>	<b><u>Master of Medicine</u></b>
<b>PROFESSIONAL QUALIFICATION</b>	<b><u>Doctor of Medicine</u></b>
<b>MODE OF STUDY</b>	<b><u>Full-Time</u></b>

Dnipro, 2020

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## 1. PREFACE

The Doctor of Medicine Study Program defines the prerequisites for the student's enrollment, the duration of study and content of training, the list of educational components and their logical sequence, the number of ECTS credits required to complete the program, forms of Attestation of students and graduates, as well as a list of general and professional competencies and program learning outcomes.

The program was developed by the project team in accordance with the requirements of the Law of Ukraine "On Higher Education", Directive 2013/55/ EU of the European Parliament and of the Council of 11/20/2013 and WFME Global Standards for Quality improvement: Basic Medical Education, WFME Global Standards for Quality improvement: Postgraduate Medical Education and WFME Global Standards for Quality improvement: Continuous Professional Development. Due to the unavailability of the national standard of higher education in specialty 222 "Medicine" for the second (master's) level of higher education at the current moment, the mentioned above documents were used while developing this Study Program.

Guarantor of the Study Program Rector of the Institute Dr. Tetiana Leshcheva -Doctor of Medical Sciences, Professor is responsible for the implementation of the Study Program and quality assurance.

### **The Study Program developers:**

Tetiana Leshcheva – Doctor of Medical Sciences, Professor, project team leader, MD;

Olga Dniprova – PhD, Associate Professor, MD;

Oleksandr Romanenko – PhD, Associate Professor, MD;

Vitalii Sipitii – Doctor of Medical Sciences, Professor

Valentyna Kaluzhna – , Associate Professor, MD;

Valerii Slobodkin – PhD, Associate Professor, MD;

Petro Bachynskii – Doctor of Medical Sciences, Professor

Kostyantyn Litvinenko – PhD, Associate Professor, MD;

Dmytro Iershov – PhD, Associate Professor, MD.

The Study program “Medicine” is approved by the Academic Council of the Private Establishment of Higher Educational "Dnipro Institute of Medicine and Public Health".

Academic Council's decision № 2, dated 17th October, 2018.

**Launched** in 2019/2020 academic year.

### **Amendments to the Study Program:**

Academic Council's Decision № 3/1, dated 30th May, 2019.

Academic Council's Decision № 4, dated 20th May, 2020.

## **EXTERNAL APPROBATION**

**Dr. Yuriy Vdovychenko**

Doctor of Medical Sciences, Professor, Vice-Rector of the P. Shupyk  
National Medical Academy of Postgraduate Education

**Dr. Hennadii Rozhkov**

Doctor of Medical Sciences, Professor of the Department of General  
Hygiene of Ukrainian Military Medical Academy

## LIST OF ABBREVIATIONS USED

NQF - National Qualifications Framework;

SP – Study Program;

PC - professional competencies;

GC - general competencies;

PLO - program learning outcomes;

CTEA – Classification of the Types of Economic Activities.

### **Codes:**

OK - compulsory educational component;

BK - optional educational component.

## 2. THE STUDY PROGRAM PROFILE

<b>1 – General information</b>	
<b>Full name of the higher educational establishment and structural subdivision</b>	Private Establishment of Higher Education “Dnipro Institute of Medicine and Public Health”
<b>Degree of higher education</b>	Master’s Degree
<b>Professional qualification</b>	Doctor of Medicine
<b>Educational qualification</b>	Master of Medicine
<b>The official name of the Study Program</b>	Medicine
<b>Type of diploma and scope of Study Program</b>	Master's Diploma, single type, 360 ECTS credits.
<b>Duration of study</b>	<p>Students enrol:</p> <ul style="list-style-type: none"> <li>- to the 1<sup>st</sup> year of study on the basis of complete general secondary education (duration of study – 5 years and 10 months (12 semesters);</li> <li>- to the 2<sup>nd</sup> year of study on the basis of qualification level of Junior Specialist /Junior Bachelor (duration of study – 4 years 10 months (10 semesters). In this case only 30 previously awarded ECTS credits are recognized and transferred.</li> </ul>
<b>Awarding of Degree and Professional Qualification</b>	<p>Students who have successfully passed all types of Attestation are awarded the “Master's Degree in Medicine” and the appropriate professional qualification of “Doctor of Medicine” based on the decision of the Examination Commission and are granted the diploma of higher education.</p> <p>A student who have received an unsatisfactory grade or been admitted to the Attestation, but for any reason did not pass the Attestation, are expelled from the KHIM. Afterwards, a student has the right to repass the Attestation not earlier than in one year during the next three years. Academic Transcript is issued for such a student upon request.</p>
<b>Accreditation</b>	To be accredited to the 1 <sup>st</sup> time

