

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Sumy State University

Medical Institute

Approved
Rector
Vasyl D. Karpusha
5 of November 2021

SELF-ASSESSMENT REPORT

educational and professional program «Medicine» (Field of study 22 «Health», Specialty 222 «Medicine»)

CONTENT

GENERAL INFORMATION (PROFILE)	3
GENERAL INFORMATION ABOUT SUMY STATE UNIVERSITY	5
GENERAL INFORMATION ABOUT THE EDUCATIONAL PROGRAM UNDERGOING INTERNATIONAL ACCREDITATION	6
I LIST OF ABBREVIATIONS	10
II INTRODUCTION	12
III PRESENTATION OF EDUCATION ORGANIZATION	12
IV PREVIOUS ACCREDITATION	14
V COMPLIANCE WITH STANDARTS OF PROGRAMME	15
STANDARD "MISSION AND OUTCOMES"	15
STANDARD "EDUCATIONAL PROGRAMME"	22
STANDART "ASSESSMENT OF STUDENTS"	43
STANDARD "STUDENTS"	49
STANDARD "ACADEMIC STAFF / TEACHERS"	59
STANDARD "EDUCATIONAL ENVIRONMENT AND RESOURCES"	65
STANDARD "ASSESSMENT OF THE EDUCATIONAL PROGRAMME"	78
STANDARD "MANAGEMENT AND ADMINISTRATION"	83
STANDARD "CONSTANT UPDATE"	89
VI SELF-ASSESMENT COMMISSION REPORT	99

GENERAL INFORMATION (PROFILE)

Full name of the medical education	Sumy State University (SSU)	
organization		
Legal details	Extract from the Unified State Register of Legal Entities,	
	Individual Entrepreneurs and Public Associations	
	(https://bit.ly/3qrTxBP)	
	Information on the right to conduct educational activities in	
	the field of higher education (license)	
	(https://bit.ly/30f9wbb)	
	Regulations (https://bit.ly/3D8ckFS)	
Rector	Vasyl D. Karpusha, Associate professor, Ph.D. in Physical	
	and Mathematical Sciences	
Founders	Form of ownership - state,	
	Ministry of Education and Science of Ukraine	
Contact information	Address: 2, Rymskogo-Korsakova st., Main Building, room	
	302, 40007 Sumy, Ukraine E-mail: rector@sumdu.edu.ua	
Date of submission of	First 15.11.2021	
selfassessment report	Final 10.01.2022	
Person responsible for accreditation	Inna O. Shkolnyk, Vice-rector for Scientific and Pedagogic	
(tel./fax / e-mail)	work, Professor, Doctor of Economics	
	тел: +38 0542 687410	
	e-mail: y.shkolnyk@rectorat.sumdu.edu.ua	
	Lyudmyla Prystupa, head of department of Internal	
	Medicine Department with Respiratory Medicine Center,	
	Doctor of Medical Sciences, Professor	
	тел: +38 (0542) 77-40-83	
	e-mail: l.pristupa@med.sumdu.edu.ua	
Educational level of the accretiting	Second (Master's) level of higher education; NQF – 7-th	
educational programme	level; QF-LLL – 7-th level; QF-EHEA – 2-nd cycle	
Degree of qualification awarded in	Educational qualification - Магістр медицини / Doctor of	
state and English languages	Medicine	
	Professional qualification - лікар / physician	
Output of IAAR Standard	Astana 2018	
Information on group that		
conducted selfassessment	Department of Internal Medicine with the Center of	

	Respiratory Medicine, Head of the Department of Internal	
	Medicine with the Center of Respiratory Medicine	
	Petrashenko Viktoriya Oleksandrivna, Associate Professor	
	at the Department of Pediatrics	
	Ataman Yuriy Oleksandrovych - Professor at the	
	Department of Family Medicine with a course in	
	Dermatovenerology	
	Holubnycha Viktoriya Mykolayivna - Associate Professor	
	at the Department of Public Health, Deputy Director for	
	Academic Affairs, Associate Professor at the Department of	
	Public Health	
	Fadyeyeva Hanna Anatoliyivna - Associate professor at the	
	Department of Internal Medicine with the Center of	
	Respiratory Medicine	
	Savenko Inessa Ivanivna - Director of Municipal Non-	
	Commercial Enterprise of Sumy Regional Council "Sumy	
	Regional Clinical Hospital for War Veterans"	
	Leslaw Lenartowic - Chief Physician of Healthcare Center	
	"St. John Paul II Hospital", Poznan, Poland	
	Varava Yuliya Valentynivna - Student, Group ЛС-611	
	Vireko Andrew Avuah - Student, Group Мц.м-742	
The number of the order and dates	Number of the order 0736-I dates of approval 22 Jul 2021	
of approval of the working group		

GENERAL INFORMATION ABOUT SUMY STATE UNIVERSITY

Full name of the medical	Sumy State University (SSU)
education organization	
Founders	form of ownership - state,
	Ministry of Education and Science of Ukraine
Year of foundation	1948–1989 yy. the university existed as a separate structural unit of other higher education institutions; from 1990 – as independent Higher Education Institution – Sumy Physics and Technology Institute; from 1993 – SSU with the status of a university of the classical type; in 1992 the medical faculty of SSU was opened; in 2005 the Medical Institute was established on the basis of the medical faculty SSU.
Current accreditation status	Accredited specialty till 01.07.2025
Location	2, Rymskogo-Korsakova st., 40007 Sumy, Ukraine
Rector	Vasyl D. Karpusha, Associate professor, Ph.D. in Physical and Mathematical Sciences
License	Extract from the Unified State Register of Legal Entities, Individual Entrepreneurs and Public Associations (https://bit.ly/3qrTxBP) Information on the right to conduct educational activities in the field of higher education (license) (https://bit.ly/30f9wbb) Regulations (https://bit.ly/3D8ckFS)
Number of students (full-time, part time)	Full-time - 5327 students, part time - 1474 students

GENERAL INFORMATION ABOUT THE EDUCATIONAL PROGRAM UNDERGOING INTERNATIONAL ACCREDITATION

Part I		
Educational programme	222 Medicine (branch of knowledge 22 Healthcare)	
Level / period of study	Second (master's) degree/5 years 10 months	
Structural division (head)	Medical Institute Sumy State University: director, the doctor of Medical Sciences, associate professor of Pediatrics, Loboda Andrii	
Main departments (heads of departments)	 Internal Medicine Department with Respiratory Medicine Center, Lyudmyla Prystupa, head of department, Doctor of Medical Sciences, Professor Department of Pediatrics, Smiyan Oleksandr Ivanovych, the doctor of Medical Sciences, Professor, Honored Doctor of Ukraine. Family Medicine and Dermatovenerology Department, Viktor Orlovski the Head of the Department, M.D., Professor of Internal Medicine Department of Physiology and Pathophysiology with a course in medical biology, Ataman Olexandr, the Head of the Department, M.D., Professor of Medicine Department of Morphology Bumeister Valentyna, Head of the Department, M.D., Professor of Biology Department of Pathology Anatolii Romaniuk, the Head of the Department, M.D., Professor of Medicine Department of Surgery, Traumatology, Orthopedics and Phthisiology Duzhyi Ihor Dmytrovych, professor, academician of the Academy of Sciences of the Higher School of Ukraine, doctor of medical sciences, professor, honored doctor of Ukraine 	

	• Department of Obstetrics, Gynecology and Family Planning Vladimir Boyko, Head of the Department, Doctor of Medical Sciences, Professor,
Date of the external visit	26-28 of January 2022
Person responsible for accreditation (tel./fax / e-mail)	Inna O. Shkolnyk, Vice-rector for Scientific and Pedagogic work, Professor, Doctor of Economics тел: +38 0542 687410 e-mail: y.shkolnyk@rectorat.sumdu.edu.ua Lyudmyla Prystupa, head of department of Internal Medicine Department with Respiratory Medicine Center, Doctor of Medical Sciences, Professor тел: +38 (0542) 77-40-83 e-mail: l.pristupa@med.sumdu.edu.ua
Part II	
Number of ECTS credits	360
Duration of study, form of study	12 semesters, form of study (full time)
Start of study	01 of September /01 of February
Date of introduction of the educational programme	01.02.2017
Previous accreditation	Accredited specialty till 01.07.2025
Requirements for applicants	A person has the right to obtain a master's degree on the basis of complete general secondary education, subject to the successful completion of an external independent evaluation of the quality of education. Terms of admission are determined by the "Rules of admission to SSU" (https://bit.ly/3GwYvmo), developed in compliance with national requirements

Further education opportunities (upon completion of the programme)	Internship (primary specialization), residency, educational and scientific program for the degree of Doctor of Philosophy.
Goals and objectives of the EP	The educational-professional program (EPP) is developed in accordance with the mission and strategy of the university in terms of service to society, educational activities, and aims to provide training of highly qualified medical professionals capable of solving complex problems and solving problems in healthcare with their formation and acquisition. general and special competencies of a doctor, suitable for further professional activity, capable of research and innovation activities in accordance with the principles of bioethics and academic integrity.
Brief description of the EP	https://bit.ly/3Ff4sD1
Learning outcomes	Learning outcomes are presented in subclause 1.7 of EPP (https://bit.ly/3Ff4sD1)
Specialization	After graduating from the educational program of the master's degree in "Medicine" (https://bit.ly/3FltWP0), the specialist is able to perform professional work: intern (code – 3229); trainee doctor (code – 3221); resident doctor (code – XXX).
Additional features	-
Number of admitted students	2100
Tuition fee	https://bit.ly/3EH9s2Y
Employment opportunity	After training in an internship, the residency specialist is assigned a qualification - a doctor who is able to perform the professional work specified in DK 003: 2010 and can hold a relevant medical position:

Class 222 Medical professionals (except nurses).

Subclass 2221 Medical professionals (except dentistry).

Group 2221.2 Doctors.

Subclass 2225 Professionals in the field of health prevention.

Group 2225.2 Doctors, specialists in the field of medical and preventive affairs.

Group 2229.2 Professionals in medicine (nursing and obstetrics).

I LIST OF ABBREVIATIONS

AS – academic staff

CBL – Case-based learning

CCCH - Central City Clinical Hospital

CGSE – complete general secondary education

CHEQA - Center for Higher Education Quality Assurance

CMU - Cabinet of Ministers of Ukraine

CQAHE – Council for Quality Assurance in Higher Education

CR - curriculum

CSE – complete secondary education

CSTEI – center of scientific, technical and economic information

EBM – evidence-based medicine

ECE – Expert Council of Employers

ECTS – European credit transfer and accumulation system

EIT – external independent testing

ELPT – English Language Proficiency Test

EP – educational process

EPP – educational-professional program

ESP – educational-scientific program

GC – general competencies

HCI – healthcare institution

HE – higher education

HEI – higher education institution

ICT – information and communication technologies

LO – learning outcomes

MC – mandatory component

MES – Ministry of Education and Science

MHU - Ministry of Health of Ukraine

MI – Medical Institute

MTB – material-technical base

MTS – material-technical support

NAQA – National Agency for Higher Education Quality Assurance

OC – optional component

OCW - Open Course Ware

OSCE – objective structured clinical examination

PhD – Doctor of Philosophy

PLO – program learning outcomes

RBL - research-based learning

RC – regional coefficient

RC - rural coefficient

SC – special competencies

SCC - Sumy City Council

SDC – Staff Development Center

SEC – secondary education certificate

SIW – student independent work

SLS – structural and logical scheme

SRC - Sumy Regional Council

SRCH - Sumy Regional Clinical Hospital

SRU - Scientific and Research Unit

SRW – Scientific research work

SSQT – Single State Qualification Test

SSSP - Scientific Society of Students, Postgraduates and Young Scientists

SSU – Sumy State University

TBL – Team-based learning

TS – temporary standard

USEDE – Unified State electronic database on education

WPG – Working Project Group

II INTRODUCTION

The self-assessment of EPP 222 "Medicine" in SSU MI is taking place for the first time, which is due to the need to assess its compliance with the international standards of accreditation of basic medical education IAAR (based on WFME / AMSE). EPP is developed taking into account the Strategic Development Plan of SSU for 2020 - 2026 (https://bit.ly/3vEtesw), national requirements in accordance with the Law of Ukraine "On Higher Education", the draft Standard of the Higher Education of Ukraine of the second (master's) level of HE branch of knowledge 22 "Healthcare" specialty 222 Medicine, Resolutions of the Cabinet of Ministers of Ukraine (CMU) on November 23, 2011 №1341 "On approval of the National Qualifications Framework", with changes made in accordance with the Resolutions of the CMU on June 12, 2019 № 509, on June 25, 2020 № 519, Resolution of the CMU on December 30, 2015 № 1187 "On approval of the License conditions for educational activities of educational institutions" and other applicable regulations.

In order to organize the development of EPP and conduct its annual review, the university has established a Working Project Group (WPG) with the involvement of stakeholders, which acts in accordance with the Regulations on the organization of the educational process (https://bit.ly/3EoYsHl). The guarantor and members of the WPG conducted a self-assessment of the EPP where they assessed its structure, compliance of the final learning outcomes (LO) with the mission; assessment methods to learning methods, teaching; compliance of material-technical base (MTB) and academic staff (AS); the role of internal and external stakeholders in updating the EPP, as well as the compliance of methods of administration and management at SSU.

III PRESENTATION OF EDUCATION ORGANIZATION

SSU has its prehistory of creation, establishment and development in the status of a separate structural unit of other higher education institutions (HEI) in 1948-1989 and in the following period as an independent institution (since 1990 - Sumy Institute of Physics and Technology, since 1993 - SSU with the status of a classical type university). By the order of the rector of the Sumy Institute of Physics and Technology № 109 on June 15, 1992, a medical faculty was opened to train specialists in the specialty "Medical Affairs". In autumn 2005, the SSU MI was established on the basis of the medical faculty, which included 2 faculties - medical and postgraduate medical education, in 2012 training in the specialty "Medical and preventive affair" began, in September 2013 a sanatorium was opened, which in early 2017 was transformed into the University Clinic of SSU. Since 2013, training in the specialty "Dentistry", and since 2014 − "Physical Rehabilitation" ("Physical Therapy, Occupational Therapy"), "Physical Culture and Sports" began. Since September 2017, 2 more specialties "Pediatrics" and "Public Health" have been opened.

SSU is ranked 1001+ in the World Ranking of Research Universities The World University and the catalog of the best research universities in the world from the Shanghai ranking and in the top

300 universities in the world in the ranking The University Impact Ranking from Times Higher Education. According to the international rating QS World University Rankings, the university is one of the 3% leading universities in the world and is classified as a university with high research performance. According to this rating, SSU is in the group of leaders among Ukrainian institutions of HE. The QS rating also ranked the university in the top 150 "young" universities in the world, which are "growing rapidly". According to the international ratings Webometrics Ranking of World Universities and uniRank University Ranking SSU occupies 1st and 3rd places among Ukrainian institutions of HE, respectively, and occupies high positions in the European ranking U-Multirank, which determines most indicators of educational, extracurricular, international and other aspects of SSU activity that exceed the world average. According to the international rating Round University Ranking, the university is on the 617th position among the HEI of the world and on the second among the universities of Ukraine; according to the international rating SciMago Institutions Rankings ranks 5th among the HEI of Ukraine and is among the top 200 universities in Central and Eastern Europe. According to the UI GreenMetric international ecological rating, the university is among the top 250 universities in the world.

According to the scientometric database Scopus, due to the number of citations by the world scientific community of publications of university scientists and the Hirsch index SSU is among the leaders of the scientific and educational space of Ukraine, pursuant to the results of research on the quality of scientific activities universities of Ukraine. The university has a high position according to the results of the consolidated rating of domestic universities "Osvita.ua" (leader of education in the Northern region, 13-14th place among domestic institutions of HE). The university is also one of the 10 best universities in Ukraine according to the rating "Top-200 Ukraine". The University is the first in Ukraine to pass an independent external audit of QS in 2014 and received the highest marks (5 stars) in terms of quantity and quality of AS, student satisfaction with the quality of education, learning conditions and accessibility, social orientation and e-learning. In terms of the number of prizes in the All-Ukrainian competitions of student research works, SSU has the highest indicator, and in terms of the number of prizes in the All-Ukrainian Olympiads in academic disciplines and specialities, it is the leader among Ukrainian universities. The University is a signatory to the Grand Bologna Charter of Universities, a member of the International Association of Universities, the European Association of Universities, the Association of Economic Universities of Southern and Eastern Europe and the Black Sea Region, the IREG International Observatory for Academic Ratings and Excellence, Network of institutes of international education and other international organizations, cooperates with more than 250 partners from the USA, Great Britain, Germany, Austria, France, Belgium, Sweden, Poland, Lithuania, Bulgaria, the Czech Republic, Slovakia, Romania, Japan, South Korea, China and other countries of the world. SSU is a permanent partner in joint projects under

international grant programs of the European Union (Tempus, Jean Monnet, Erasmus +, Horizon 2020), the United Nations Development Program, the British Council, the World Bank, bilateral research projects, grants from private funds, implements more than 300 grants annually.