<b>Cycle / level</b>	National Qualification Framework of Ukraine (NQF) - level 8; Qualifications Framework in the European Higher Education Area - second cycle; European Qualification Framework for Lifelong Learning – level 7
<b>Prerequisites for enrolment</b>	Ukrainian citizens are admitted based on: - complete general secondary education and the external independent assessment; - previously gained educational qualification level of Junior Specialist or Junior Bachelor and based on the results of external independent assessment and professionally based exam (upon admission to the 2 <sup>nd</sup> year of study).  For foreign citizens and stateless persons, admission is based on complete general secondary education and the results of two entrance exams: language proficiency exam (Ukrainian or English) and chemistry exam.
<b>Languages of study</b>	Ukrainian or English
<b>Term of validity of the Study Program</b>	Till the end of 2023/2024 study year
<b>Web-address of the permanent placement of the Study Program</b>	<a href="http://dimh.kmu.edu.ua/study-programs/">http://dimh.kmu.edu.ua/study-programs/</a>
<b>2 – The aim of the study program</b>	
Training of highly qualified specialists in medicine and promoting the development of public health in Ukraine, based on the principles of evidence-based medicine, taking into account world experience and the principles of Euro-Atlantic integration in the field of healthcare. Upon completion of the Study Program graduates must be able to perform organizational, diagnostic, medical and research activities in Healthcare institutions, in compliance with national and international standards.	
<b>3 – Peculiarities (specifications) of the Study Program</b>	
<b>Level of higher education:</b>	Second (Master's)
<b>Degree of higher education</b>	Master
<b>Field of knowledge</b>	22 "Healthcare"
<b>Specialty</b>	222 "Medicine"
<b>Mode of study</b>	Full-Time
<b>Orientation of the Study Program</b>	The Study Program is professionally and practically oriented.
<b>The main focus of the Study Program</b>	The main focus of the first three years of study are: - <b>Basic biomedical sciences</b> , which consist of the fundamental educational components aimed at understanding and application of clinical science; - <b>Behavioural and Social Sciences</b> educational components ensures

	<p>mastering of the competencies consolidated in the following domains:</p> <ul style="list-style-type: none"> <li>- Mind – body interactions in health and disease;</li> <li>- Patient behavior;</li> <li>- Physician role and behavior;</li> <li>- Physician – patient interactions;</li> <li>- Social and cultural issues in Healthcare;</li> <li>- Health policy and economics.</li> </ul> <p>The main focus of IV-VI years of study is mastering the <b>Clinical sciences</b> which include the knowledge and related professional skills required for the student to assume appropriate responsibility for patient care after graduation.</p>																											
<b>Modularization</b>	<p>The full scope of the SP "Medicine" is 360 ECTS Credits, 75 % of which (270 ECTS Credits) are allotted for compulsory ECs and 25% (90 ECTS Credits) are allotted for optional ECs. Such distribution is stipulated in the Law of Ukraine "On higher education" that requires that not less than 25% out of the total ECTS Credits of the program should be provided as optional ECs. Totally the SP comprises 108 ECs, 55 of which are compulsory and 53 are optional. The duration of EC varies from 1 to 6 semesters. Optional EC are divided into 24 blocks. Students are required to pick one optional EC of each block during studies. Both compulsory and optional EC are awarded with ECTS Credits.</p> <p>The SP "Medicine" is structured in two phases:</p> <ol style="list-style-type: none"> <li><b>1. Preclinical Phase includes:</b> <ol style="list-style-type: none"> <li>a. Basic Biomedical Sciences Training (13 compulsory EC covering 92 ECTS Credits);</li> <li>b. Behavioral and Social Sciences Training (8 compulsory EC and 6 optional blocks, covering 58 ECTS Credits).</li> </ol> </li> <li><b>2. Clinical Phase includes:</b> <ol style="list-style-type: none"> <li>a. Clinical Sciences Training (36 compulsory EC and 18 optional blocks, covering 200 ECTS Credits);</li> <li>b. Clinical Practice and Clerkships (18 ECTS Credits).</li> </ol> </li> </ol> <table border="1" data-bbox="528 1496 1522 2018"> <thead> <tr> <th>Phase</th> <th>Cycle</th> <th>Quantity of Compulsory ECs</th> <th>Quantity of Blocks with Optional ECs</th> <th>Number of ECTS Credits</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Preclinical</td> <td>Basic Biomedical Sciences</td> <td>13</td> <td rowspan="2">6</td> <td>92</td> </tr> <tr> <td>Behavioral and Social Sciences</td> <td>8</td> <td>58</td> </tr> <tr> <td rowspan="2">Clinical</td> <td>Clinical Sciences</td> <td>16</td> <td>18</td> <td>192</td> </tr> <tr> <td>Clinical Practice and Clerkship</td> <td>4</td> <td>-</td> <td>18</td> </tr> <tr> <td><b>Total:</b></td> <td></td> <td><b>57</b></td> <td><b>24</b></td> <td><b>360</b></td> </tr> </tbody> </table>	Phase	Cycle	Quantity of Compulsory ECs	Quantity of Blocks with Optional ECs	Number of ECTS Credits	Preclinical	Basic Biomedical Sciences	13	6	92	Behavioral and Social Sciences	8	58	Clinical	Clinical Sciences	16	18	192	Clinical Practice and Clerkship	4	-	18	<b>Total:</b>		<b>57</b>	<b>24</b>	<b>360</b>
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<b>Features of the</b>	Features of the Study Program are student-centered and case-																											