The internal quality assurance system of the university is formed on the basis of the requirements of the Laws of Ukraine "On Higher Education", "On Education", Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG 2015) and in accordance with European best practices. The university has formed an institutional basis for quality assurance. The key center that defines the institutional framework and regulates quality assurance processes is the Center for Quality Assurance of Higher Education of Sumy State University (https://bit.ly/3os8OI5). The level of strategic management includes the Supervisory Council of the University, the Academic Council of the University, the Rector. The university level is represented by - the Council for Quality Assurance of Higher Education (CQAHE) of SSU (https://bit.ly/3DkWuYt), which is an advisory body, and the center for quality assurance of educational activities and the quality of HE. At the level of MI - CQAHE of MI (https://bit.ly/30zJUX4) has been established, which ensures the implementation of the university's policy in the field of quality assurance. At the basic level, the internal quality assurance system is represented by the departments responsible for the quality of EPP implementation, their compliance with the mission and strategy of the university, as well as their compliance with the needs of internal and external stakeholders.

IV PREVIOUS ACCREDITATION

Accreditation of the educational-professional program 222 "Medicine" according to IAAR standards is carried out for the first time.

V COMPLIANCE WITH STANDARTS OF PROGRAMME STANDARD "MISSION AND OUTCOMES"

1.1. Mission definition

1.1.1. Mission of EPP "Medicine" was approved by the Academic Council of the MI in 2019, updated in 2021 and constitutes an integral part of "Concepts of educational activity development according to EPP 222 Medicine according to the second (Master) level of the field of knowledge 22 Health care for 2021-2025" (https://bit.ly/3ErpEVR), reflecting its key aspects, developed in accordance to the laws of Ukraine "On higher education" (https://bit.ly/3vR49e4), "On education" (https://bit.ly/3vBK9w7), standards and recommendations for quality control in the European Higher Education Area (ESG, 2015), as well as national strategy for reformation of healthcare system.

Mission of EPP corresponds the SSU mission (https://bit.ly/3vEtesw) to maximize the satisfaction of value expectations of all stakeholders categories by providing an undisputed competitive advantage of services; it is realized by students acquiring competencies and achieving the final LO, which form highly educated and intelligent healthcare professionals with consideration of the regional needs, able to work both in team and independently. Vision - formation of a competent and competitive specialist at the national and international level in the practice, management and healthcare organization.

- **1.1.2.** Mission of EPP is published on the SSU MI website (https://bit.ly/3mqlBTS), ensuring its accessibility for the healthcare sector and all stakeholders. Information on the planned review of the mission was communicated to stakeholders (AS, employers, healthcare officials, HCI and students), inviting to participate in the discussion during the focus group meeting (https://bit.ly/3Fi3sOE, https://bit.ly/3kFqjM1). After discussion and amending at the WPG meeting, the document was submitted for consideration and approved by the Academic Councile of MI.
- 1.1.3. SSU provides the formation of a competent and competitive specialist for practice, management and healthcare organization in accordance with this EPP. SSU has all the necessary resources for the formation of students' GC and SC, achieving LO in accordance with national and international requirements. After graduation, the specialist is able to perform professional activity: intern doctor, trainee doctor, resident doctor, ensuring the implementation of continuing education mainly through the work of the Faculty of Postgraduate Education (https://bit.ly/3C8vwTx). For further training the specialist must enter an internship (primary specialization), where training is implemented by educational programs in a particular specialty on the list approved by the order of the MHU from 23.02.2005 №81, in the future specialists can undergo retraining and training in secondary specialization, acquiring another medical specialty and performing appropriate professional activities. Graduates of EPP "Medicine" can also enter the ESP for the degree of PhD

(https://bit.ly/2XGn7aQ) and Doctor of Science (https://bit.ly/3m5p6i7). By 2021, 167 interns, 60 clinical residents, 126 PhD students, and 5 doctoral students are being trained at the MI.

- **1.1.4.** In accordance with the state qualification characteristics of healthcare workers (https://bit.ly/3bZ9XJi) applicants develop the necessary skills to solve typical and complex specialized tasks in the learning process, practical problems in professional activities in the field of healthcare and scientific research, being an integral competence of EPP "Medicine".
- **1.1.5.** Highly educated intelligent specialists in the sphere of healthcare with consideration of regional demands are trained in terms of realization of the EPP, able to team- and independent work. Healthcare centers directors, the MI director, hospital departments heads, scientific research laboratories directors are among the MI graduates (https://bit.ly/3BkLBE7).
- 1.1.6. Innovative teaching methods used in the EPP Medicine are designed to increase the responsibility of students, awareness of self-education importance and maintaining these qualities throughout their professional activities. A special role is given to students self-guided, individual and research work, the share of which varies depending on the discipline role in achieving the GC and SC, provided by the EPP. Thus, the student acquires the skills to learn, master modern knowledge and apply them in practical situations, to understand the subject area of professional activity, adapt to a new situation, make well founded decisions; a student works in a team; acquires skills of interpersonal interaction, trains persistence in terms of tasks and responsibilities.

The principle of reflexivity is applied, providing an increase in the applicant conscious attitude to learning as the basis of self-motivation in order to stimulate, prepare and support the formation of responsibility for individual/own learning process. Active implementation of such teaching methods as team-based learning (TBL), role play, educational discussion/debate, case-based learning (CBL) stimulate students to take responsibility for the learning process. All of the above motivates a student in the process of learning and develops his clinical and critical thinking. This approach allows as well a student to realize the importance of training in the professional activity in order to acquire and maintain professional competencies, and increases the responsibility for the EP.

Development of medical science and practice, new trends in healthcare, in order to implement the EPP mission in training students, understanding the need for continuous training and implementation of "Regulations on the system of continuous professional development of healthcare professionals" (https://bit.ly/3ptxev2), SSU has all the opportunities to implement the principles of lifelong learning. The system of assessment of continuous professional formal and informal development is given in Annex 5 to the procedure for doctors attestation (https://bit.ly/3vBN87N).

1.1.7. The mission of the EPP is to provide medical students with quality and affordable education to improve public health and improve the life quality of the population in terms of global preservation and promotion of health. The education of foreign students began in 2005, so SSU has

extensive teaching experience, taking into account the specifics of healthcare systems around the world. To this end, the EPP includes topics in the MC on global health and major international health issues (combating various infectious diseases, including COVID19, tuberculosis, HIV, etc.).

- **1.1.8.** Mobile applications are actively used, such as "Android application to determine liver fibrosis" (https://bit.ly/3wxBdsa), "Testmoz test generator" to optimize working hours during classes in clinical biochemistry for foreign **English-speaking** students practical (https://bit.ly/3kmYkAy). A unique medical device for histological and cytological examinations has been developed (https://bit.ly/3koa45M). Training manuals with elements of augmented reality are published: "Diabetes Mellitus Management. Practical Guide with Elements of Augmented Reality: study guide". On the basis of MI the center of collective use of the MI scientific equipment is created (https://bit.ly/2Z7J974); scientific laboratories (https://bit.ly/3n4wABj; https://bit.ly/3vu4cwf; https://bit.ly/3jeZttI) expand the competencies of students in the scientific field. SSU encourages the introduction of innovations in the EP and on a regular basis holds university-wide competitions "ICT Innovations for Modern Education ICT4EDU" (https://bit.ly/3Ec35Vo), "Pedagogical Innovations of SSU" (https://bit.ly/3pz4HEn) among the AS, generally providing broader competencies than those of the required minimum (https://bit.ly/3Bmk6Kz).
- 1.1.9. In order to ensure the mission, namely improvement of public health and quality of the population life, theoretical and practical aspects of patient care are studied, including ethical, professional and deontological; students learn practical aspects during the "Life safety, basics of bioethics and life protection" and all clinical disciplines. The "Code of Corporate Culture of SSU" (https://bit.ly/3k8fNNa) functions in SSU as well, aiming to create an atmosphere of mutual respect between the participants of the EPP, contributing to value system correction towards the importance of knowledge, mutual respect, empathy and understanding other people's issues, laying the foundations of a healthy lifestyle as well.
- 1.1.10. The AS is insured by consideration of the principles of EBM and advanced research experience, combining research and teaching activities and supported at SSU by the approved "Target Comprehensive Program "Harmonization of students scientific work and EP" for 2019-2021 (https://bit.ly/3BbZTXI). The latter reduces the gap between educational and scientific components and their combination according to the principle "teach while researching". Involvement of students into research is implemented through scientific and educational work integration in the framework of the EPP, including the implementation of student research in accordance with research areas of the department and controlled solitary work. 16 students' scientific clubs at the MI SSU were created to involve students into scientific work. Student researches are regulated by a set of documents (https://bit.ly/3m8WDIc). Successful combination of training and research during the implementation of the EPP is confirmed by the publication of results, obtaining security documents, victories of

students in the All-Ukrainian competitions of student research papers, conferences (https://bit.ly/3GfgKwv). SSSP functions at SSU and MI and holds research grants competitions for students on regular basis.

1.2. Participation in the formulation of the mission

1.2.1. The University has a clear mechanism for ensuring the mission stated above is based on the views and suggestions of all stakeholders. This is ensured by: the current internal quality assurance system of SSU, which includes 5 institutional levels (students, project groups, the Expert Council of Employers (ECE), the Council for Quality Assurance in Higher Education (CQAHE) of MI and SSU, and the highest level of the University management – SSU Academic Councile, rector and supervisory Councile.

Students are institutionally involved in the process of developing the mission and the final LO by including them in the WPG (Varava Yuliya and Vireko Andrew), discussions and approval at the CQAHE MI meeting, which includes members of the student government (MI student director Mykhaylenko V. and his first deputy Lisnyak A.). The interests of students are taken into account through regular surveys on the overall assessment of the EPP implementation quality (https://bit.ly/3B2W3zZ). Students` involvement in the surveys is 100%. The results of the surveys influence on work plan development process.

In order to understand the new demands to students, the process of developing and improving the EPP mission, including the definition of program learning outcomes (PLO) in focus group meetings, the results of employers' surveys on their satisfaction with the training quality of MI graduates (https://bit.ly/3GaAr8C).

The academic community is represented by the AS of SSU, able to provide quality training in the field of medicine and actively participates in the development, approval, monitoring and revision of the EPP, and, in particular, in formulating the mission, goals and PLO. The interests of the AS and employers are taken into account through their participation in the discussion and decision-making at meetings of focus groups and WPG (including the guarantor of EPP Prof. Prystupa L. N.; members – AS (Prof. Ataman Yu. O., Assoc. prof. Petrashenko V. O., Assoc. Prof. Golubnycha V. M., Assoc. Prof. Fadeeva H. A.), employers (Director of Sumy Regional Clinical Hospital for War Veterans Savenko I. I., Chief Physician of the Centrum Medyczne HCP Szpital im. św. Jana Pawła II, Poznan, Poland Leslaw Lenartowic).

Approval of EPP by WPG is fulfilled through considering the reviews from external reviewers, including representatives of the AS and employers (Vice-Rector for Scientific, Pedagogical Work and Postgraduate Education, Professor of Internal Medicine №1 of Poltava State Medical University Skrypnyk Ihor Mykolayovych; Vice-Rector for Scientific and Pedagogical Work of Ternopil National Medical University named after I. Gorbachevsky Shulgay Arkadiy

Havrylovych; Director of the Sumy Regional Clinical Hospital Horokh Volodymyr Vasyliovych; Vice-rector for European Integration and Academic mobility, Medical University, Pleven (Bulgaria) Diana Pendicheva). Further approval of the EPP takes place at a meeting of the ECE (https://bit.ly/3cco91N), which includes: Head of the Department of Healthcare of the Sumy Regional State Administration Butenko S.P., Director of the Central Sumy City Clinical Hospital Dominas V. M.; Chief obstetrician-gynecologist of the region, Head of the regional center of family planning Krasnokutska V. V., Director of Sumy City Clinical Hospital №5 of Sumy City Council Petrenko V. Yu., Director of Sumy Regional Diagnostic Center Zhdanov Ya. O., Director of Regional Clinical Perinatal Center of Sumy Regional Council Kuzyomenska M. L., Director of Sumy Central District Clinical Hospital, Sumy District Council, Sumy Region, Potseluyev V. I. Employers involvement in the surveys (36 representatives of medical institutions took part in the surveys). The results of the surveys influence on work plan development process.

After a positive decision of the ECE the EPP, it is approved by CQAHE MI (includes 26 persons from: MI administration, AS, students) (https://bit.ly/3blz7l8) and CQAHE SSU (67 persons from: SSU administration, AS, students) (https://bit.ly/3b6JMQJ).

1.2.2. One of the reasons for preparing a new version of the EPP mission is the external stakeholders requirements and changing conditions of internal and external activities of the University.

The focus groups of EPP design involved the representatives of external stakeholders, in particular cardiac surgeon MD, Doctor of Medicine, Professor, Honored Doctor of Ukraine, Corresponding Member of the National Academy of Medical Sciences of Ukraine, Director of the MHU Heart Institute Todurov B.M., heads of public associations: Chairman of the Association of Pediatricians in Sumy region Smiyan O. O.; Chairman of the Sumy Branch of the Association of Neurologists, Psychiatrists and Narcologists Mudrenko I. H.; Chairman of the Sumy Region Association of Infectious Diseases Chemych M. D., alumni: deputy head of the Radiology Department of Regional Children Clinical Hospital of Sumy Regional Council Khandoga V. S., head of Pulmonology Department of Sumy Regional Clinical Hospital Sumy Regional Council Cherednichenko N. A., intern doctors Dyachenko Yu. M., Kozhukhova K. S., PhD student Yermolenko S. A. (https://bit.ly/3Fi3sOE).

The analysis of Ukrainian EPPs was conducted in 2021 as stated in the analytical report (9.11.2021).

1.3. Institutional autonomy and academic freedom

1.3.1. According to Art. 32 of the Law of Ukraine "On Higher Education" autonomy and self-government are among the main principles of SSU to implement its mission (https://bit.ly/2ZdpOkH), independent decision-making on the organization of EP, forms and

methods of teaching. SSU independently determines the forms of training and organization of EP in accordance with current legislation; formation and approval of staff distribution of positions and salaries in accordance with the legislation; admission of teachers, researchers, scientists and other employees is carried out in accordance with the "Procedure for competitive selection on filling in vacancies at SSU teaching staff" (https://bit.ly/3E8dotw); rating assessment of AS achievements, as well as their financial encouragement through the competition "The best teacher as seen by the students" (https://bit.ly/3vB2zgx), "Regulations on the competition "The best scientific and pedagogical workers of SSU" (https://bit.ly/3pse74D), "Regulations on incentives for achieving a high level of research results publication" (https://bit.ly/3vEu8p3) as well as a system of financial incentives for teachers according to specific results (more than twenty types of encouragements, including the distance courses development, textbooks and training manuals at SSU publishing house, for the guidance of students-winners of all-Ukrainian competitions of student research papers and all-Ukrainian contests, etc.). The SSU Staff Development Center (SDC) provides the AS with opportunities to improve their skills at various thematic short-term seminars and long-term training programs.

Academic freedom of research, teaching and learning is a key principle of SSU development in accordance with the strategic plan of its development. SSU AS has the right to independently implement their pedagogical, academic and research activities, identify and propose modern and relevant MC and OC, as well as amend the content, structural and logical integrity of EPP to achieve the final LO in accordance with trends in healthcare development.

1.3.2. Periodic performance evaluation of AS and departments is implemented in accordance with "System for ensuring the quality of educational activities and HE quality at SSU" (https://bit.ly/3norKPp), Procedure for determining the rating of institutes, faculties and departments of SSU (https://bit.ly/3bR12tH) and during the analysis of the students survey results on the organization quality of educational activities in frames of academic disciplines study. Based on the analysis results, it is possible to re-check the teaching and methodological discipline support and recommendations on training relevance for teachers in advanced training programs (https://bit.ly/3CoPYj3). Every year a commission inspection of departments readiness for the academic year is held by the MI administration, and during the year inspection visits of department heads and head teachers, mutual visits of teachers during practical classes, open classes with subsequent analysis of shortcomings and strengths are conducted as well.

1.4. Final learning outcomes

1.4.1. EPP "Medicine" provides training of highly qualified specialists on the basis of academic training in fundamental and clinical disciplines that are capable of doctoral professional activity in accordance with modern standards, requiring appropriate GC and SC, being ensured by

achieving final LO (Annex II). Achievements in relation to knowledge, skills and thinking are based on the acquisition of social and legal competencies (ability to exercise rights and responsibilities as a society member; enrich moral, cultural, scientific values, etc.).