<b>Study Program</b>	<p>based learning approach with use of cutting-edge digital technologies.</p> <p>Training is carried out in small groups and linked to the principles of evidence-based medicine.</p> <p>In addition, Study Program includes the possibility of international clerkships, learning of foreign languages and advantage of international mobility, as well as mobility within Institutions of Medical Academic Consortium.</p> <p>Another feature of the Study Program is Individual Learning Pathway, which is a route taken by a learner allowing him/her to build knowledge progressively and acquire the desired set of competences. The Learning Pathway may be ‘signposted’ through institution guidance and regulations (including the recognition of prior learning and experience) and different learning pathways may lead to the award of the same qualification. In essence the concept of a ‘learning pathway’ emphasises the choice of the student in reaching the desired educational goals.</p> <p>Optional educational components provides student with a possibility to deepen professional knowledge within Study Program and achieve additional professional competencies.</p>
<b>Suitability of graduates to employment and further training</b>	
<b>Suitability for employment (professional rights of graduates)</b>	<p>Upon successful completion of the Study Program “Medicine” with the professional qualification the Doctor of Medicine:</p> <p>Ukrainian graduates are able to work on the following positions (according to the Ukrainian Classifier of Professions ДК 003: 2010):</p> <ul style="list-style-type: none"> <li>● Intern doctor</li> <li>● Trainee doctor</li> <li>● Resident doctor</li> </ul> <p>According to the National Classification of Economic Activities (NCEA), a graduate may work in institutions (or as a self-employed person) according to the following NCEA codes ДК 009: 2010:</p> <ul style="list-style-type: none"> <li>● 86.10 - Operating of hospitals</li> <li>● 86.21 - General medical care</li> <li>● 86.90 - Other healthcare activities</li> </ul> <p>In addition, the Doctor of Medicine can work in Healthcare facilities, research institutes, higher education institutions and international organizations operating in the field of Healthcare and public health.</p> <p>- Foreign citizens after graduation can carry out further practical activity only after obligatory fulfilment of postgraduate education and licensing in accordance with the regulations of certain country where they aim to pursue the Healthcare career.</p>

<b>Further training (academic rights of graduates)</b>	<p>Upon successful completion of the Study Program “Medicine” with the professional qualification the Doctor of Medicine further training is available in the form of:</p> <ul style="list-style-type: none"> <li>-Postgraduate Education programs - Internship, Residency in various specialties;</li> <li>-Higher Education programs - PhD training in various specialties.</li> </ul>
<b>5 – Teaching and Assessment</b>	
<b>Teaching and Learning</b>	<p>The teaching process is competency-oriented, student-centred, problem-oriented with application of research learning, aiming at preparing students for clinical practice, through the use of clinical cases. It is focused on the acquisition of basic professional competencies by the student.</p> <p>Educational approaches at all levels of educational process can be:</p> <ul style="list-style-type: none"> <li>• Individual;</li> <li>• Group;</li> <li>• Collective;</li> <li>• Research</li> </ul> <p>And are implemented via:</p> <ul style="list-style-type: none"> <li>- classes (lectures, seminars, practical classes, tutorials);</li> <li>- self-directed learning (self-education of particular topics of educational components defined by faculty staff);</li> <li>- practical training (traineeship, clerkships, research work, learning at bedside);</li> </ul> <p>Digital technologies are utilized while performing all abovementioned types of classes.</p>
<b>Assessment</b>	<p>Student’s performance assessment is carried out using European credit transfer system (ECTS).</p> <p>Study results and assessment criteria are determined separately for each educational component of the Study Program.</p> <p>Students are awarded credits only for those educational components, on which all planned learning outcomes are reached, all necessary assignments are completed and a particular form of final control is passed.</p> <p>Assessment methods:</p> <ul style="list-style-type: none"> <li>- Ongoing assessment, which is carried out during practical, laboratory, seminar classes and reflects the current progress in achieving of learning outcomes;</li> <li>- Final assessment, that reflects if a student has achieved Program Learning Outcomes of the particular educational component (for the internal final assessment) and of the whole Study Program (for the external final assessment).</li> </ul> <p><b>Internal</b> final assessment is carried out in three forms: differentiated credit, credit or exam;</p> <p><b>External</b> final assessment is carried out in the form of Unified State Qualification Examination (USQE), which consists of:</p> <p><i>After 3rd year of study:</i></p> <ul style="list-style-type: none"> <li>- KROK-1 exam;</li> <li>- English for professional purposes exam</li> </ul> <p><i>After 6th year of study:</i></p>

	<ul style="list-style-type: none"> <li>- KROK-2 exam;</li> <li>- Objective Structured Clinical (Practical) Examination.</li> </ul>																											
<b>Grading Scale</b>	<table border="1"> <thead> <tr> <th style="text-align: center;">University grading scale</th> <th style="text-align: center;">ECTS grade</th> <th style="text-align: center;">Descriptor</th> <th style="text-align: center;">Awarding of credits</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">180 - 200</td> <td style="text-align: center;">A</td> <td style="text-align: center;">Excellent</td> <td rowspan="5" style="text-align: center;">Passed</td> </tr> <tr> <td style="text-align: center;">170 - 179</td> <td style="text-align: center;">B</td> <td style="text-align: center;">Very Good</td> </tr> <tr> <td style="text-align: center;">160 - 169</td> <td style="text-align: center;">C</td> <td style="text-align: center;">Good</td> </tr> <tr> <td style="text-align: center;">141 - 159</td> <td style="text-align: center;">D</td> <td style="text-align: center;">Satisfactory</td> </tr> <tr> <td style="text-align: center;">120 - 140</td> <td style="text-align: center;">E</td> <td style="text-align: center;">Sufficiently</td> </tr> <tr> <td style="text-align: center;">100 - 119</td> <td style="text-align: center;">Fx</td> <td style="text-align: center;">Unsatisfactory with possible re-passing of final assessment</td> <td rowspan="2" style="text-align: center;">Failed</td> </tr> <tr> <td style="text-align: center;">&lt;100</td> <td style="text-align: center;">F</td> <td style="text-align: center;">Unsatisfactory with the mandatory repeated study of EC</td> </tr> </tbody> </table>	University grading scale	ECTS grade	Descriptor	Awarding of credits	180 - 200	A	Excellent	Passed	170 - 179	B	Very Good	160 - 169	C	Good	141 - 159	D	Satisfactory	120 - 140	E	Sufficiently	100 - 119	Fx	Unsatisfactory with possible re-passing of final assessment	Failed	<100	F	Unsatisfactory with the mandatory repeated study of EC
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<b>6 – Program Competencies</b>																												
<b>IC (Integrated Competencies)</b>	<p>Ability to:</p> <p><b>IC 1.</b> Ability to integrate knowledge to solve typical and complex specialized problems;</p> <p><b>IC 2.</b> Ability to solve practical problems in medical sphere applying the provisions, theories and methods of basic biomedical sciences, behavioral and social sciences and clinical sciences;</p> <p><b>IC 3.</b> Ability to deal with an uncertainty and adapt to new situations.</p>																											
<b>GC (General Competencies)</b>	<p><b>GC 1.</b> Ability to demonstrate knowledge of established and evolving biomedical, clinical, social and behavioral sciences, as well as the application of this knowledge to a patient care;</p> <p><b>GC 2.</b> Ability to demonstrate the qualities required to sustain lifelong personal and professional growth;</p> <p><b>GC 3.</b> Interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals;</p> <p><b>GC 4.</b> Ability to communicate in the native and foreign language both orally and in writing;</p> <p><b>GC 5.</b> Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles;</p> <p><b>GC 6.</b> Ability to act socially responsible and demonstrate compassion, integrity, and respect for others;</p> <p><b>GC 7.</b> Ability to follow the principles of ecological safety and resolve issues linked to the ecological consequences of professional activities.</p>																											
<b>PC (Professional competencies)</b>	<p><b>PC 1.</b> Ability to carry out a consultation with a patient;</p> <p><b>PC 2.</b> Ability to assess clinical presentations, order investigations, make differential diagnoses, and negotiate a management plan;</p> <p><b>PC 3.</b> Ability to provide immediate care of medical emergencies, including First Aid and resuscitation;</p> <p><b>PC 4.</b> Ability to prescribe drugs;</p> <p><b>PC 5.</b> Ability to carry out practical procedures;</p> <p><b>PC 6.</b> Ability to communicate effectively in a medical context;</p> <p><b>PC 7.</b> Ability to apply ethical and legal principles in medical practice;</p> <p><b>PC 8.</b> Ability to assess psychological and social aspects of a</p>																											

	<p>patient's illness;</p> <p><b>PC 9.</b> Ability to apply the principles, skills and knowledge of evidence-based medicine;</p> <p><b>PC 10.</b> Ability to use information and information technology effectively in a medical context;</p> <p><b>PC 11.</b> Ability to apply scientific principles, method and knowledge to medical practice and research;</p> <p><b>PC 12.</b> Ability to promote health, engage with population health issues and work effectively in a Healthcare system;</p> <p><b>PC 13.</b> Ability to determine the tactics of physiological pregnancy care, childbirth care and the postpartum period;</p> <p><b>PC 14.</b> Ability to ensure the quality and safety of medical care;</p> <p><b>PC 15.</b> Ability to organize medical and evacuation activities during the emergency and combat operations, including in the field.</p>
<b>7 – Program Learning Outcomes</b>	
<b>PLO (Program Learning Outcomes)</b>	<b>PLO1</b> To work as a team player, ensuring effective communication in an interdisciplinary and multicultural environment.
	<b>PLO2</b> To evaluate the impact of the environment on the state of health of the population in the conditions of a medical institution by standard methods. Determine the current sanitary and hygienic condition of the environment.
	<b>PLO3</b> To collect anamnesis, carry out physical examination, evaluate mental, psychomotor and physical state of the patient.
	<b>PLO4</b> Identify and determine the leading clinical symptoms and syndromes (according to the list 1), determine the preliminary diagnosis of the disease (according to the list 2).
	<b>PLO5</b> Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
	<b>PLO6</b> Provide the patients and their relatives with explanation and advice, reassurance and support.
	<b>PLO7</b> Recognize and assess the severity of clinical presentations.
	<b>PLO8</b> Assign investigation methods (according to the list 4) and interpret the obtained results.
	<b>PLO9</b> Carry out differential diagnostics.
	<b>PLO10</b> To determine the principles and methods of providing medical care to patients with diseases (according to the list 2) in inpatient and outpatient conditions in accordance with the unified medical care clinical protocols.
	<b>PLO11</b> Provide qualified medical care, psychological and social support to patients in the terminal stages of the disease, as well as their family members.
	<b>PLO12</b> Provide appropriate management for chronic illness. Manage Work Capability Assessment.
	<b>PLO13</b> Recognize and assess acute medical emergencies (according to the list 3).
	<b>PLO14</b> Determine tactics and provide immediate care of medical emergencies, including First Aid and resuscitation (according to