- **1.4.2.** Students master prognostic and communicative competencies (final LO) for the horizontal professional development of the future doctors (improvement of medical skills) according to EPP (Annex II).
- **1.4.3.** Management and communicative competences ensure the vertical professional development of a future doctor (career development at a medical institution) according to EPP (Annex II).
- **1.4.4.** Students are constantly raising the educational and cultural level, realizing the educational mission of a doctor and belonging to the intellectual elite. Competencies of professional activity (Annex II) are formed at the learning process, contributing to the formation of the ability to continuous professional development.
- **1.4.5.** The University ensures, that LOs are conformable to the needs of public health and healthcare system. The EPP is updated in accordance with the changes of the "National Strategy for Healthcare Reform of Ukraine" and the "Concept of the National Program", the latest achievements in the field of medicine, updated international, national and regional recommendations, protocols. As part of its mission, the University implements educational and research programs, as well as medical services in such a way as to meet the needs of society, positively affect the common health and solve prior health problems.
- **1.4.6.** The University guarantees, that students wishing to receive a diploma fulfill all obligations to doctors, AS, patients and their relatives, adhering to current standards of conduct. The main document of SSU, regulating the behavior of all participants of the EP and shapes the further development of professional behavior of students is the "Code of Academic Integrity" (https://bit.ly/3wj41V4), adhered by students in course of studying. The system of values and principles combines professional, organizational and moral cultures, implemented through the relevant traditions, beliefs, ethical norms and customs. Issues of integrity, ethics and other values of the University are discussed with students during various organizational activities, as well as studied in frames of academic disciplines and cultivated at the level of conventional relations at the University.
- **1.4.7.** Competitive and successful graduate should not only master at a high level purely HS (hard skills), but also have the ability to adapt and work effectively in a rapidly changing environment of information and technology, as well as develop such universal SS (soft skills) as communication and leadership, professional responsibility and professional communication ethics, ability for individual and team work, international languages fluency, ability to effectively apply the legal

framework, organization and management tools in healthcare, creative thinking, methods of searching and problem solving, ability to self-improvement in conditions of swiftly developing medical industry (paragraph 1.6 EPP 222 "Medicine", https://op.sumdu.edu.ua/#/).

- **1.4.8.** Training of specialists in terms of the EPP "Medicine" guarantees students adherence to the appropriate standards of behavior towards AS, patients and their relatives. The basic document, defining the main behavioral priorities of the University community members and defining collective values, is the "Code of Corporate Culture" (https://bit.ly/3GubhlO/, https://bit.ly/3k8fNNa).
- **1.4.9.** Basic level assessment of medical college graduates for admission to the specialty EPP "Medicine" at SSU will begin in 2022 (https://bit.ly/3jMPyvo).

SWOT analysis table

Strengths	Weaknesses
"The conception of educational activities of study	-
programme 222 "Medicine" second (master's) level of higher	
education 22 Healthcare for 2021-2025" was developed and	
implemented. This concept determines the mission, vision	
and strategic directions of development.	
The EPP takes into account the proposals of major	
stakeholders, guaranteeing the competitiveness of graduates	
in the labour market and their employment to the specialty.	
Available innovations in the educational process allow an	
applicant to acquire the necessary competencies.	
The mission of the EPP considers the views of all	
stakeholders.	
The student training process guarantees the professional	
autonomy for providing them opportunities to act in the	
interests of the patient and society.	
Learning outcomes obtained at the previous level of	
education are taken into account.	
Opportunities	Threats
The learning outcomes, which are the basis of future career	High level of competition in the
in medicine, have been identified.	market of educational services in
The general and specialty competencies of educational results	the country.
obligatory for students are determined.	Remodeling of the system of
Relevant rules of communication among students, teachers,	postgraduate medical education,
patients and their relatives according to the standards are	which can affect the labor market.
determined.	

According to the standard "MISSION AND OUTCOMES" 23 criteria are disclosed, of which 4 have a strong position, 19 - satisfactory and 0 - suggests improvement.

STANDARD "EDUCATIONAL PROGRAMME"

2.1 Teaching approach

2.1.1 EPP "Medicine" (https://bit.ly/3Ff4sD1) is developed in accordance with the TS and "Regulations on educational programmes in HE" (https://bit.ly/3COY2K8).

The programme is based on Law of Ukraine "On Higher Education", The National Qualification Framework, Methodical recommendations on HE standards development (as worded in the Order of the MES of Ukraine of 30.04.2020 №. 584).

Students receive a master's degree in medicine in the field of 22 Health in the specialty 222 "Medicine" with professional qualification of a Physician.

EPP is available at the University website with the disciplines logically arranged to ensure that a student acquires related and specialty competencies (SC) (Annex III). EPP is implemented in a logical order of disciplines in the curriculum (CR) (https://bit.ly/3Fk7Mg6) with their horizontal and vertical integration and growing complication in theory and practical skills. The vertical integration is realized through the relations between the subjects taught within various fundamental specialties ("Human Anatomy", "Histology, Cytology, Embryology", "Medical Biology", "Medical Physics", etc.), social and humanitarian specialties (the Integrated course "Democracy: principles, values, mechanisms", etc.), main clinical specialties ("General Surgery", "Propaedeutics of Pediatrics", "Propaedeutics of Internal Medicine", etc). The horizontal integration is presented as a spiral: for example, studying the disciplines "Life safety, basics of bioethics and safety", "Hygiene and ecology", "Microbiology, virology and immunology" on the first and the second year of education forms the basic skills in interaction with a patient and expertise in the environmental impact on the human body, which increases the clinical competency on the third year in the disciplines such as "General Surgery", "Propaedeutics of Pediatrics", "Propaedeutics of Internal Medicine". The expertise and skills gained in these specialties are crucial for successful mastering of the clinical specialties of the 4th -6th year.

EPP "Medicine" is annually reviewed to maintain its quality, in accordance with the regulatory framework and recommendations of the CHEQA and is renewed/upgraded if required. EPP is upgraded through its content alteration, except for the aims, programme competencies and LO specified by the EPP Standard. The components are reviewed and renewed on the basis of external and/or internal assessment of EPP quality assurance, by initiative of the guarantee or the project task force, of the developers or key stakeholders to consider the changes in the EPP medical field and in the labour market.

Modifications involve the measures as follows:

- the content relevance and graduates competency to start the professional activities is assessed by labour market representatives with the ECE involved;
 - the organization of educational process is assessed by the students;
 - students' success and academic achievements are monitored;

- employment and further staff growth of the graduates are analysed and, if possible, the results are compared with the results of graduates of similar programmes from other higher education institutions;
- the syllabus is compared to the syllabus of other higher education institutions, primarily of the foreign ones, which are the leaders at the educational service market in this field;
- the university's positions in thematic and institutional rating projects in the specialty, professional questionnaires, etc. are checked.

WPG led by the guarantor constantly monitors the content of CR and EPP, assesses the degree of vertical and horizontal integration of disciplines by evaluation and approvement of the work programme for each discipline in order to take into account the content availability, final LO, practical skills and their compliance with SC. WPG offers and monitors how modern methods of teaching, learning, assessment and methodological support of the discipline are implemented. The proposals to improve the quality of the EPP in order to focus on the employer and to fully satisfy employer's requirements and expectations are further submitted to the sessions of ECE, the MI Council for quality assurance.

Based on the reports of the MI Council for quality assurance and the monitoring results of the CHEQA, SSU assesses and suggests some measures in order to enhance academic quality at different levels (https://bit.ly/3blz7l8). The upgraded EPP including explanations of its modifications, recommendations of ECE and reviews is reapproved in the appropriate manner.

Employment statistics from other universities is not publicly available, so we provide information only on our EPP for the last 3 years. In 2019, the number of graduates employed in Ukraine and abroad was 203 and 5; in 2020 - 243 and 4; in 2021 - 215 and 0, respectively.

- 2.1.2 EPP "Medicine" builds integral, general and SC. All educational components are divided into the cycles of general and professional-practical training to build the competencies given in EPP. SSU uses a credit technology of study. The ECTS credit is a notional, averaged unit of 30 hours of student workload for passing a course (contact hours, any form of individual study). The overall scope of the EPP for master's training is 360 ECTS credits. Fundamental, social-humanitarian, general and specialized clinical disciplines are divided into mandatory components (270 ECTS credits; 75%) and elective components (90 ECTS credits; 25%). Cycles of general training form the skills in clinical thinking, analysis and synthesis, ability to adapt and to act in a new situation, to master the skills in search, processing and analysis of information from various sources. Language disciplines build communication skills in the state and foreign languages; disciplines from the cycle of professional and practical training disciplines form professional PLO.
- **2.1.3** AS uses individually-oriented educational technologies: differentiation, assessment of each student, including assessment at practical studies, methods of teaching and learning in

accordance with the Guidelines "General requirements for the structure, content and design of the work programme on the discipline" (https://bit.ly/3wrTTJv). During the development of the work programme, modern teaching methods, assessment and features of the discipline are considered. For example, a practical class is based on pre-prepared methodological material grounded on the discussion of clinical cases in small groups, on modern scientific data analysis during discussion/debate. Training sessions can be organized in a virtual environment (such as online conferences, webinars, etc.) using Microsoft Teams and the like, the participants communicate through the MIX platform, e-mail, chats, etc (Annex XVI).

2.1.4 The major purpose of EPP "Medicine" is to develop a work programme based on the correlation between the final LO and competencies required for professional development and also to create a conscious individual educational path. Innovative teaching methods and modern educational content are designed to increase the student responsibility, their awareness of self-learning importance and necessity to maintain these qualities throughout their professional activity. Independent, individual and research work of the students is of paramount importance. Its share varies depending on the role of discipline in achieving the general competencies (GC) and the specialty competencies (SC) provided by the EPP. Thus, the student acquires the skills to learn, to master upto-date knowledge and to apply them in practice, to understand the subject area of professional activity, to adapt to a new situation, to make reasonable decisions; to work in a team; the student acquires skills in interpersonal interaction, becomes persistent in tasks and responsibilities.

Responsibility for individual/own learning process may be stimulated, prepared and supported with the principle of reflexivity, which increases the student consciousness in learning, which is the basis of self-motivation. Implementation of TBL, role-playing, training discussions/debates, CBL encourages the student responsibility for the learning process. The above enlisted skills motivate the student in the learning process and develop his clinical and critical thinking. This approach allows the student to realize the necessity of learning throughout the professional activity in order to acquire and maintain SC, and increases the responsibility for the educational process. Each teacher has the most recent teaching strategy for a discipline in accordance with the andragogical model, which identifies the needs of students through analytical and cognitive skills and group discussions.

The strategy and technique used by AS are adapted to the student needs. Application of visual materials promotes better perception and understanding of information. Practice solidifies new knowledge. Academic environment with its respect for the student contributes to the formation of personality and increases the effectiveness of training throughout the professional career.

2.1.5 Fully conscious of the role of HE institutions in national and regional policies, with the Sustainable Development Goals and other relevant international and national obligations of Ukraine,

in particular, the Constitution of Ukraine (https://bit.ly/2XUrAXB), the Labour Code of Ukraine (https://bit.ly/3mlt4Du), Laws of Ukraine "On Education" (https://bit.ly/3vBK9w7), "On Higher Education" (https://bit.ly/3vR49e4), "On Principles of Preventing and Combating Discrimination in Ukraine (https://bit.ly/3jKY91O)", "On ensuring equal rights and opportunities for women and men" (https://bit.ly/3pIqr0I) taken into account, SSU in its activities demonstrates the provision of human rights, equal opportunities, fair treatment, creates conditions in the university and in society as a whole, where respect and the dignity of each person is valued, with an emphasis on vulnerable groups. SSU respects and takes into account diversity, which, as a result, contributes to success at the individual, corporate and social levels according to the Code of Corporate Culture (https://bit.ly/3k8fNNa), "Regulations on Academic Integrity and Ethics of Academic Relations" (https://bit.ly/3wj41V4). "The Commission on Ethics and Conflict Management has been established (https://bit.ly/3GMMVUt) and empowered to resolve relations and conflicts arisen from implementation of educational, scientific-pedagogical, scientific, scientific and technical activities between all categories of university staff, students and other individuals.

Detection and resolution of conflict situations is regulated by the Rector's Order "On Prevention of Corruption" (https://bit.ly/3CNmCuT), "Regulations on the organization of education quality assessment by students when studying the academic disciplines" (https://bit.ly/3CoPYj3), "Regulations on the Commission for the Prevention of Student Offenses" (https://bit.ly/3BnQQ6d), "SSU Equality Policy" (https://bit.ly/3jKHTOo). The structures that provide EP guarantee gender, nationality, language, religion, socio-economic status, and physical abilities non-discrimination. A gender resource center works in partnership with the office of the F. Ebert Foundation (https://bit.ly/3mlC6jN).

2.1.6 In order to facilitate the adaptation of the first-year students to studying, to create optimal conditions for their educational, scientific and extracurricular activities, to involve them in social activities and to a student self-government, "The Institute of Student Supervision" was established. The school of curatorship is regulated by the "Regulations on the studentcurator"(https://bit.ly/3CnMD3O) and the "Regulations on the curator of the academic group" (https://bit.ly/3Bqg4Rc).

In order to implement state policy in national, patriotic, ethical, aesthetic, legal, environmental education of young students; to form a positive microclimate, atmosphere of tolerance, mutual understanding and cooperation, a department of extracurricular activities for the young students has been created; it is regulated by the "Regulations on the department of extracurricular activities for students" (https://bit.ly/3EqQ3U0), which allows the group curators, deputy directors for extracurricular activities, dormitory issues, sports and mass events, student groups to be involved into educational process.

2.1.7 For in-depth training in certain activities and therefore for the implementation of an individual CR with responsibility for the studying, the students may choose disciplines during the training period. Student independence grows year after year, since student independent work (SIW) is the basis of self-preparation from the first year, it develops their ability to analyze theoretical and practical material, promotes creative thinking, expressing thoughts orally and in writing, helps defend their opinion and argue their position. In the course of studying, the independent search for knowledge, skills and abilities comes to the fore, for example, by studying and analyzing international recommendations for the diagnosis and treatment of diseases.

2.2. Scientific method

2.2.1 The SSU Charter states that scientific activity with its large-scale international orientation and the use of innovative technologies is the main dominant of development characterized by the organic unity of the scientific and educational process. Support of research and innovation student activities is an integral part of the SSU development strategy. The university promotes development of scientific potential through the RBL. This method is a mandatory component of the disciplines of the student professional training unit and it ensures development of students' analytical and critical thinking, as well as acquisition of a theoretical and applied scientific base. EPP includes the students training elements essential for formation of the scientific thinking, for application of research methods, as stated in common competency, professional competency, programme LO. Fundamentals of scientific activity are provided by "Integrated course" Fundamentals of Academic Writing", "Medical Informatics". An important stage in understanding and mastering the principles of scientific methodology is studying "Fundamentals of Scientific Research in medicine", the achievements of modern medicine based on scientific evidences are considered in the course of all clinical disciplines.

The active position of the Scientific Society of Students, Postgraduates and Young Scientists (SSSP) of the Medical Institute contributes to the development of students" research activities. The activity of SSSP is regulated by the target complex programme "Organization of student scientific work in harmonious combination with educational process" (https://bit.ly/3aRf6mw) ram, by provisions on SSSP (https://bit.ly/3jwH2AD), on grants (https://bit.ly/3mmJxaq), on the activity of youth scientific creative associations (https://bit.ly/3jL21Qn); on the organization of the All-Ukrainian competition of student research papers in specialties (https://bit.ly/310YaYQ); on promotion of students and their supervisors for the achievements (https://bit.ly/3Ge3JTQ).

The latest results in medical science and practice based on the research are being introduced into the educational process, implemented in lectures, practical and laboratory classes and documented in the form of acts of implementation. The results of scientific achievements of university AS (scientific publications, patents for utility models and inventions) are recommended for students

and are reflected in the supplementary sources of academic disciplines syllabi. Evidence-based training is designed to provide continuing education for future physicians.

2.2.2 An integral part of high-quality EPP is upgrade and continuous update of the lecture and practical class content in all disciplines through involving the research results into the teaching process for general medical and specialized training of future physicians. It is a common practice for MI to hold open lectures, seminars, webinars and briefings with leading biomedicine experts from around the world. For example, in 2021 alone, 16 webinars and seminars were held in a hybrid format with representatives of foreign universities and companies involved (https://bit.ly/3w3bB5X).