	the list 3).
	<b>PLO15</b> To provide basic life support and cardio-pulmonary resuscitation according to current European guidelines.
	<b>PLO16</b> Be able to provide advanced life support according to current European guidelines.
	<b>PLO17</b> Match appropriate drugs and other therapies to the clinical context, prescribe drugs clearly and accurately.
	<b>PLO18</b> Review the appropriateness of drug and other therapies and evaluate potential benefits and risks.
	<b>PLO19</b> Perform medical procedures and manipulations (according to the list 5).
	<b>PLO20</b> Communicate effectively with colleagues, patients, families, disabled people and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
	<b>PLO21</b> Use oral and writing communication in state and foreign languages in professional activities.
	<b>PLO22</b> Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations.
	<b>PLO23</b> Be able to certify death and request autopsy.
	<b>PLO24</b> To conduct professional activities in compliance with the civil rights, freedoms and obligations; apply national and European law to clinical care.
	<b>PLO 25</b> Assess the impact of psychological and socio-economic factors on the health of the individual, family and the general population.
	<b>PLO26</b> Detect stress in relation to illness, detect alcohol and substance abuse and other dependency.
	<b>PLO27</b> Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based Healthcare.
	<b>PLO28</b> To conduct an independent data research, analysis and synthesis from various sources, critically appraise medical literature and use obtained results in professional activity.
	<b>PLO29</b> Use information and information technology effectively in a medical context, keep accurate and complete clinical records in compliance with national legislation and local regulations.
	<b>PLO30</b> To apply cutting-edge IT and digital technologies in professional activities.
	<b>PLO31</b> To apply scientific principles, methods and knowledge to medical practice and research.
	<b>PLO32</b> Provide patient care which minimizes the risk of harm to patients.
	<b>PLO33</b> Apply measures to prevent the spread of infection.
	<b>PLO34</b> Screen for infectious disease and disease surveillance.
	<b>PLO35</b> Promote health, engage with population health issues and cooperate effectively with Healthcare system stakeholders.

	<p><b>PLO36</b> Analyze strategies, politics and interventions in the public health sphere and propose measures aimed at increasing the effectiveness of financing from various sources, including the National Health Service of Ukraine.</p> <p><b>PLO 37</b> Know the organizational principles of providing medical services under the program of state guarantees of medical care in Ukraine.</p> <p><b>PLO38</b> Know the basics of marketing and tools for promoting medical services in the market.</p> <p><b>PLO39</b> Plan activities for own continuous professional development and design a personal educational portfolio.</p> <p><b>PLO40</b> Depending on the nature and severity of the disease, prescribe the optimal mode of activity and determine the plan of rehabilitation of patients.</p> <p><b>PLO41</b> Determine the plan and tactics of physiological pregnancy care, physiological childbirth care and the postpartum period.</p> <p><b>PLO42</b> Ensure the quality and safety of Healthcare.</p> <p><b>PLO43</b> To organize medical and evacuation activities during the emergency and combat operations, including in the field.</p>
<b>8 – Resources for program implementation</b>	
<b>Staffing</b>	<p>The best faculty, staff, and learners are utilized for ensuring the highest quality of delivering the Study Program and they work together for the greater good.</p> <p>Academic staff delivering the Study Program have experience in teaching, research, management, educational and innovative work in the field of Healthcare, and meet the requirements approved in the Resolution of Cabinet of Ministers of Ukraine №1187, dated December 30th, 2015.</p> <p>Academic staff, delivering classes in English, are fully certified with English proficiency tests and courses with the level B2 and higher.</p>
<b>Resources, Facilities and Equipment</b>	<p>The physical/material components of the Study Program include:</p> <ul style="list-style-type: none"> <li>- laboratories;</li> <li>- classrooms, equipped with multimedia panels and/or projectors and Smart-Boards, which substitutes 8 devices that are commonly used in the educational process: computer, tablet, projector, projection screen, microphone, speaker, camera, writing whiteboard;</li> <li>- computer labs;</li> <li>- Center for Simulation Training and Assessment, equipped with cutting-edge simulators, phantoms and 3-D models;</li> <li>- Affiliated teaching hospitals with fully equipped facilities for learning at bedside;</li> <li>- sports and recreation facilities;</li> <li>- dormitory;</li> <li>- tools and supplies that support learning.</li> </ul>
<b>Informational and methodical support</b>	<p>While delivering the Study Program faculty members use open educational resources which are: teaching, learning, and resource materials, tools, and media that reside in the public domain and</p>