The students studying on EPP can use the library and information center, individual libraries and library points at educational and scientific structural divisions of the university, in particular in MI. There are also virtual electronic reading rooms and all publications in a variety of languages, including monographs, training manuals, textbooks, dictionaries, etc are available. Students can also browse the literature using traditional search tools in the library or use free access to the Internet and databases. Students on EPP have access to databases as follows: Scopus, Web of Science, Springer Nature, USMLE-Rx, Wiley, APA's PsycTherapy, Grammarly, Coursera for Campus, Access Medicine, Wolters Kluwer Health / Ovid, MedOne Plastic Surgery, Academic Search Ultimate (EBSCOhost), eSSUIR, E-catalogue of the SSU Library, scholarly periodicals of the Vernadsky National Library of Ukraine NAS of Ukraine, WHO, BioMed Central, British Medical Journal (The BMJ), Cochrane Library, eMPendium, FreeBooks4Doctors, FreeMedicalJournals, Wiley Open Access, PubMed Central, PloS, Bookshelf, Child Neurology Society, Hardin MD, Harvard University, MedBioWorld, MedBioWorld, Medknow Publication, MedPix, Nature, National Cancer Institute, Pediatric Neurology Briefs, PracticeUpdate, Royal Society of Chemistry (Royal Chemical Society), Academic Journals, Academic Journals Database (Switzerland), Directory of Open Access Books (DOAB), Directory of Open Access Journals (DOAJ), Elsevier, Hindawi Publishing Journals, HighWire Press, HINARI, Journals4Free, Open Academic Journals Index (OAJI), Oxford Journals, Google Scholar, Healthline, The Directory of Open Access Repositories (OpenDOAR), E-Books Directory, Europe PubMed Central, Crossref, PubMed, Taylor & Francis.

In the course of clinical disciplines, the students study the principles of evidence-based medicine in terms of making scientifically valid decisions, analyzing the results of clinical trials in order to make the diagnosis and treatment through forming analytical and critical thinking. The majority of university teachers of clinical departments have GCP certificates and experience in international clinical trials, which ensures the above skills formation among undergraduates. Students also use methodical material prepared by the teachers, monographs, articles from periodicals, statistical databases. Methodical and scientific material can be provided both in printed and in electronic form. CSTEI performs organizational and methodical work in intellectual property

protection, provides patent search in the national and world databases. Teaching and learning aids support achievement of the defined EPP goals and PLO because of the content enrichment and regular update. They are available at the site of the department, accessed through Google software products, e-learning tools OCW (https://ocw.sumdu.edu.ua/), MIX (https://mix.sumdu.edu.ua/), LecturED (https://elearning.sumdu.edu.ua/).

Mandatory is the training in solving clinical problems, which is held in the course of general training disciplines ("Human Anatomy"; "Histology, cytology, embryology"; "Physiology"; "Microbiology, virology and immunology"), and all disciplines of professional training. Clinical problem solving is based on the PBL and promotes the development of logical thinking, improves the ability to analyze and synthesize information. First of all, students get acquainted with the clinical task, analyze the data, then discuss it, giving the opinion and justifying the conclusion, give practical recommendations for diagnosis, treatment and prevention of a disease.

- **2.2.3** The ability to critically evaluate the literature and scientific data is formed in the course of disciplines "Fundamentals of Scientific Research", "Principles of Evidence-Based Medicine". During the study of clinical disciplines, undergraduates prepare reports or presentations followed by discussion in a group of students and a teacher to form the student's ability to evaluate the literature critically
- **2.2.4** In order to promote research activities among students, to support their involvement, in particular junior students, into science, the SSSP of SSU (https://ntsa.sumdu.edu.ua/) uniting about 450 people has been established. The Board of SSSP serves as the Council of Young Scientists of the University. To develop the scientific potential of the students who study and/or work in MI, numerous seminars and conferences with leading experts from all around the world are held (https://bit.ly/3w3bB5X). Annually MI SSSP organizes the International Scientific Conference "Biomedical Perspectives" with English as a working language and invites lecturers from Ukraine and the European Union (https://bit.ly/3C7KCIP).

There are more than 15 scientific foundations of students and young researchers working at MI departments to involve talented young people into scientific work. Within the foundations, the educational seminars, trainings, summer schools are held, both on professional issues and on organization of research activity, grant work, CV preparation, etc. As a result, more than 20 students have publications in database Scopus journals, 5 students have an h-index. Teams of young MI scientists actively submit applications for research funding at the national and international levels (https://bit.ly/3GuHKbo).

An important element of the SSSP work is participation in international mobility for talented researchers and in their comprehensive assistance. Every year, young researchers apply for and implement the projects under the DAAD, Fulbright, Slovak National Scholarship, Latvian

Government Scholarship, Canadian Academic Exchange Programme and others. In 2019, thanks to the active and conscientious work of MI students, the European Medical Association of Students (EMSA) granted membership to the Sumy branch (EMSA-Sumy). In 2020, students from Bulgaria were trained in MI under the Erasmus+ program. Based on the results of joint research with foreign partners, more than 10 scientific publications are annually published in journals registered by the international database Scopus, including the publications of Nature Publishing Group (https://bit.ly/3EobeWT).

Young researchers integrate into the European scientific space through their participation in professional associations, including the European Atherosclerosis Society, the European Biomaterial Society, the Pathology Society, the European Respiratory Society and others. Every year more than 30 young researchers take part in international and European congresses, receive grants from the Open Medical Institute (Austria) to participate in Salzburg Seminars on professional and scientific training (https://bit.ly/3pP93ay).

Students and young researchers work in scientific laboratories and centers, including paid job, in particular, AS of EPP and students are involved in the paid scientific research work (SRW) and SRW in after-classes time (Yu. Varava, Yu. Dudko, I.Yanko, O. Birin, B. Dubovsky, D. Omelchenko).

Innovative activity of students and young researchers, students, in particular, is realized through participation in applied scientific developments, for example, creation of new biomaterials, development of nanosensors and methods of tumor early diagnosis. The results obtained in the projects are presented at the start-up contest "Sikorsky challenge" and MBioS Challenge (https://bit.ly/3qsE701). Since 2017, there has been a system of internal grants to support students and young researchers. During this time, 9 projects with a total cost of UAH 135,000 have been implemented, which raises additional funds for reagents, equipment, wages and business trips required for publishing the results of a project (https://bit.ly/3vOYOvr).

2.2.5 The content of EPP is regularly corrected by reviewing and modifying the syllabi of clinical disciplines mainly, which is inevitable after the update of national and international clinical guidelines based on evidence-based medicine. As EPP is focused on building the SC that meet the National and European qualifications frameworks and WHO standards in various fields, AS constantly implements the most advanced national and international achievements, provisions and recommendations of international manuals into the learning process. Thus, the CR of disciplines, lecture courses, manuals, compendiums and guidelines, etc. is updated. To keep the teaching and learning materials in the main stream with the standards of European higher medical education considered, the University during the reporting period has purchased textbooks of international

publishers McGraw Hill, Wolters Kluwer, lippincott Williams & Wilkins, Elzevir, totaling about 250,000 UAH.

2.3 Learning content

2.3.1 The main biomedical disciplines are included in the CR and are taught during the first three academic years (Annex IV), build skills in abstract thinking, analysis and synthesis of information, provide basic knowledge for further study of clinical disciplines. These disciplines are fundamental and are a theoretical basis for the disciplines of the clinical unit: they allow students to form a concept of morphology of organs and systems, microbiocenosis of the human body, the mechanisms of human disease based on biochemical, physiological and pathomorphological disorders. The -biomedical unit was upgraded through problem-oriented studying within the Tempus project "Implementation of innovative educational strategies in medical education and development of the International Network of National Training Centers" by expanding case technologies, with game scenarios and virtual patients involved. (https://bit.ly/3CAVGy8).

Behavioral and social sciences (Annex V) are studied along with biomedical disciplines, which provides knowledge integrated with clinical disciplines, methods, skills and decision-making capabilities required to understand the socio-economic, demographic and cultural aspects of medical problems, the spread, dissemination and consequences of health problems. Competence approach involves the necessary competencies that provide self-determination, socialization, development of individuality and self-actualization. These disciplines form analytical and critical thinking skills, as well as teamwork ability, adequate perception of social, ethnic, religious and cultural features.

Studying the social sciences, the students master the methods of harnessing their know-how in medical, preventive, socio-medical practices which are aimed at maintaining and promoting health and include encouragement of a healthy lifestyle and prevention and spread of diseases, their timely diagnosis, finding reasons for their occurrence and development, as well as building a set of measures to eliminate and prevent the negative environmental impact on human health.

2.3.2 The students develop clinical decision-making skills through specialized AS and practitioners involved in EPP. The practical activity of the student is controlled by the teacher; during their clinical practice, healthcare centre doctors are involved. The students are constantly supervised by the teachers, who mark not only the performance of professional duties, but also the adherence to ethical and deontological norms, bioethical principles in different circumstances. Clinical skills are perfected on models in simulation classes, in safe conditions for real patients.

Clinical decision-making is constantly improved during training at clinical departments, mainly within the framework of the SC (Annex VI). Clinical work includes practical classes at the patient's bedside and further discussion at the academic group in the presence of a teacher: clinical signs of the disease are successively analyzed, possible options are elaborated, a preliminary

diagnosis is established, diagnostic tactics is developed, the results of laboratory and instrumental studies are analyzed. The modular structure of clinical disciplines allows students to observe the course of the disease and treatment, performance of medical manipulations. In clinics, students also participate in morning meetings, unit grand rounds, reports and discussions at clinical, pathoanatomical conferences in order to improve knowledge and practical skills in diagnosis and treatment, prevention. Clinical decision-making is mastered by discussing errors in medical practice during the analysis of specific clinical cases.

- **2.3.3** Communication skills formation contributes to the comprehensive development of the student and enables them to communicate freely in any professional and social activities. These skills are formed in the course of general training disciplines: Integrated course "Fundamentals of Academic Writing", English/Ukrainian as a foreign language, Latin and medical terminology; in the course of clinical disciplines during patient cooperation in practical classes, internship (Annex VII).
- 2.3.4 The discipline "Life safety, basics of bioethics and life protection", as well as key aspects of medical ethics in the context of all clinical disciplines allows students to apply professional knowledge, skills and abilities in different clinical situations; to take social and ethical responsibility for the decisions made; and to implement ethical and deontological principles in medical professional activity (Annex VIII). Studying medical ethics as a part of the discipline "Fundamentals of Scientific Research in Medicine" suggests not only theoretical, methodological and applied criteria for biomedical research, but also contains information on ethical research aspects at any research stage and on Helsinki Declaration moral requirements as to the research with human being involved.
- **2.3.5** Public health course offers public policy, trends in health care, the structure and functions of the health care system, structure and its functioning system (Annex IX).
- **2.3.6** Medical jurisprudence course is presented in the structure of the discipline "Hygiene and Ecology. Public Health". It ensures skills in using the basics of legal awareness of the patient rights in doctor's professional activities, as well as doctor's own rights and responsibilities to prevent professional errors; skills in getting the informed consent, in awareness of legal, civil and criminal liability of medical staff and the reasons for its use as well (Annex IX).
- **2.3.7** Management in health care course informs the students on the basics of the management industry structure and operation and allows further graduation of highly skilled professionals capable of holding management positions. With reference to the health care reforms, the discipline forms a coherent concept of future management in medicine as a promising career choice; equips the health care managers with skills in making and executing the management decisions (Annex IX).
- **2.3.8** Patient safety is ensured by the compliance with sanitary and hygienic conditions, epidemic control norms, fire safety rules, by the compliance with local rules of a healthcare centre. For example, within the discipline "Life safety, basics of bioethics and life protection" students

receive basic knowledge in patient safety, within "Epidemiology" they study issues of epidemic control measures, within all clinical disciplines and practice they become aware of ethics and deontology issues (Annex X).

2.3.9 EPP is mainly focused on the formation of medical competencies in view of current trends, international standards of doctor professional activity suitable for acquiring additional qualifications in postgraduate education and for continuing higher education training with compulsory joining the PhD educational programme. Practical training, which acquires the competencies for further professional activity, with the needs of public health, trends of modern world development in the context of globalization and unresolved epidemiological challenges considered, is provided by disciplines (MC 16, 23-34) and practical training (MC 37-39). EPP provides an opportunity to acquire practical professional and social skills during practical activities in various health care institutions. To promote further student research activity, EPP provides a set of educational components aimed at acquiring theoretical knowledge, know-how and other competencies sufficient to generate new ideas, to solve complex problems of research and innovation, to master the research methodology. The research basics are provided by "Integrated course" Fundamentals of Academic Writing", "Medical Informatics" and "Fundamentals of Scientific Research".

Development of knowledge, skills and thinking of the graduates is due to the promotion of comprehensive development through available opportunities and encouragement of academic mobility. SSU has established the Student Agency for Academic Mobility (STAM) regulated by the "Regulations on the Student Agency for Academic Mobility" (https://bit.ly/3mn8cvL). Students involved in research can enter to PhD course, which EP was certified with ORPHEUS in 2018.

2.3.10 EPP is reviewed in order to identify the most clinically significant sections to be further covered in lectures and practical classes. EPP is annually updated to take into account scientific, technical and clinical progress, changes in public health. New optional components (OC) "Modern problems of molecular biology" and "Modern methods of genetic diagnostics have been involved to integrate progressive trends of modern medicine.

The Covid-19 pandemic provoked the online studying under EPP and the educational process became possible in quarantine, but it triggered EPP revision and upgrade, involved changes in teaching and learning methods. This type of training has ignited creativity, increased proficiency in modern information and digital technologies. In order to get positive results from online studying, the teacher is forced to give interactive classes (on Google Meet, Zoom, Microsoft Teams platforms), to involve all students in work (TBL), to master and use various psychological techniques to keep the audience's attention, to facilitate learning process and to encourage more active participation in teamwork. To implement innovative methods of online studying successfully, the university has

developed its own brand new platform - Mix.sumdu.edu.ua and implemented it into the educational process. Lack of a direct contact with patients makes it difficult to acquire communication skills, to comprehend patient management tactics, to assess the patient's general condition, to examine the patient physically and generates the need for CBL (clinical case analysis) and work in a simulation center.

2.4 The structure of the educational programme, composition and duration

2.4.1 EPP and CR on specialty 222 "Medicine" is formed according to of the Law of Ukraine "On Higher Education" with recommendations of the Ukrainian HCM (the Order of the Ukrainian HCM of 18.09.2018 № 1696 "On recognizing some orders of the Ukrainian HCM as invalid", the letter of the Ukrainian HCM "On the curricula of higher education institutions" of 02.10.2018 № 01.6/201/26038). EPP "Medicine" complies with university regulations (https://bit.ly/3EoYsHl, https://bit.ly/3COY2K8).

EPP content is 360 ECTS credits, of these 270 credits are MC, 90 credits are OC. The academic year is split into 2 terms with 16-20 weeks in each (https://bit.ly/3oj1UwH) extended by examination period and clinical practice (Annex XI).

The formation of GC and SC is provided by mastering the blocks of general, biomedical and clinical disciplines, that are studied in sequence in accordance with SLS (Annex III). GC and social skills are formed in the study of disciplines of general and professional training. General training for EPP is provided by educational components MC 1–3, 6, 13. Their focus is on achieving PLO 1–3, 6, 18, 22–25. Mastering basic biomedical knowledge is provided by MC 4–5, 7–12, 14, the focus of which is aimed on achieving PLO 1–5, 9, 10, 12, 14–19, 22. Professional training is provided by MC 15–36, the focus of which is on achieving PLO 1–25. GC are provided by components MC 1–39. To strengthen the level of knowledge in basic biomedical disciplines, a mandatory discipline "Integrated course in fundamental disciplines" (MC14) is introduced, to provide training for professionals capable of solving complex professional problems in medicine, the discipline "Integrated Course of Clinical Disciplines" (MC36) is introduced, that provides the formation of general (GC1–3, 5, 8) and professional (SC1–11) competencies. To develop the ability to conduct research and innovation activities in the field of medicine, the discipline "Fundamentals of Scientific Research in Medicine" (MC35) is introduced to the CR.

The content of EPP corresponds to the theoretical content of the subject area, in particular provides the formation of students' skills to solve typical and complex specialized tasks in the learning process, practical problems in professional activities in health care and research, from the standpoint of evidence-based biomedicine ethics, academic integrity with protection of the rights, safety and well-being of patients; development of language and communication skills and other competencies that are necessary to perform the professional duties of a doctor.

2.4.2 In order to implement the Law of Ukraine "On Higher Education", students have the right to choose academic disciplines within the limits provided by the EPP and working CR, in the amount of not less than 25 % of the total number of ECTS credits (90 ECTS credits).

The EPP and CR provide a capacity of 25 ECTS credits for disciplines aimed at the formation of GC (planned for selection in the 3rd–7th semesters, with a volume of 5 ECTS credits per semester); a capacity of 65 ECTS credits for disciplines aimed at the formation of SC (planned for selection in the 3rd–11th semesters with an even distribution by semesters, taking into account the peculiarities of preparation for Single State Qualification Test (SSQT); in the 3rd–7th semesters the list of EC includes disciplines of English-language professional training with the formation of groups according to the entry level of English language proficiency, determined by the department, which is assigned to teach the relevant discipline.

There is a normative support introduced at the university for the choice of subjects by academic disciplines: Regulations on the organization of the EP at SSU (https://bit.ly/3EoYsHl), orders of the rector "On the organization of teaching disciplines of optional choice" (https://bit.ly/2XDLuWx) and "On automated support of the registration process for the study of OC".

Measures to ensure the right of seekers to free choice of disciplines:

- 1. Preparatory work, including each academic year until October 1: acquaintance of students (organizational meeting of freshmen) with the peculiarities of the educational process and the structure of CR in terms of MC and OC; informing applicants about the procedure, terms and features of registration for the study of OC; involvement of students to all forms and levels of education in the use of "Electronic Personal Account" to get acquainted with the list of disciplines and make their own choice;
 - 2. Methodical work on the formation/updating of catalogs of OC:
- by October 31 of each academic year, CQAHE MI submits proposals for the formation of a catalog of OC focused on the development of GC, in particular, by forming a list of OC or blocks (minors), for their further approval by CQAHE SSU. Students' self-government bodies and employers are involved in the formation of the catalog.
- by December 30 of each academic year CQAHE MI updates the list of OC taking into account the results of the survey of students for the organization of their study, the results of labor market monitoring, which revealed their inconsistency with its needs, etc.;
- 3. The registration procedure for the study of certain OCs is carried out by the students using the information service "Electronic Personal Account" for the next academic year during March-May of the current academic year. According to the results, the groups (flows) are formed taking into account the minimum and maximum limits set by the OC catalog. If the group is not formed, students

can realise their right of free choice of the disciplines through training using electronic resources (OCW SSU, distance learning courses, mass online courses, etc.) headed by a teacher.

The full list of OC cycles of general and professional training is provided in the relevant catalogs on the MI website (https://bit.ly/3nC836X) for students.

2.4.3 In order to develop the necessary skills and abilities within the competencies defined in the EPP, the combination of practice and theory in the process of first-year training in the study of "First Aid" enables to obtain primary professional skills and ones in the emergency care. Mastering practical skills takes place in the 2nd year in the framework of "Patient Care", 3rd year - "Nursing". This is combined with the training in a simulation center during practical classes, which allows students to gain practical skills, bring them to automatism in order to prevent possible mistakes in real clinical practice. In the future, the acquired knowledge and skills are practiced in 4-6 courses during the "Industrial Medical Practice" and work at the patient's bedside during practical classes in various departments (Annex XXV).

EPP provides the formation of clinical skills in a logical sequence. The amount and complexity of clinical skills increase within the study of biomedical, clinical and social-humanitarian disciplines. After mastering the skills of communication with the patient, patient care and basic manipulations, the student deepens the acquired knowledge and adds new practical skills necessary for professional activities in order to provide appropriate medical care to the population. EPP regulates the level of practical skills depending on the amount of theoretical knowledge and ensures the acquisition of competencies that are sufficient for the implementation of practical skills.

The EPP includes issues of health promotion and preventive medicine that are implemented during the study of "Life safety, basics of bioethics and life protection"; "Hygiene and ecology", as well as in all clinical disciplines, also the attention is paid to primary and secondary disease prevention.

General requirements for the organization of the EP are declared in the Regulations on the organization of the EP in SSU. Analysis of the distribution of educational workload for EPP "Medicine" in terms of types of educational work is: classroom work – 5038 hours. (46.6%), of which: 574 hours are lectures (5.3%) and 4464 hours (41.3%) practical classes. The first year of study – 796 hours, 2 years – 824 hours, 3 years – 862 hours, 4 years – 864 hours, 5 years – 866 hours, 6 years – 840 hours. SIW is 5762 hours (53.3%), of which: 1004 hours account for the first year of study, 976 – 2nd, 938 – 3rd, 936 – 4th, 934 – 5th and 960 for the 6th year. All practical classes in a foreign language, disciplines of biomedical and professional orientation are held in small groups (10–15 applicants). Lectures (574 hours – 5.3%), practical classes (4464 hours – 41.3%), SIW (5762 hours – 53.4%). Practical training includes "Patient Care", "Nursing" and "Industrial Medical Practice" and amounts to 15 credits. 50% of practical classes are practical training.

- **2.4.4.** EPP is developed taking into account the requirements of the current legal framework of Ukraine, in particular: the Law of Ukraine "On Education" (https://bit.ly/3vBK9w7), the Law of Ukraine "Of Higher Education" (https://bit.ly/3vR49e4), Licensing conditions for the provision of educational services in the field of HE (https://bit.ly/3EkdgHg), 7 level of the National Qualifications Framework (https://bit.ly/3qnoWp5), Recommendations on the structure and content of the work program of the discipline of MHU (https://bit.ly/3qxW4u6).
 - **2.4.5** Recruitment of applicants is based on complete general secondary education (CGSE).
- 2.4.6 According to the Order of the MHU dated 22.06.2021 № 1254 "On approval of the Regulations specialization" on internship and secondary medical (pharmacy) (https://bit.ly/3wy066U) KROK-2 and OSCE; electronic system of the corresponding rating distribution – the graduate of HEI will independently choose the desired speciality, base of internship and HEI where will pass preparation in an internship, and also defines the priorities among them (it is possible to define TOP-5). Admission to graduate school is based on a master's degree in 222 Medicine or educational qualification level of a specialist in "Medical Affairs" according to the "Rules of Admission" taking into account the competent ability to conduct research in this specialty (https://bit.ly/3HbSDiX).

2.5 Relationship between learning and health care practice

2.5.1 The EPP model is integrated, which allows to ensure the relationship between fundamental and clinical disciplines, which is important for the formation of students' motivation and interest in learning basic biomedical disciplines, which is essential for solving specific clinical problems. Integrated training helps future physicians to combine facts to get a complete picture of the clinical situation and to develop a holistic approach to the treatment of each individual patient.

Concentric (spiral design) method of building EPP by multiple mastering of one competence in different disciplines improves a better mastering of certain competencies. For example, the formation of SC1 "Ability to collect medical information about the patient and analyze clinical data" is formed sequentially in the disciplines of all courses from 1 to 6: 1 course – "Human Anatomy", "Histology, cytology, embryology"; 2nd year – "Physiology", "First aid"; 3rd year – "Integrated course of fundamental disciplines", "Hygiene and ecology", "General surgery", "Propaedeutics of internal medicine", "Radiology", "Propaedeutics of pediatrics", "Nursing"; 4th year – "Internal Medicine", "Obstetrics and Gynecology", "Pediatrics", "Surgery", "Public Health, Health Care Management", "Neurology, Psychiatry and Addiction", "Industrial Medicine Practice"; 5th year – "Internal Medicine", "Obstetrics and Gynecology", "Pediatrics", "Surgery", "Infectious Diseases, Epidemiology and Principles of Evidence-Based Medicine", "Industrial Medicine Practice"; 6th year – "General Practice (Family Medicine), Anesthesiology and Intensive Care", "Internal Medicine", "Obstetrics and Gynecology", "Pediatrics", "Surgery", "Integrated Course of Clinical Disciplines".

- **2.5.2** The degree of complexity of practical skills and the level of student independence increases during the clinical practice "Patient Care" "Nursing" "Industrial Medicine Practice" from "supervised action" for 2–3 courses, "mentoring actions" 4–6 courses, to "independent work" during internship.
- **2.5.3** Practical work are supervised by AS and staff of the HCI, who are appointed by the director of HCI, which allows to control the quality of practical training and effectively use the health care system.
- **2.5.4** Practical training of students is one of the basic components of the process of training physicians, and its purpose is to deepen theoretical knowledge, develop practical skills, create conditions for the earliest possible integration of future graduates into practical medicine (https://bit.ly/30lqxke).

Practical training of students is carried out on clinical bases, in specialized classes and laboratories, in university clinic during practical employment at studying of clinical and biomedical disciplines, and during obligatory passing of practices (Patients Care 2 course, Nursing 3 course, Industrial medicine practice 4–5 course). Training in hospitals, which are clinical bases of MI, is carried out in accordance with the Resolution of CMU № 1337, 28.12.2020 (https://bit.ly/3FaQn9d). The rules of internal labor regulations of the health care institution apply in the same way to all participants in the educational process. Patients' rights are ensured in accordance with the EPP and signed informed consent by the patient for the presence of students in diagnostic and treatment procedures and for the participation of AS in the provision of medical care.

Applicants' internships are regulated by the relevant regulations on the organization and conduct of internships for students of higher medical and pharmaceutical educational institutions of I-II levels of accreditation (https://bit.ly/3BZx4OI) and by the Regulations on internships for students of higher educational institutions of Ukraine, SSU, MI (https://bit.ly/3Db7JCM, https://bit.ly/3eU1XLe, https://bit.ly/3JBD6dg). The content of practical training is reflected in the syllabuses MC 37–39, which are posted on the MI website (https://bit.ly/3cdlC7D).

2.6 Training management

2.6.1 Decentralization of certain technologies to the institute level has been done by introducing positions of deputy directors responsible for various areas of activity (EP, scientific, international, informational, career guidance, extracurricular, sports, etc.) in SSU; the role of the institutes' directors has been strengthened as an important part of general university management.

A system of regular, in particular annual, reporting by managers at all levels to the teams they lead and to senior officials has been introduced. Student self-government are involved in the management of certain processes on a systemic basis.

The management of EPP "Medicine" is provided by the director of MI, the head of the graduating department, the guarantor of WPG. The EPP is considered and approved at the meetings of focus groups, WPG, ECE, CQAHE and the Academic Council of MI and SSU.

2.6.2 Revision of the EPP is carried out once a year in order to timely modernize it, improve the learning process and master the necessary competencies. Focus groups and WPG are involved in the process of creating and updating the EPP. The focus group meetings are attended by all members of the WPG, as well as representatives of the AS (for example, the director of the MI Prof. Loboda A.M, Prof. Pohorelov M.V, Prof. Smiianov V.A, senior teacher Falko V.V, associate professor Pohorelova O.S, assistant Dudchenko I.O, assistant Kovchun A.V), graduates (intern doctor Mishchenko S.R, head of the pulmonology department of NCO SRC "SRCH" Cherednichenko N.A.). employers (for example, the head of the Department of Health of the Sumy Regional State Administration Butenko S.P, the director of NCO "CCCH" SCC Dominas V. M.) and applicants (for example, Kust B.V., Krasii E.S.). The following composition of the WPG has been approved: head – prof. Prystupa L.N; members – AS (Prof. Ataman Y.O, Assoc. Prof. Petrashenko V.O, Assoc. Prof. Golubnycha V.M., Assoc. Prof. Fadieieva H.A.), employers (director of the SRCH for War Veterans Savenko I.I, Chief Physician of the Medical Center "Hospital of St. John Paul II", Poznan, Poland Leslaw Lenartowic), students (Varava Julia and Vireko Andrew). EPP is posted on the university website for public discussion for 1 month. The concept of development of educational activities for EPP "Medicine" takes into account the regional levels of morbidity in the region and the problem of staffing of medical positions (https://bit.ly/3ErpEVR), as well as the interests of applicants through regular surveys on the overall quality of EPP (https://bit.ly/3B2W3zZ).

Approval EPP by WPG is carried out taking into account reviews from external reviewers, including representatives of the academic community and employers (Vice-Rector for Academic Teaching Affairs and Postgraduate Education, Professor at the Department of Internal Medicine No.1 of Poltava State Medical University, Professor at the Department of Internal Medicine No.1, Skrypnyk Ihor; Vice-Rector for Academic Teaching Affairs, I. Horbachevsky Ternopil National Medical University, Professor at the Department of Social Medicine, HealthCare Organization and Economics with Medical Statistics Shulhay Arkadiy; Director of the SRCH Horokh Volodymyr; Vice-rector for European Integration and Academic mobility, Medical University, Pleven (Bulgaria) Diana Pendicheva).

Consideration of the WPG materials and its positive decision is the basis for the transfer of its ECE, CQAHE MI and SumDU, the Academic Council of SSU. The ECE includes: the head of the Department of Health of the Sumy Regional State Administration Butenko S.P, the director of NCO "CCCH" SCC Dominas V. M.; chief obstetrician-gynecologist of the region, head of the regional center of family planning Krasnokutska V.V, director of NCO "Clinical Hospital N5" of SCC

Petrenko V.Y., director of NCO "Sumy Regional Diagnostic Center" Zhdanov Y.O., director NCO "Regional Clinical Perinatal Center" of SRC Kuzomenska M.L, Director of NCO "Sumy Central District Clinical Hospital" of Sumy District Council of Sumy Region Potseluyev V.I, Deputy Director of the Medical Institute, Coordinator of Relations with Graduation Departments Primova L.O. (https://bit.ly/3cco91N). To CQAHE MI involved 26 representatives of the administration of MI, AS, applicants (student director of MI Mykhaylenko V. and his first deputy Lisniak A. (https://bit.ly/3blz718) and CQAHE SSU (67 representatives of administration of SSU AS), applicants (in particular, student deans of faculties and student directors, etc.)) (https://bit.ly/3b6JMQJ). After consideration of the EPP by the Academic Council and when making a decision on its approval, the EPP is approved by the Rector's Order.

All stakeholders: AS, students, graduates, employers (HCI managers), including as members of WPG and ECE, are involved in the development and updating of the EPP. Based on the results of proposals and comments received during the public discussion, an analysis of the state of the health care sector, regional peculiarities, international practice is conducted, and the EPP is revised. The concept of development of educational activities for EPP "Medicine" takes into account the regional levels of morbidity in the region and the problem of staffing of medical positions (https://bit.ly/3ErpEVR).

The new Educational Program Components as MC "English language", MC "Integrated course "Fundamentals of academic writing", MC "Integrated course "Democracy: values, principles, mechanisms" were introduced in 2019. In 2020, the EPP was revised, but no changes were made. In 2021, MC "Medical Informatics" was introduced to the EPP.

- **2.6.3** The availability of clinical bases and their diversity provides an opportunity to acquire skills in specialized departments at the patient's bedside, in operating rooms, maternity wards, outpatient clinics, clinical and pathological conferences. Multidisciplinarity approach to clinical bases allows to acquire and improve the necessary practical skills for the future specialty, ensures the implementation of the individual educational trajectory of the applicant. To achieve a high level of training there is the possibility of academic mobility within the country and abroad (https://bit.ly/3bJjoN5, https://bit.ly/3mwPstB, https://bit.ly/3CE1lUk).
- **2.6.4** Classes on EC are conducted in classrooms with multimedia software, computer classrooms equipped with licensed software. Information resources for EPP are formed in accordance with its profile and current trends in research, include scientific, educational and methodological literature, subscribed periodicals (https://bit.ly/3C9YZLQ), Scopus and WoS databases, thematic databases (https://bit.ly/3c2mtrI). Educational and methodical support gives the chance to reach the purposes and PLO EPP thanks to its semantic saturation and constant updating. The site of the department, Google software products, e-learning tools (OCW, LecturED

https://elearning.sumdu.edu.ua/) are used for remote access to them. To conduct research, seekers can use the research base of SSU University Clinic, center for collective use of scientific equipment of SSU, center of pathomorphological research, center of molecular genetic research, laboratory "Bionanocomposite", vivarium and center of morphological research, Ukrainian-Swedish center, regional center of electron microscopy and mass spectrometry and others.

Coordination of places of study is carried out on the basis of the University Clinic and 36 other clinical bases, taking into account the discipline and subject of the lesson. For example, the study of Internal Medicine is carried out not only on the basis of therapeutic departments, but also in specialized (gastro-, pulmo-, endo-, hemato-, cardio-, rheumatology), as well as in departments of chronic hemodialysis, functional diagnostics, endoscopic center, center of allergology and clinical immunology, laboratory, simulation center. The link provides information on quantitative and qualitative indicators of logistics of educational activities (https://bit.ly/3FSYPLU, Annex XXIII, XXIV, XXVI, XXVII).

2.6.5 Resources for planning and implementation of teaching methods are HCI (https://bit.ly/3DLEnuG), University Clinic, Simulation Center, laboratories, as well as access to elearning resources of SSU, electronic institutional repository of the university (https://bit.ly/306COsF) and other open educational resources.

To provide the research-based learning (RBL) teaching method, students have access to scientific equipment, where they can choose an individual learning trajectory (https://bit.ly/3n4wABj, https://bit.ly/3vu4cwf). To provide CBL and TBL teaching methods, the university provides practical work with access to micro-, macroslides, a simulation center, and work at the patient's bedside.

AS consultations are provided for the organization of SIW in the disciplines of EPP (https://bit.ly/3DkFq4L). Methodological support of disciplines, electronic catalog and library repository are used as resources for planning and implementation of teaching methods. Training courses for AS cover new teaching methods.

Taking into account the challenges caused by periodic quarantine restrictions, teaching methods are provided with SSU electronic resources, which contain teaching materials of disciplines, including institutional repository (https://bit.ly/306COsF), electronic library (https://bit.ly/3HbwVeG), OCW (https://bit.ly/3n2rkQ2) and MIX (https://bit.ly/3qtga96), etc., which provide students with access to the necessary information. Informing the students in time about the changes in conditions of the educational process takes place through Electronic Personal Accounts (https://bit.ly/3C5xrqQ).