	<p>may be used and repurposed freely by students. Particularly, faculty members and students of MAC use "PrExam" platform, which consists of training and control modules and allows to create a virtual educational environment for teachers and students. During the pandemic emergency response, this resource has become one of the major tools for distance learning at the Institute.</p> <p>Along with Pre-Exam we use Google Apps for Education and the multi-user cross-platforms, that facilitates accelerated learning and teaching in medical sciences and anatomy across desktop, mobile, and augmented reality devices delivering 3D sessions.</p> <p>Students have access to the institute library, reading halls, electronic library, educational portal of the Institute and resources of Sciencedirect and Scopus by Elsevier, National Medical Library of Ukraine and Alfred Nobel University Library.</p>
<b>9 – Academic mobility</b>	
<b>National credit mobility</b>	National credit mobility is based on the agreements between Higher Educational Establishments of Ukraine. The program provides an opportunity for credit mobility among the Medical Academic Consortium, which unites Kyiv Medical University, Kharkiv Institute of Medicine and Biomedical Sciences and the Dnipro Institute of Medicine and Public Health.
<b>International credit mobility</b>	<p>Mobility in higher education mainly takes place through the Erasmus European Programme. Erasmus promotes the cooperation between higher education institutions focusing on the improvement of educational quality and the enhancement of the European dimension in higher education. It is implemented on the basis of an agreement between Kyiv Medical University and the Silesian Medical University in Katowice (Republic of Poland).</p> <p>The Study Program offers credit mobility based on agreements with Aichi Medical University (Japan) and Kazakhstan Medical University of Continuing Education. Besides International credit mobility, these agreements include:</p> <ul style="list-style-type: none"> <li>- development of mutual Study Programs and student mobility;</li> <li>- joint internships for students;</li> <li>- conducting of joint research, which includes mutual financing;</li> <li>- publication of joint research results in international journals.</li> </ul>
<b>International Students Teaching</b>	Training of International Students is conducted in English and Ukrainian in accordance with the requirements of the Ukrainian legislation. It is obligatory for International Students to study a separate educational component "Ukrainian as a Foreign Language". Knowing Ukrainian language allows them to actively participate in classes when they reach the Clinical Sciences cycle which is performed with learning at bedside. International students do not take the educational component "Training of

### 3. LIST OF EDUCATIONAL COMPONENTS OF THE STUDY PROGRAM

Code	Educational components of the Study Program	Number of credits	Form of final control
<b>COMPULSORY COMPONENTS (OK)</b>			
<b>Preclinical Phase</b>			
<b>I. Basic biomedical sciences training</b>			
OK1	Medical Biology	5,5	Exam
OK2	Medical and Biological Physics	4	Differentiated Credit
OK3	Medical Chemistry	4	Differentiated Credit
OK4	Bioorganic Chemistry	3	Credit
OK6	Human Anatomy	14,5	Exam
OK7	Histology, Cytology and Embryology	11,5	Exam
OK10	Biological Chemistry	6,5	Exam
OK11	Medical Informatics	3,5	Differentiated Credit
OK12	Microbiology, Virology and Immunology	8,5	Exam
OK13	Physiology	10	Exam
<b>Total:</b>		<b>71</b>	
<b>II. Behavioural and social sciences training</b>			
OK5.1	Ukrainian Language (professionally oriented)*	5	Credit
OK5.2	Foreign Language *	5	Credit
OK5.3	Ukrainian as a Foreign Language**	10	Credit
OK8	Safety of Life Activity	1,5	Credit
OK9	Physical Training	0	Credit
OK14	Hygiene and Ecology	9	Differentiated Credit
OK16	Labor Protection in Medicine	3	Credit
OK25	Medical Psychology	3	Credit
OK26	Social Medicine and Public Health	6	Differentiated Credit
<b>Total:</b>		<b>45,5</b>	
<b>Clinical Phase</b>			
<b>III. Clinical sciences training</b>			
OK15	Clinical Anatomy and Operative Surgery	3	Differentiated Credit
OK17	Patient's Care (practical session)	5	Differentiated Credit



OK18	Pathomorphology	7	Exam
OK19	Pathophysiology	7	Exam
OK20	Pharmacology	7	Exam
OK21	Propedeutics of Internal Medicine	6	Differentiated Credit
OK22	Propedeutics of Pediatrics	5	Differentiated Credit
OK23	General Surgery	6	Differentiated Credit
OK24	Radiology	4	Differentiated Credit
OK27	Nursing practice	3	Differentiated Credit
OK28	Internal Medicine	17,5	Differentiated Credit
OK29	Endocrinology	2	Credit
OK30	Medical Genetics	1	Credit
OK31	Pediatrics	10	Differentiated Credit
OK32	Surgery / Pediatric Surgery	15	Exam
OK33	Obstetrics and Gynecology	10,5	Differentiated Credit
OK34	Neurology	4	Exam
OK35	Urology	1	Differentiated Credit
OK36	Otorhinolaryngology	3	Differentiated Credit
OK37	Ophthalmology	3	Differentiated Credit
OK38	Psychiatry and Narcology	1	Differentiated Credit
OK39	Dermatology and Venereology	3	Differentiated Credit
OK40	Epidemiology and Principles of Evidence-Based Medicine	3	Differentiated Credit
OK41	Inpatient Clinical Clerkship	5	Differentiated Credit
OK42	Clinical Immunology and Allergology	2,5	Differentiated Credit
OK43	Clinical Pharmacology	1	Credit
OK44	Occupational Diseases	1,5	Credit
OK45	Oncology	1	Differentiated Credit
OK46	Radiation Medicine	1	Credit
OK47	Neurosurgery	0,5	Credit
OK48	Infectious Diseases	2,5	Differentiated Credit