2.6.6 The possibility of forming an assessment is provided by various assessment methods. For example, assessment of the solution of a clinical case, protection of medical history, compilation of complex modular control (practice-oriented differential tests and exams), assessment of practical

tasks is done by accessing patients and their medical histories at HCI (https://bit.ly/3DLEnuG), work in simulation classes.

Interviews, written and oral comments of the AS on the results of the answer of students in the conditions of mixed learning are carried out through the use of learning platforms: MIX (https://bit.ly/3qtga96); open online courses "Examinerium" (https://examenarium.sumdu.edu.ua); open electronic resource of structured collections of educational and methodical materials OCW SSU (https://bit.ly/3n2rkQ2).

Testing through access to platforms is used for formative assessment, where the students has the opportunity to immediately receive feedback in the form of a test score. Evaluation of presentations through the use of multimedia equipment. The defense of an individual research project (presentation at a conference, competition of students' scientific works) is assessed by holding scientific conferences and competitions of scientific works.

2.6.7 Implementation of innovative programs is given through the use of mobile applications, such as "Android application to determine liver fibrosis" (https://bit.ly/3wxBdsa), "Testmoz test generator" (https://bit.ly/3kmYkAy). Within the framework of scientific activity a unique medical device for histological and cytological examinations (https://bit.ly/3koa45M) has been developed, a 3D printer is used for modeling of educational and applied material.

SWOT analysis table

Strengths	Weaknesses
Applying educational methods suitable for theory and	-
practice.	
Applying educational methods, which stimulate, prepare and	
support students to take responsibility for their learning	
process.	
Teaching based on the principles of scientific methodology	
according to the level of postgraduate education that allows	
the student to achieve knowledge and understand the	
scientific base and methods of the chosen field of medicine.	
Students involvement in scientific work.	
Accordance between the EPP content and unstable	
conditions, needs of society and the Healthcare system.	
Resources necessary for the implementation of innovative	
learning methods, assessment of students are available.	
Opportunities	Threats
The experience of international universities with similar	Absence of professional standard.
programs has been considered while working out and revising	
the EPP.	
Students have access to clinical bases, University clinic, and	
simulation center.	

According to the standard "EDUCATIONAL PROGRAMME" 39 criteria are disclosed, of which 8 have a strong position, 31 - satisfactory and 0 - suggests improvement.

STANDART "ASSESSMENT OF STUDENTS"

3.1. Assessment methods

3.1.1. The assessment of students is focused on encouraging them to actively participate in study process arrangement and aims to: support students in ensuring the ability to achieve PLO through the availability of effective feedback; quantitative assessment of the level of achievement of LO; development of applicants' ability to self-assess to ensure their effective further education. For determining the level of learning material in syllabus of academic disciplines is used current (assessment of work in practical classes - written and oral comments and instructions of teachers, including working with the patients in clinics, performing individual research tasks (projects), testing, writing and defence of case history, presentations, training on simulators) and final (practice-oriented exams or modules, USQE) assessment, which determines the level of achievement of the expected LO.

There is no portfolio on a regular basis. In the case of the student's participation in competitions, grant projects, he/she creates a personal portfolio based on the provided templates from grantors. In 2021, the Deputy Director (R. Moskalenko) conducted practical seminars for students on the preparation of CV and motivation letters (https://bit.ly/3pU4ETh).

3.1.2. Principles and methods of students' knowledge assessment for examinations and credits are determined by some valid SSU regulations, which correspond to the Ukrainian Law on HE and other documents. Such regulations comprise: the Regulation on SSU Course Program Organizing, the Regulation on Assessing SSU MI Students of the Study Field "22 Health Care" (https://bit.ly/30Ob4t7). Student's acquisition of practical skills and abilities is assessed by the head of practice from the department (curation of hospitalized and daily care patients) in each module: therapy, pediatrics, surgery, obstetrics and gynecology. One of the activities of the student and his control by the head of practice is completing of Practice Diary (https://bit.ly/3DcjMj4), which is filled out by the student after each day of practice and signed by the head of the practice from clinics and from the university. After completing each content module, student fills the Final Report on the performed work. Signed Diaries and Final Reports are obligatory pre-conditions for final module control permissions. The final modular control involves the assessment of practical skills and abilities - individual control of practical actions according to the list.

Formative assessment gives applicants the opportunity to analyze their own activities - self-assessment, peer-assessment, written and oral comments of the teacher on interviews' results or after solved clinical cases, checking and assessment of the written assignments.

Summative assessment includes testing, interviews, defence of a patient's case history/presentations, end-of-module summative assessment (graded test, practically-oriented exam

with assessment of the solved clinical case, OSCE): evaluation of the practical and written tasks, defense of an individual research project (speech at a scientific paper contest/conference).

Measures of final control in academic disciplines are usually carried out in writing form. In exceptional cases, primarily for the assessment of language competences, practical skills, the final assessment activities are conducted orally.

3.1.3. Applicant assessment covers knowledge, skills and attitudes to learning through a comprehensive approach to the organization of control measures, which include summative and formative assessment, and measures of applicants certification. Formative assessment is carried out on the basis of a comprehensive assessment of knowledge, which includes control of initial level of knowledge, quality of practical work, level of theoretical training and results of final control of the level of knowledge. Summative assessment is carried out in order to assess LO at a certain educational level or at some of its completed stages on a national scale and ECTS scale and can be performed in the form of a final module control or exam, which is regulated by Regulation on Assessing SSU MI Students of the Study Field "22 Health Care" (https://bit.ly/30Ob4t7). Forms of control measures and assessment criteria for applicants within the educational components of the EPP are clear, understandable and provide an opportunity to establish the achievements of the LO due to the fact that at the stage of creating syllabuses control forms correspond to the results of disciplines correlated with PLO.

3.1.4. The basic principles of the organization of assessment of students' knowledge are defined by Regulations on the organization of educational process in SSU (bit.ly/3q4TSd9). Main assessment forms are the formative and summative ones. They include different assessment methods: evaluation of solved clinical cases, check of written tasks, oral tests, written and oral lecturer's comments, defence of case history/presentation, testing, assessment of making manipulations on simulators and patients. Extra points are given to students for performing individual research projects (conference reports, competition of the students' scientific work).

The final semester evaluation (exam, differentiated test) in academic disciplines is usually conducted in writing, including with the use of test technologies. Materials for the final evaluation, as a rule, are developed by lecturers on the basis of the work program of the discipline. The number of test tasks is determined from the conditions of ensuring sufficient completeness of testing a person's knowledge of a particular discipline and minimizing the time for the assessment event. The structure of all variants of examination tasks by the number of questions and variants of answers is unified.

Final control includes: differential modules, exams and OSCE, which is regulated by the Regulation of the CMU on the SSQT for Master's Degree in the Study Field "22 Health Care" (https://bit.ly/3b8tbM8) and consists of such components as the integrated test exam "KROK", OSCE and ELPT.

The main test assessment of applicants is conducted within the licensing exams KROK 1 and KROK 2. Questions for these exams are tested for validity at the HCM. Requirements for the procedure, the number of test tasks and their design are determined by the Order of the MHU № 419, dated 02/19/2019 (https://bit.ly/3F2JGWF). The ELPT takes place at the same time as the KROK exam. Students' preparation for the OSCE is supported by the Center of Preparation for the OSCE and Other License Integrated Exams. It is based on the respective SSU regulation (https://bit.ly/3B9cs6f).

OSCE allows to determine graduates' readiness to perform professional activities in accordance with the requirements of the standard of HE, during which clinical skills and competence are assessed by demonstrating practical (clinical) knowledge and skills on a real object (person) or model (phantoms, simulators etc). The list of practical skills for OSCE and algorithms for their implementation are performed by departments on the basis of current standards of training and standards of medical care, then approved at the meeting of the graduating department. Assessment of a student at the OSCE station is carried out according to the checklist, which is based on the assessment of the completeness of the task by the graduate. The OSCE order is regulated by the OSCE Arrangement in the SSU MI (https://bit.ly/2Zk59vq).

Problematic issues related to the use of student assessment methods are discussed with AS, students and employers. Reliability of assessment results is reviewed during department meetings.

3.1.5. According to the Regulation on Assessing SSU MI Students of the Study Field "22 Health Care" (https://bit.ly/30Ob4t7) and Regulation about the organization of the EP at SSU (bit.ly/3q4TSd9), final module controls or examinations are possible only for those students who have completed all course assignments and have got a minimal current grade (over 72 points, which is equal to national grade 3). In case of under 72 points, students may raise their current grade until the exam starts. The raising mechanism is determined by the Department Methodology Council whose members inform students at the academic year beginning.

The final module control is performed in any form, which is chosen by the methodical meeting of the department (written work, testing, etc.) after the completion of the study of all topics of the module at the last control lesson.

The grade for the discipline is defined as the sum of points for the current educational activity and the final module control, in case the applicant received an unsatisfactory grade from the final module control, it must be retaken two times during an additional week. Extra points are added to the grade for the discipline: 9-12 points for a prize place in the 2nd tour of the student's Olympiad or a prize place in the international scientific conference for student research work; 6-8 points for participation in students' scientific conference in oral report form; 4 points - in poster form; 3 points

- in the case of participation in intra-university competitions in scientific conferences for abstract publication.

- **3.1.6.** Lecturer's feedback to students is traced within assessment as: topical grades, MIX testing results, advice for performing practical and case tasks, check of written assignments, oral tests and comments on their outcomes, group consultations. Current students' progress in theoretical and practical preparation is assessed as well. Thanks to the Personal SSU Account and electronic grade report sheets, students can get information about their final grades.
- **3.1.7.** The KROK 1 and KROK 2 tests are valid and reliable assessment methods of students' knowledge, which is checked on the state level. On the EPP level approved by the SSU Academic Council, matrixes of correspondence between course competences and MC and matrixes of LO support with respective course elements are arranged. These matrixes are used for Supplements "Match between LO and Methods of Teaching, Studying and Assessing". Such Supplements are added to course syllabuses. They are verified and approved by the CHEQA of the MI and SSU.
- **3.1.8.** Annually, assessment methods are reviewed, refreshed and implemented by EPP revisions of focus groups. Courses are checked by the CHEQA of the MI and SSU. Subsequently, they are approved by the SSU Academic Council.
- **3.1.9., 3.1.11.** The Regulation on EP Arrangement defines students' appeals against their grades. Written appeals with acceptable reasons are submitted to the MI director. Within 3 days, the department head and examiner consider the appeal and inform the student orally on consideration results. In case of need, other course lecturers may consider such appeals.

During the summer session in 2020-2021 the 2nd year student Turchenko Y.S. (group MC.m 905) did not pass the exam in the discipline "Biological and Bioorganic Chemistry". He filed an appeal with the dean's office regarding his disagreement with the assessment grade. MI director established a commission and the student was given the opportunity to retake the exam in the presence of the commission. According to the recertification results, the assessment was changed to positive.

The Regulation on the OSCE Arrangement in the SSU MI (https://bit.ly/2Zk59vq) determines how OSCE grade appeals are made. Within 7 days since results of the taken exam, students may appeal against their OSCE grades. Within 15 days since the appeal receipt, applications are considered by exam committees.

3.1.10. In the Regulation on Establishment and Organization of SSU Selection Committees for Certification of Applicants for HE (https://bit.ly/3k8k5Eg), it is stated that committee members are appointed among professors, associate professors, experienced university lecturers with scientific degrees. Besides, at least two persons among the ECE and specialists of certain branches (V.I. Potseluiev, M.L. Kuziomenska) are appointed as well. Also, members of such committees can be involved from other universities (professors O.I. Potapov, M.A. Stanislavchuk, M.M. Peshyi).

Main students' testing is implemented within the KROK 1 and KROK 2 exams. The list of practical skills that are presented at OSCE and algorithms for their implementation are developed by the relevant departments on the basis of current standards of training and standards of medical care, and approved at the meeting of the graduating department.

3.1.12. To secure fair results of exams and modules, they are conducted by AS that were not involved in current course assessments. To organize SIW, there are consultations in all MI departments in accordance with the schedule, where students can improve their course knowledge.

3.2. Relationship between assessment and learning

- **3.2.1.** Final LO are achieved through the use of appropriate teaching methods. In order to ensure the conformity of assessment and teaching methods, the criteria established in the Syllabus are used: information mastering degree, practical knowledge training, material analysis skills, SIW quality and practical skill performance. Methods of assessing students' knowledge reflect the level of knowledge gained as a result of training, practical competencies and results in each discipline. Criteria for assessing students are announced in the first lesson of each discipline, as well as on the website of EPP (Annex XII).
- **3.2.2.** LO of the EPP "Medicine" fully correspond to TS of HE requirements. To match LO with EPP competences, matrixes of correspondence between LO / competences and EPP components are applied during course syllabus arrangements (sp. 4 https://bit.ly/3Ff4sD1). These papers are Syllabus supplements. LO are achieved via MC from EPP.

Match of studying methods, teaching and assessing methods guarantee that students will reach final LO as to MC, which is explained in Syllabuses. Syllabuses include agreement of LO with course competences, studying and teaching methods. Matrixes of correspondence between course LO and MC are discussed and defined by WPG meetings, which provides constructive coordination of all elements of EPP.

3.2.3. Assessment is aimed at checking knowledge and practical skills, which determines students' academic progress within the EPP. Based on the obtained results students can independently assess the dynamics of their studies and adjust the learning process in accordance with the requirements of the EPP. Systematic assessment requires the student to continuous training, discipline and responsibility, to eliminate identified gaps.

Students with a current grade under the acceptable limit are not allowed to take exams. However, they may repass failed assignments, which forces them to pay special attention to raising the level of knowledge.

Interaction between the participants of the EP is established on the basis of the implementation of the "Electronic Personal Account" system as a single window of access to information services, which allows applicants to choose OC and an individual trajectory for the next academic year,

evaluate the disciplines studied, receive information about LO in previous semesters, individual CR for the entire period learning. Based on the information provided, the applicant can monitor his educational achievements and, if necessary, make the necessary decisions to improve the quality of knowledge.

- **3.2.4.** Knowledge assessment is a part of collecting information to conclude about students' progress and to reach requirements for doctors' practice. When an academic semester is over, students' progress is analyzed within all courses. That is discussed at department meetings and published in reports of the MI director and his vice deans for education. Within total course points (100%), current assessment is 60%, final assessment is 40%.
- 3.2.5. In the development and revision of EPP, special attention is paid to the development of the EP for integrated learning, the purpose of which is to achieve the LO on the basis of simultaneous study of clinical and fundamental disciplines. Within integrated learning, specific theoretical and clinical courses are taught: Integrated Fundamental Course and Integrated Clinical Course. When the Single State Qualification Test occurs, the KROK integrated test and the OSCE exam are taken. KROK 1 checks students' fundamental knowledge. KROK 2 evaluates clinical experience, OSCE includes elements from many disciplines, which provides interdisciplinary integration. For example, in EPP "Medicine" the final exam contains theoretical and practical tasks in surgery, internal medicine, pediatrics, obstetrics and gynecology, infectious diseases etc.
- **3.2.6.** The SSU clinical departments are located on clinical bases. There, leading experts are involved into academic process as part-time employees and supervise students' medical practice (Annex XXV).
- **3.2.7** Feedback to students is kept thanks to learning platforms: LecturED (https://bit.ly/3DRhp5m), MIX, OCW, in which AS can communicate to academic groups and separate students, report on assessments, etc. When students complete MIX tests and individual assignments, they may find out grades and lecturer's comments.

A great attention is paid to the results of students' semester polls. They concern the quality of practical training and educational resources, different assessment types, exam correctness and fairness (https://bit.ly/3GeqZ45). Assessment outcomes are analyzed during focus group meetings and in annual MI director's reports. They are further considered by WPG as a way to improve the EPP itself.

Norms and rules of registration of examination materials for assessment are established by the methodical instruction "General requirements to registration of examination materials for control measures which are carried out on test technologies" and "Regulation on the organization of educational process" (https://bit.ly/3q4TSd9). The MiX-platform (https://mix.sumdu.edu.ua) or other tools of synchronous or asynchronous communication, in particular video conferencing systems are

used for assessment measures (exams, defense of case history/scientific projects, reports on the passage of practice) on remote technologies. During the semester assessment, the identification of the applicant and his/her observance of academic integrity must be ensured. Before the semester assessment (during the pre-examination consultation), a preliminary check of the technical parameters of the communication setup and elimination of the identified problems is carried out. In case of force majeure during the semester control, the applicant must immediately notify the examiner or other responsible person of these circumstances through a specified communication channel (telephone, messenger, etc.) with mandatory photo or video recording of the status of tasks and objective factors that prevent its completion. In these circumstances, the possibility and time of resemester control is determined by the examiner and the dean's office individually.

Deferred control of one or more educational components is carried out sometime after their study and is part of the internal quality assurance system of higher education. This type of control can be carried out at the initiative of the rector of the university, directors of institutes/deans of faculties) and heads of departments.

SWOT analysis table

Strengths	Weaknesses
It is determined and respectively approved the principles,	Possibilities of recalculation of
methods and practices used for the assessment of students,	learning outcomes obtained in non-
including the number of exams, compliance with the	formal education.
balance between written and oral exams, the applying of	
assessment methods based on criteria and considerations,	
and specific exams, the number of reworks.	
Availability of the appeal system for the results assessment.	
The principles of integrated learning are applied.	
The timely, specific feedback based on the results of the	
assessment (questionnaire), including the system of	
"Electronic personal account" is provided.	
Opportunities	Threats
Integration between theory and practical training, including	The presence of the "human factor"
clinical, and the involvement of practitioners in the	in the assessment of applicants.
assessment of results	

According to the standard "ASSESSMENT OF STUDENTS" 19 criteria are disclosed, of which 0 have a strong position, 19 - satisfactory and 0 - suggest improvement.

STANDARD "STUDENTS"

- **4.1** Admission requirements to EPP "Medicine" are accurate and understandable, do not contain discriminative statements, and are available at the official website of SSU (https://bit.ly/3Ec17Eu, https://bit.ly/3Hgb8CM).
- **4.1.1** Admission requirements to SSU meet the peculiarities of EPP. Requirements for knowledge level meet incoming competencies that are needed to start the program training.

Admission to EPP "Medicine" is based on complete secondary education (https://bit.ly/3Ggwbok) (CSE). Enrollment procedure based on CSE (the list of EIT, the method for calculating the maximum volumes of government orders and quotas, the scale, and process for determining the competitive score and its minimum values, etc.) is determined by "Admission conditions to HEIs of Ukraine" and "Admissions requirements to SSU" that were elaborated by Admissions Committee; every year these requirements undergo changing and the procedure of approval by Scientific Council (https://bit.ly/3Cijvuu). Admission requirements added to USEDE.

The Department of International Education manages the admission of foreigners to SSU. The admission requirements of foreigners, persons without citizenship, and foreign Ukrainians are regulated by article 7 "Admissions requirements to SSU" (https://bit.ly/3c7kLVT), according to which the above applicants can enter the master's program for the first year having CSE documents. To get a master's degree, foreigners enroll during the year due to nationally approved deadlines. In documents of CSE, foreigners should have satisfactory grades in principal subjects. When entering the first year, foreigners take entrance exams in the language of instruction (Ukrainian or English) and biology. Foreigners, who have a certificate of a course accomplishment at the Preparatory Department of SSU and the certification of the principal subject, are enrolled without entrance exams.

The Admissions Committee carries enrollment of entrants and acts according to "Regulations on Admissions Committee of SSU" (https://bit.ly/3b7Mdm1). The SSU Rector approves the Admissions Committee membership, and he is the head of this committee. SSU Rector ensures abidance of the legislation of Ukraine, including Conditions and Rules of admission, and also guarantees publicity and transparency of Admissions Committee activity. The decisions of the Admissions Committee are posted on the official website (http://vstup.sumdu.edu.ua) within the next day after the correspondent decision was made. There are no restrictions on the entry of applicants with health problems.

4.1.2 Admission is carried out within the limits of licensed volume for EPP "Medicine" that determines the maximum total number of applicants, who can enter the university, renew the studying or transfer from other HEIs for getting HE within this EPP during the one calendar year (from January 1 till December 31). The licensed volume is 600 people.

Admission to SSU for EPP "Medicine" is carried out on a competitive base regardless of funding source. Admission out of state budget recourses is carried out according to state order and enrollment based on competitive grade during the participation in unified competitive admissions for all state orders.

Prospective students who received good grades while passing EIT on correspondent subjects can participate in the competition. Suppose a person wants to participate in the competition on getting a master's degree in the specialty 222 "Medicine". In that case, it is necessary to get not less than 150

grades (out of 200 possible) for the second, the third competitive subject (except for entrants whose competitive grade is more than 175 grades) (Annex XIII).

The number of supplied applications and enrolled Ukrainian and international students to MI of SSU on specialty "Medicine" during the five years are presented in Annex XIV. As of November 2021, 1517 international students (640 women and 877 men) and 583 Ukrainian students (407 women and 176 men) are getting HE at MI of SSU.

The ratio of domestic/foreign students in recent years has changed in favor of foreign students with a significant predominance of the latter. The preconditions for this were three groups of reasons:

- 1) Changes in national legislation concerning admission and the rules of learning in specialties 22 "Healthcare" (Medicine, Dentistry, Pediatrics) were aimed at increasing government requirements for applicants of regulated professions and led to a decrease in the number of entrants to these specialties.
- 2) Changes in the legislation on the organization and work of doctors in health care institutions have also led to a decrease in the popularity of the medical profession among Ukrainian entrants and reduce the number of those wishing to obtain this profession.
- 3) On the other hand, the growing popularity of SSU among international applicants has led to an increase in their number.

Teaching for international students is provided in Ukrainian and English. There are 1446 students from 40 countries of Africa, Europe, North America, Asia (Angola, Afghanistan, Bangladesh, Benin, Burundi, United Kingdom, Ghana, Democratic Republic of the Congo, Egypt, Yemen, Zambia, Zimbabwe, India, Iraq, Ireland, Jordan, Cameroon, Kenya, Lebanon, Libya, Morocco, Niger, Namibia, Germany, Pakistan, Palestine, South Africa, Rwanda, Saudi Arabia, Syria, USA, Tanzania, Tunisia, Turkey, Uganda, Finland, France, Sweden). Teaching for 77 students from 11 countries (Democratic Republic of Congo, Ecuador, Jordan, Lebanon, Morocco, Pakistan, Palestine, Syria, Tunisia, Turkey, Turkmenistan) is provided in Ukrainian.

4.1.3 Entrants based on CSE for getting an education on EPP "Medicine" apply: only in an online form. It is managed by the Admissions Committee depending on the order determined by the legislation, except for special occasions (article 2.3 https://bit.ly/3Ggwbok). Entrants can submit up to five applications on state budget and regional orders, and up to thirty applications on non-budget competitive proposals.

After documents inspection, the Admissions Committee decides on admission to the competitive selection within three working days from the registration date of the application in USEDE, but not later than the next day after the end of the document's acceptance. The competitive selection is based on the grade that is calculated according to Admissions Requirements (https://bit.ly/3Ggwbok). Conclusively, the competitive grade is multiplied by the regional (RC) and

rural (RC) coefficients by multiplying it by their product, and: RC is equal to 1,04 for the competitive proposals of SSU; RC is equal to 1.02 for persons registered in villages and who have obtained CSE in educational institutions located in the villages in the year of entry.

Ranking lists of entrants and recommendations for enrollment (article 2.6 https://bit.ly/3Ggwbok) is formed by categories in the following sequence: entrants who have the right to enroll based on the results of the interview; entrants who have the right to enroll under quotas; entrants who have the right to enroll on general conditions.

The ranking lists of entrants and recommendations for enrollment are posted at the official website of SSU (https://bit.ly/31Wf9fu) based on data, added into USEDE. If the applicant did not pass the unified state examination he/she can't be admitted to the SSU MI.

4.1.4 Special conditions for participation in the competitive selection for getting HE are presented in article 2.5 (https://bit.ly/3HQpiKh). Article 2.5.15 lists the groups of applicants who can be transferred to vacant positions of state or regional order (https://bit.ly/3HQpiKh).

The condition of enrollment of the applicant for parallel training in another specialty is the implementation of requirements similar to the requirements for entrants to the relevant EPP (article 2.1 https://bit.ly/3Ggwbok). These requirements can be fulfilled during the first year of study. The condition for enrollment of the applicant for parallel training in another specialty at SSU is an extract from the student's study card and the presence of EIT certificates in competitive subjects.

Applicants based on CSE in the medical direction who were expelled or interrupted their studies due to gap year have the right to be renewed to continue their training for a master's degree in the same or related within the branch-learning specialty at SSU or other HEIs.

4.1.5 The recognition of LO obtained in other HEIs, in particular during academic mobility, are regulated by "Regulations on Academic Mobility of Applicants" (https://bit.ly/3bJjoN5) and "Regulations on the educational process at SSU" (https://bit.ly/3niRwow). The recognition of LO obtained in other HEIs is realized through transparent mechanisms of transfer of EC.

According to the indicated regulatory framework of SSU, recognition of results of studying and transfer of MC is carried out based on the concluded agreement on training (internship) under the program of academic mobility, approved in established order in compliance with provided academic certificate or similar document received by the applicant in another educational institution.

Transfer, renewal of applicants from other HEIs (internal transfer between programs, specialties, faculties), and recognition of LO are regulated by the "Regulations on transfer, expel and renewal of applicants at SSU" (https://bit.ly/3G3bfk5). During 2017-2021, 4 persons were transferred (1 - in 2019 and 3 - in 2020), 330 readmissions were conducted, including 15 from other HEIs (Annex XV). Aor example, Students Vorotintseva A.Yu. and Silantieva A.H. were transferred from the

National University of Pharmacy (2020) in accordance with the Law on Education and the Regulations on transfer, expulsion and reinstatement of aplicants in SSU (https://bit.ly/3G3bfk5).

- **4.1.6** The state rules of admission are posted on the website of the MES of Ukraine (https://bit.ly/3nyyZV2) and are subject to public discussion.
- **4.1.7** The head of the Admissions Committee ensures compliance of Ukrainian legislation, the Terms and these Rules of Admission, and the openness and transparency of the Admissions Committee. The publication of the decision on announcement boards of the Admissions Committee, on the official website of SSU (https://bit.ly/3m5Zq4Y), in USEDE as well as in the personal online service of the entrant is the official statement for enrollment. Registered entrants may receive electronic emails and mobile messaging according to the AR.
- **4.1.8** In 2021, there was no admission of medical college graduates to EPP "Medicine" based on a Junior Bachelor degree, but it is planned for the 2022 academic year.
- **4.1.9** The ARs provide the possibility of submitting the 3rd certificate at option "Biology", "Chemistry" or "Physics" and "Mathematics" as the 2rd subject (but, as well as Ukrainian language, compulsory for all) to improve the LO. A coefficient 0.4 was selected (https://bit.ly/3GwYvmo).
- **4.1.10** The Appeal Commission of SSU was founded to protect the rights of entrants, to consider their appeals against the results of entrance exams. Regulations on the SSU Appeal Commission (https://bit.ly/3nlLy67) determine the organization, activities, and primary functions of the Appeal Commission. They are guided by the current legislation of Ukraine, orders of the MES, SSU Charter, and orders of the Rector of the University. There were no appeals during the admission period.
- **4.1.11** The University, at regular intervals, reviews admission policy based on social and professional data to meet the needs in the sphere of health and society as a whole. Restructuring of health care provokes the need to train fundamentally new competitive professionals with formed competencies considering current trends, international standards of professional activity of doctors. Reconsideration of admission policy includes the selection of coefficients for competitive subjects, determination of the list of subjects as the 3rd competitive subject. It is possible to consider the issues of priority admission, defined by the Resolution of the Cabinet of Ministers of Ukraine (CMU) "Some issues of persons right to primary enrollment in institutions of higher (professional higher) medical, artistic and pedagogical education by state (regional) order" (https://bit.ly/3GB0rds). However, in 2019-2021 there were no such entrants.

4.2 The number of applicants

4.2.1 SSU determines the number of applicants in compliance with the material and technical resources, educational and pedagogical staff, methodological and informational support of all stages of training. Admission is carried out within the licensed volume for EPP "Medicine", which is 600

people. The distribution of Ukrainian students depends on the source of funding presented in the Annex XIV.

The capacity of the academic group is not regulated by regulations. At SSU, the number of students in the academic group for the specialty "Medicine" is determined at the rate of 10 to 15 students to study medical and biological disciplines, depending on the course. In senior courses (year 4-6) the number of students in the group is 10-12. This approach is due to the large number of practice-oriented classes in clinics, which requires fewer applicants in each group.

4.2.2 The University annually verifies the number and contingent of accepted applicants during meetings with stakeholders. Periodic assessment of the number of students and quotas for enrollment provided for admission is carried out jointly with the MES and the MHU, Sumy Regional State Administration. At meetings, they analyze all reports on student enrollment, taking into account the region's needs and country in general. The MES of Ukraine is the main customer for training in the relevant specialty. The ministry, as mentioned earlier, finances the places of state order during the entire period of study that the university received in a wide competition.

4.3 Consultations and support for students

4.3.1 SSU has a developed academic advising system of students where great attention is paid to students' social, professional, and financial support. To support and advise applicants, promote their integration into university, the following initiatives were introduced: tutor support for first-year students, student directorate (https://bit.ly/3pvZX2w), "Student Self-Government" (https://bit.ly/3CbV0iA), student trade union (https://bit.ly/3vEIYMn), fellowships of international students, etc. In case of a need, free support can be provided by a psychological service (https://bit.ly/3nkrLnC, https://bit.ly/3jttt59).

The main instrument for ensuring mental health is to create an appropriate atmosphere in the university, which is defined by the "Code of Corporate Culture" (https://bit.ly/3bJjoN5). There is a support center for the family "Student Stork" (https://bit.ly/3pvcses/https://bit.ly/3BOMS6T), where students can leave their children while they are at SSU. Also, parents are provided with information, psychological, socio-pedagogical support. Applicants have the opportunities to get the necessary information conveniently – via the websites of SSU (https://bit.ly/2Zf1jmU), personal online service, social networks, etc. The University is actively working on the employment of students and graduates both at the university level (there is a department of practice and integration relations with customers) and at the level of educational departments of SSU. There is a startup center of SSU (https://bit.ly/3jtrC0e), on the basis of which according to European programs training courses, business games, master classes, coach training, pitching of initiatives, crash tests of student projects, etc. are held. Students are provided with comprehensive support in the implementation of projects.

Applicants and employees of SSU have the opportunity to obtain for personal use licensed operating systems and application software packages within the programs of preferential academic licensing.

Regulation on the procedure of academic differences eliminating in case of missed classes by MI students (https://bit.ly/3t57tmG). The cost of the service depends on the number of missed hours, the number of students in the group, academic title and position of teacher, and is calculated according to provision of services approved by the order of the SSU rector. Payment for this service is made by the student individually. In the case of group work, the amount of payment is calculated based on the actual number of missed hours and applies to a group of students, followed by an even distribution of value between them. In the case of individual practice, the calculation of the cost is carried out at the rate of 0.5 hours for one missed 2-hour lesson.

4.3.2 The existing academic advisement allows conduct consultation of students, monitoring each student's success and socialization as a person, and identifying and solving his educational and social problems. Social support of applicants, mainly students of privileged categories, is carried out in the established order (students receive social scholarships). The University meets obligations as to supporting orphan students. Explanations are given to students who live in dormitories on the possibility of receiving subsidies. The following centers are open for students: The University Clinic (https://bit.ly/3jtt9Dt), Sports and Health Center "Univer" ("University") (https://bit.ly/3jqt2bt), student club sports line (https://bit.ly/2Zdomif), Cultural and Art Center (https://bit.ly/3np2E2Y), International Cultural Center (https://bit.ly/3EeDew1), Discussion Club "Dumka" ("Idea"), Club of fans of theatrical art and classical music, poetry club "Waves of the word", club of good movies, intellectual club "What? Where? When?" (https://bit.ly/3nj15nj). A mobile application "Guide of international student of SSU" was created, the association of fellow-countrymen was created (https://bit.ly/3jttdDd) to facilitate the adaptation of international students. Student self-government bodies and trade unions support applicants. There are meetings of Ukrainian and international students with the SSU Rector and the Director of MI in "Face to Face" format. Students can express their views, which allows identifying shortcomings and wishes about the quality of the educational process dealing with financing, social, and household problems.

SSU creates an inclusive educational environment (https://bit.ly/311oD8O) to combine students' education, upbringing, and development, taking into account their needs and capabilities. Inclusive education of applicants with special educational needs involves individual training in the form of a particular schedule in general groups ("Regulations on the procedure for training applicants on a particular schedule at SSU" https://bit.ly/3wjVS2B) or training in inclusive groups ("Regulations on the organization of inclusive training of applicants for SSU" https://bit.ly/3bPqaAJ). All academic buildings and dormitories are equipped with ramps; lifting platforms for people with special needs are in the process of setting up. The psychological center and the coordination center for humanitarian

policy are available for students. SSU implements the project "Family-Friendly University" (https://bit.ly/3BOMS6T) to promote gender equality, create equal opportunities for mothers-applicants, mainly by providing the opportunity for children to be under professional supervision while parents at the university. This day applicants with special educational needs do not study at EPP "Medicine", but the provided information indicates the creation of sufficient opportunities to realize this right.