OK49	Pediatric Infectious Diseases	3	Credit
OK50	Phthisiology	3	Differentiated Credit
OK51	Anaesthesiology and Intensive Therapy	3	Differentiated Credit
OK52	Emergency Medical Aid	3	Differentiated Credit
OK53	Outpatient Clinical Clerkship	5	Differentiated Credit
OK54	Pulmonology	3	Differentiated Credit
OK55	General Practice (Family Medicine)	4,5	Differentiated Credit
<b>Total:</b>		<b>163,5</b>	
<b>Total number of credits for compulsory educational components:</b>		<b>270</b>	
<b>OPTIONAL COMPONENTS (BK)<sup>1</sup></b>			
<b>II. Behavioural and social sciences training</b>			
<b>Block 1</b>			
BK 1.1	History of Ukraine and Ukrainian culture	3	Differentiated Credit
BK 1.2	Culturology	3	Differentiated Credit
<b>Block 2</b>			
BK 2.1	Latin Language	3	Differentiated Credit
BK 2.2	Medical Terminology	3	Differentiated Credit
<b>Block 3</b>			
BK 3.1	Philosophy of Pedagogics and Education	3	Differentiated Credit
BK 3.2	Philosophy of Communication	3	Differentiated Credit
<b>Block 4</b>			
BK 4.1	History of Medicine	3	Credit
BK 4.2	Religions and the Medical Science	3	Credit
<b>Block 5</b>			
BK 5.1	Basics of Bioethics and Biosafety	1,5	Credit
BK 5.2	Medical Deontology	1,5	Credit
<b>Block 6</b>			
BK 6.1	Ukrainian as a Foreign Language**	18	Credit
BK 6.2	Foreign Language (professionally oriented) *	18	Credit
BK 6.3	Culture of Speech	18	Credit
<b>Block 7</b>			
BK 7.1	Forensic Medicine. Ukrainian Medical Legislation	3	Credit
BK 7.2	Legal Aspects of Forensic Medicine	3	Credit
<b>Block 8</b>			

BK 8.1	Social Medicine and Public Health. Regional Programs	3	Differentiated Credit
BK 8.2	Health Economics and Social Medicine	3	Differentiated Credit
<b>III. Clinical sciences training</b>			
<b>Block 9</b>			
BK 9.1	Physical Rehabilitation and Sports Medicine	3	Credit
BK 9.2	Ergotherapy and Kinesiotherapy	3	Credit
<b>Block 10</b>			
BK 10.1	Palliative and Hospice Medicine	2	Credit
BK 10.2	Gerontological Aspects in Palliative and Hospice Medicine	2	Credit
<b>Block 11</b>			
BK 11.1	Fundamentals of Urology	2	Credit
BK 11.2	Fundamentals of Transplantology in Urology	2	Credit
<b>Block 12</b>			
BK 12.1	Fundamentals of Narcology	2	Differentiated Credit
BK 12.2	Fundamentals of Sexology and Sexopathology	2	Differentiated Credit
<b>Block 13</b>			
BK 13.1	Surgery / Pediatric Cardiac Surgery	5	Differentiated Credit
BK 13.2	Vascular Surgery	5	Differentiated Credit
<b>Block 14</b>			
BK 14.1	Clinical Oncology	3	Differentiated Credit
BK 14.2	Oncohematology	3	Differentiated Credit
<b>Block 15</b>			
BK 15.1	Internal Medicine / Side Effects of Medications	3,5	Credit
BK 15.2	Modern Endoscopic Technologies	3,5	Credit
<b>Block 16</b>			
BK 16.1	Pediatrics and specialized learning of Pediatric Pulmonology	3	Credit
BK 16.2	Pediatric Nephrology	3	Credit
<b>Block 17</b>			
BK 17.1	Training of Reserve Officers (Specialty "Medicine")*	3	Credit
BK 17.2	Psychosocial Rehabilitation after Combat Operations	3	Credit
BK 17.3	Tactical Medicine	3	Credit
<b>Block 18</b>			
BK 18.1	Obstetrics and Gynecology with specialized learning of Genetic Disorders	2	Credit
BK 18.2	Biomedical Aspects of Reproductology	2	Credit

<b>Block 19</b>			
BK 19.1	Traumatology and Orthopedics	3	Differentiated Credit
BK 19.2	Traumatology, Orthopedics and Rehabilitation	3	Differentiated Credit
<b>Block 20</b>			
BK 20.1	Infectious Diseases / Pediatric Viral Diseases	2	Credit
BK 20.2	Prevention and Control of Infectious Diseases	2	Credit
<b>Block 21</b>			
BK 21.1	Internal Medicine with specialized learning of Cardiology	4,5	Differentiated Credit
BK 21.2	Internal Medicine with specialized learning of Pulmonology	4,5	Differentiated Credit
<b>Block 22</b>			
BK 22.1	Pediatric Gastroenterology	5	Credit
BK 22.2	Pediatric Allergology	5	Credit
<b>Block 23</b>			
BK 23.1	Emergency Thoraco-Abdominal Surgery	5,5	Differentiated Credit
BK 23.2	Neurosurgical Issues of Cerebrovascular Pathology	5,5	Differentiated Credit
<b>Block 24</b>			
BK 24.1	Role of Public Health System during a Pandemic	4	Credit
BK 24.2	Parasitic Infections among Children	4	Credit
<b>Total number credits for optional educational components:</b>		<b>90</b>	
<b>TOTAL FOR WHOLE STUDY PROGRAM:</b>		<b>360</b>	

\* - for Ukrainian citizens

\*\* - for international students

#### 4. ATTESTATION OF STUDENTS OF THE STUDY PROGRAM

<b>Forms of Attestation of graduates of the Study Program</b>	<p>Attestation of students is carried out in the form of the Unified State Qualification Examination (USQE).</p> <p>The Unified State Qualification Examination (USQE) consists of the following components:</p> <p><i>After 3rd year of study:</i></p> <ul style="list-style-type: none"> <li>- KROK-1 exam;</li> <li>- English for professional purposes exam</li> </ul> <p><i>After 6th year of study:</i></p> <ul style="list-style-type: none"> <li>- KROK-2 exam;</li> <li>- Objective Structured Clinical (Practical) Examination.</li> </ul> <p>The procedure and requirements for conducting USQE are</p>
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	defined by the Resolution of the Cabinet of Ministers of Ukraine (№334, dated March 28 <sup>th</sup> , 2018).
<b>Documents on successful completion of the Study Program</b>	Upon completion of the Study Program, graduates are awarded: -the state standard Master's Degree Diploma -professional qualification “Doctor of Medicine” -Diploma Supplement of the European standard as an integral part of the diploma.

### **APPENDIX 1. LOGICAL STRUCTURE OF THE DOCTOR OF MEDICINE STUDY PROGRAM**

### **APPENDIX 2. MATRIX OF CORRESPONDENCE OF THE PROGRAM COMPETENCIES TO THE EDUCATIONAL COMPONENTS**

### **APPENDIX 3. MATRIX OF CORRESPONDENCE OF PROGRAM LEARNING OUTCOMES TO THE EDUCATIONAL COMPONENTS**

#### **APPENDIX 4. LISTS:**

- **LIST 1. SYNDROMES AND SYMPTOMS;**
- **LIST 2. DISEASES;**
- **LIST 3. EMERGENCY STATES;**
- **LIST 4. LABORATORY AND INSTRUMENTAL RESEARCH;**
- **LIST 5. MEDICAL MANIPULATIONS.**

## 5. Legislation and regulations in medical education sphere

1. Law of Ukraine "On Higher Education" 07/01/2014 №561556-VII.
2. Law of Ukraine "On Education" 09/05/2017 №2145-VIII.
3. Resolution of the Cabinet of Ministers from 04/29/2015 № 266 "On approval of the list of branches of knowledge and specialties for which higher education students are trained."
4. Resolution of the Cabinet of Ministers of Ukraine from 03/28/2018 № 334 "On approval of the Procedure for conducting a single state qualification exam for applicants for a master's degree in the field of knowledge" Health ".
5. Resolution of the Cabinet of Ministers of 13/23/2013 №341341 "On approval of the National Qualifications Framework".
6. National Classifier of Ukraine: "Classifier of Professions" DK 003: 2010 // Publishing House "Sotsinform". 2010.
7. Order of the Ministry of Economic Development and Trade of Ukraine of 10/18/2014 № 1361 "On approval of the amendment to the national classifier of Ukraine DK 003: 2010" (amendment № 2).
8. Resolution of the Cabinet of Ministers of Ukraine of 12/30/2015 № 1187 "On approval of the License conditions for educational activities of educational institutions" (as amended).
9. Methodical recommendations for the development of standards of higher education // Order of the Ministry of Education and Science of Ukraine dated 06/01/2016 №600 (as amended by the order of the Ministry of Education and Science of Ukraine dated 10/01/2019 №1254).
10. International regulations and standards governing the professional activities and training of physicians:
  - 10.1. Directive 2005/36 / EC OF the European Parliament and of the Council of 09/07/2005 on the recognition of professional qualifications
  10. 2. Directive 2013/55 / EU of the European Parliament and of the Council of 11/20/2013
  10. 3. WFME Global Standards for Quality Improvement: Basic Medical Education, WFME Global Standards for Quality Improvement: Postgraduate Medical Education and WFME Global Standards for Quality Improvement: Continuous Professional Development and Standards for PhD Education in Biomedicine and Health Sciences in Europe
  - 10.4. Standards of medical care in Ukraine.  
The above mentioned standards are taken into account when determining the terms of training, learning outcomes, Certification requirements and quality requirements.
  - 10.5. Doctor's Code (Adopted and signed by the All-Ukrainian Congress of Medical Organizations and the X Congress of the All-Ukrainian Medical Society in Evpatoria on 09/27/2009) (<http://www.uapravo.net/akty/postanowy-osnovni/akt5dprf9d .htm>)
  - 10.6. Glossary of Terms (Annex III). Erasmus + Program Guide.
  - 10.7. Policy Brief Accreditation of Institutions for Health Professional Education.
  - 10.8. Glossary of Medical Terms. Howard University, College of Medicine.
  - 10.9. LCME Accreditation, Harvard University, Medical School.
  - 10.10. Competencies and Objectives for Medical Student Education. Medical Program Student Handbook. Stanford University.
  - 10.11. Toward a Common Taxonomy of Competency;

- 10.12. Domains for the Health Professions and Competencies for Physicians, Robert Englander, MD, MPH, Terri Cameron, MA, Adrian J. Ballard, Jessica Dodge, Janet Bull, MA, and Carol A. Aschenbrener, MD;
- 10.13. Tuning Process, Reference List of General Physician Competencies, AAMC