4.3.3 Conflict resolution and consultations of applicants are carried out by Order "Establishment of the University Commission on Ethics and Conflict Management" (https://bit.ly/3GMMVUt). This Order ensures that all information provided by applicants is confidential and not subject to publicity, except in cases where such information may violate the rights and/or freedoms of other participants of the educational process.

The University guarantees and ensures the confidentiality of consultation and support of applicants. All representatives of the AS, employees of all structural divisions of the University within their professional activities adhere to complete confidentiality as to the information provided by students and ensure the protection of personal data following the current legislation of Ukraine.

4.3.4 Appointment and payment of scholarships to applicants of HE is carried out by the "Procedure for appointment and payment of scholarships", "Some issues of scholarships", the Law of Ukraine "On Higher Education", "Regulations on scholarships for students, resident doctors, postgraduate students, doctoral candidates of SSU" (https://bit.ly/3nf6yLS). The rating according to which students are awarded and paid academic scholarships is formed on the results of the last semester of each course based on success in each discipline, taking into account participation in scientific, scientific and technical activities, creative activity, social life and sports. Students receive scholarships ranging from 40 to 45% of the real contingent - 1300 UAH. Students with excellent academic results and active participation in the public life of the university receive an increased scholarship - 1892 UAH. Scholarship ratings for students (https://bit.ly/2ZdfqcG).

Individual scholarships of the President of Ukraine (https://bit.ly/2Zo8av2), regional councils, scholarships of the "Zavtra UA" ("Tomorrow UA") program are awarded for notable achievements in education and scientific research. Applicants receive social scholarships by the Resolution of the CMU (https://bit.ly/3bEZ7YN) for 1180-3592,5 UAH. From 01.09.2021, 228 people studying at EPP receive an academic scholarship and 20 people - a social scholarship. As of 2021, 11 students work at the University (2 students work at the departments and 9 at the SRU).

Accommodation in dormitories is carried out under the "Regulations on student dormitories" (https://bit.ly/3neOjpG), "Regulations on the rating of accommodation in student dormitories" (https://bit.ly/3m2jVQ5).

The information as to places for living is constantly updated on the campus website (https://bit.ly/3ptQpF3). Room assignment takes place annually from 25 to 30 August. The decision on distributing the places for persons enrolled in the first year of study is made from the moment of application submission. Students who receive social assistance are provided with dormitories free of charge for the entire period of study.

SSU has developed sports-health and medical facilities, which provide social, health, and medical services. Graduate students are active members in sports sections that help to keep healthy. In extracurricular activities, students attend 88 sports sections out of 40 kinds of sport. SSU athletes include almost 250 foreign citizens that contribute to their socialization at the university. University students are participants, winners and prize-winners of the Olympic, Paralympic, Deaflympics, Youth Games, Championships, World and European Cups, competitions in professional sports leagues of Ukrainian championships, and all-Ukrainian and international student sports games and World Universiade. Every year the university is a winner of the Sumy Regional Universiade and the City Spartakiad. The university has won a victory in team rating in the All-Ukrainian Universiades, a champion among HEIs that do not specialize in physical culture and sports.

4.3.5 In case of professional crisis or other problematic situations that require psychological, social, financial and academic support, applicants may receive support from the tutors, teachers, director and his deputies for educational and extracurricular activities, deputies for work in dormitories, student government (student university administration, administration of the institute), the primary trade union organization of students, councils of fellow students of international students, etc. In case of non-attendance of classes due to illness or family situation, the student can provide a health certificate or write a statement about family circumstances to the dean's office. In this situation, students get permission to work missed classes free of charge. In emergencies, students may receive psychological service consultations (https://bit.ly/3nkrLnC) and psychological assistance (https://bit.ly/3jttt59).

4.4 Representative body of applicants

4.4.1 SSU ensures applicants' right to academic freedom, involves them in all decisions, and ensures their representation in the "Staff Conference" by Art. 39 of the Law of Ukraine "Higher Education" - 15% are representatives of students who are elected by direct ballot voting (https://bit.ly/3jwmcBz), 10% - in the Academic Council of MI and SSU (https://bit.ly/2ZdfoS6). Applicants are involved in the process of developing EPP as members of WPG.

Discussion of the project and approval of the EPP at the meeting of CQEHE of MI, CQEHE of the University, and its approval by the Academic Council takes place with the participation of students who are members of these councils. Students undergo surveys as to 1) the quality of educational programs; 2) the quality of the organization of educational activities while studying

academic disciplines; 3) thematic surveys on specific problematic issues in monitoring the quality of training. The results of the surveys are considered and discussed at the meetings of the Department of Internal Medicine with the Center for Respiratory Medicine, WPG, and EPP meetings.

- **4.4.2** Students are actively involved as full members of the academic community of CQEHE (https://bit.ly/3b6JMQJ, https://bit.ly/3F6nKdF) in the development, monitoring, and evaluation of EPP to maintain and continuously improve their quality. Students are active members of the Quality Council of MI and are responsible for the determination, implementation, and maintenance compliance of the monitoring and quality system with the established standards.
- **4.4.3** To evaluate the EPP within the implementation of the internal quality assurance system, the Center for Quality Assurance in HE initiated an annual student survey in 2020 (https://bit.ly/3B2W3zZ). Students questioning is automated and is carried out through the information service "Personal online service" for the usability and efficiency of data collection. Thanks to this service, it is possible to interview all students, electronic processing of results. Survey data are discussed at WPG meetings, the CQAHE of structural divisions, and the University (teachers and students). Survey data are used to improve the curriculum and educational program.
- 4.4.4 Within the realization of student-centered learning principles, "protection of basic students interests for honest quality education," applicants are involved in implementing internal quality assurance as critical stakeholders. This is realized through participation in quality councils and the Student Agency for Higher Education Quality Assurance as a structural component of CHEQA, participation in the conference "Educational process as viewed by students" and meetings with the SSU rector and the director of MI in "face-to-face" format. After that, the relevant orders are issued as to questions that students raised. The level of student's satisfaction with the learning process is identified through surveys, the results of which are the basis for further improvement. A mobile application under the principle of a chatbot, "electronic reception" (https://bit.ly/3vZLkFU) and "electronic dean's office" (https://bit.ly/3btjckJ) was introduced. It was designed to organize feedback student rector and student director to identify problematic issues and respond to comments and suggestions of students.
- **4.4.5** A system of stimulation and support for student initiatives has been created, the vast majority of which receive financial aid; more than 50 student projects are implemented annually. The following "student management programs" were initiated: senior student tutor of the first-year group; student deputy head of the dormitory; student educator of the group of children's health center; student mentor during the preparation of competitions for freshmen ("Golden Integral" and others), students leaders of clubs, etc. (for example, the applicant Redka O.V., MILm 706, is a specialist of the cultural and artistic center of SSU and the head of the vocal studio of MI). Almost 400 SSU students have paid jobs in various positions every year.

A system of monitoring and comparative assessment of individual activity of students through various forms of self-government, trade union and other public activities, participation in clubs, sections, club uniforms, etc. has been developed and implemented. Students can receive an additional 10% to their rating for the scholarship according to Regulation on scholarship for students, resident doctors, postgraduate students, doctoral candidates of SSU (https://bit.ly/3wMMJA0).

SWOT analysis table

Strengths	Weaknesses
Admission rules based on the mission of the EPP do not	-
contain discriminatory principles.	
The availability of policies/mechanisms of support of	
undergraduates focused on social, financial and personal	
needs, provision of appropriate resources for social and	
personal support ("Student' s Stork", student	
psychological support service, etc.).	
Undergraduate support is provided.	
A clear policy of involving students in the procedures of	
initiating, reviewing and evaluating of the EPP.	
Opportunities	Threats
The increase of the number of students and expansion of	The devaluation of medical
their geography.	education.
The creating a positive image of the EPP outside the	The negative demographic situation
country.	in the country.
	COVID-19 pandemic and
	restriction of migration of
	international applicants.

According to the standard "STUDENTS" 23 criteria are disclosed, of which 3 have a strong position, 20 - satisfactory and 0 - suggests improvement.

STANDARD "ACADEMIC STAFF / TEACHERS"

5.1 Personnel selection policy

5.1.1 Quality management system of university activity defines strategy of AS development and its reserve formation. Besides, procedures and requirements for lecturers' competence are established. In case of current SSU academic vacancies, contest selection and further employment contracts are realized according to the Regulation on Contest Selection and Employment Contracts for SSU Academic Vacancies (https://bit.ly/2ZcePb0), Part 11 of Article 55 in the Ukrainian Law on Higher Education, the License Terms of Training and Education (https://bit.ly/3EkdgHg). Academic vacancies can be taken by persons with a scientific degree and / or academic rank as well as those with a Master's diploma. Applicants must have over 5 years of professional practice within a certain specialty (except for teaching, academic and research work). Trainee lecturers and other academic members with no provided legal norms are assigned non-competitively.

According to the Procedure of competitive selection when filling vacant positions of scientific-pedagogical and pedagogical employees of SSU and conclusion of employment contracts with them (https://bit.ly/3F9eyoD) replacement process for a position shall be announced not earlier than 3 months before the expiration of its validity with the person holding this position. Announcements about the competition, terms and conditions of its holding are published by the personnel department on the official website of the university (including, if necessary, in English).

5.1.2 Under the License Terms of Training and Education (https://bit.ly/3EkdgHg) and the Regulation on Contest Selection and Employment Contracts for SSU Academic Vacancies (https://bit.ly/2ZcePb0), applicants have to submit documents that match the Information Form conditions of his educational and professional qualification as well as research, teaching and clinic experience. The exact duration of employment contracts is established as to these achievements. The summary data on how AS match the qualification requirements and EPP is given in the table (https://bit.ly/3EbVaag). According to it, 73.6% of medical lecturers and 100% of AS work full time, part-time physicians employed in hospitals are represented in Annex XXV.

High competence of the AS is confirmed by foreign advanced training (https://bit.ly/3CE1IUk), many publications (https://bit.ly/3C9bzvD; https://bit.ly/3poxmMo) and their acknowledgement on local and state levels (https://bit.ly/3nwWJZE). Over the past 5 years, MI employees have published 69 training manuals, 83 methodological instructions, 5 textbooks, 11 monographs, 116 electronic editions and created 6 open online courses, 849 scientific publications were published in SSU publishing house, 2100 in edition outside SSU (including foreign edition) https://bit.ly/3lRlT5U).

- **5.1.3** Administration and management duties as to AS categories are stated in Typical Job Instructions of Register Clauses 1 and 2 (https://bit.ly/3b0eRoW).
- **5.1.4** Working hours, balance of teaching, methodological, research, organizing and other practices as well as maximal academic load are regulated by the valid Law on Ukrainian Higher Education (https://bit.ly/3Gavm0e). Academic load is corrected according to the Order on Norms of Academic Load Decrease (https://bit.ly/3B6qlSL), the Regulation on Standardizing Department Limits of Academic Load Including Efficiency of AS Training (https://bit.ly/3bh6cip), the Regulation on Work Planning and Recoding for SSU AS (https://bit.ly/3Ea4sUv).

AS is arranged as to the SSU Academic Board Resolution on Principles of Forming the SSU AST. Information about vacancy contests, their duration and conditions are published by the SSU Staff Department on the university official site (English messages can also be made). If department heads are selected, such messages are printed in mass media too. Institute director's contests are reported on the university and institute sites and brought via Personal SSU Accounts. Applicants can either read all regulations and instructions on the university site or make these requests in the SSU

Staff Department. Within the contest duration (at least 1 month), applicants' documents are submitted to the Staff Department according to the Regulation on Contest Selection and Employment Contracts for SSU Academic Vacancies (https://bit.ly/2ZcePb0).

For 2021, in the MI there are 80.8% of AS with scientific degrees and / or academic ranks, among the AS of the support group of the EPP, the number of Doctors of Science is 42.1%, The number of teachers with a certificate in language training is almost 60% of the total number of AS, and in the EPP providing group - 69 teachers of 95 (72%) (https://bit.ly/3EbVaag). Teaching process is also implemented by health care specialists (Annex XXV).

In SSU, AS constitute 35%, administrative and economic - 31%, administrative management - 20%, research staff - 5%, support staff - 9% (https://bit.ly/3q8BAI1). Ratio is 1:3.

5.1.5 The conditions of AS selection correlate with main mission of EPP wich provides students access to qualitative education, modern knowledge in the field of evidence-based clinical medicine by performing subclauses 2.1, 2.19, 2.20, 3.5 from the Information Form on compliance with the educational component of the educational and professional qualifications of the applicant for a position (signing a contract for a new term) of the AS and his achievements; modern teaching technologies, including virtual and augmented reality and the use of innovative practice-oriented educational technologies (subclauses 3.1); experience in advanced research (subclauses 2.8, 2.10); internationalization of the perception of the best world practices in the field of medicine (subclauses 2.8, 3.8); the principle of lifelong learning for the needs of a rapidly changing world is carried out by attracting the active participation of teachers in conducting thematic improvement courses and internships for doctors (https://bit.ly/3C7Xmiv), as well as postgraduate education (https://bit.ly/3GfHrkW).

Inclusive education and no discrimination are kept through the Code of Corporate Conduct. One of the leading SSU development priorities is a constant increase of academic and administrative staff competence. Academic members participate actively in international, all-Ukrainian and local congresses, conferences for a better access to evidence based medicine. Moreover, such events are organized by the SSU MI as well.

The advanced training cumulative system is a system that promotes professional AS development via his new or currently upgraded competences. It is done via learning, training and other types of informal education or self-study, professional practice (https://bit.ly/3BhngPT).

5.1.6 AS duties in EPP implementation are regulated by Typical Job Instructions of Register Clauses 1 and 2 (https://bit.ly/3b0eRoW). All academic members must every 5 years complete an advanced training program or confirm their competence through cumulative system points (https://bit.ly/3BhngPT, https://bit.ly/3zDtaLE) according to certain check values (https://bit.ly/3r2UDTp).On the basis of bilateral agreements between SSU and other HEIs, teachers

are given the opportunity for academic mobility, exchange of teaching experience at various events. AS also participate in international academic mobility (https://bit.ly/3CE1lUk), including for training purposes. Dynamics is represented in the link https://bit.ly/3q8BAII.

Teachers of clinical departments improve their skills in accordance with the Procedure for doctors attestation, according to the MHU Order "Some issues of continuous professional development of doctors" № 446, 22.02.2019 and amended by the MHU Order № 1753, 18.08.2021. It is obligatory to gain 50 points annually in conferences, thematic certificate-level courses, academic fellowships, etc.

- **5.1.7** Reward for postgraduate education is defined by the Regulation on Bonus Pay for SSU Doctorate Employees (https://bit.ly/3pJyn1V) and the Regulation on Extra Pay for Peculiar Research Achievements and AS Training (https://bit.ly/3E9m036). Meanwhile, rewards are given for inventions (https://bit.ly/3nioLZ3), prepared projects of state scientific grants (https://bit.ly/2Zm4f1E), high research publication levels (https://bit.ly/3nD6k1t), personal contributions to foreign activity rise (https://bit.ly/3GdUu6f), active participation in grant applications (https://bit.ly/3jO6nq7), SSU cost optimization in access to information resources and databases (https://bit.ly/3C9BDXE). Additionally, rewards are also provided by the Regulation on Bonus Pay for Academic, Administrative, Support Educational, Service and Other Employees from the General and Special SSU Funds (https://bit.ly/3Cdf0l2).
- **5.1.8** Most clinical academic members (75.1%) work for over 5 years (https://bit.ly/3EbVaag).
- **5.1.9** All EPP educational components are provided by corresponding specialists (https://bit.ly/3EbVaag).

5.2 Employee commitment and development

5.2.1 The academic individual plan (https://bit.ly/3Ea4sUv) is filled in by an employee and approved by the department head while that of the latter is accepted by the institute director. If there is a conflict of interests between an academic worker and the department head or between the department head and the institute director, individual plans must be approved by a person with respective rights delegated by a special rector's order.

The EPP guarantor and WPG obtain full information about staff activities. Particularly, teaching and assessing methods in course syllabuses are reviewed and accepted by the guarantor. Further, they are published in the corresponding web catalog with hyperlinks on department sites. Applied teaching and assessing methods are checked via polls, department reports and semester analysis of students' qualitative progress.

Periodically, AS is estimated according to the Regulation on the Council for Quality Assurance in Higher Education of SSU Structural Units (https://bit.ly/3k8pHyj). Besides, other

estimation tools are used: the Best Lecturer Contest (https://bit.ly/3C6ml63), dean's office random checks – at least 1 practical training per week (those are arranged by university administration). Department control visits are made regularly; in case of need, lecturers are replaced. Randomly at least once a week, the SSU Study Organizing Unit controls practical trainings and the abovementioned visit schedules of faculties and departments.

Any check results of practical training quality are recorded as reviews in Department Registers of Practical Training Control and Registers of Mutual Practical Training Visits.

Additionally, AS work is estimated through students' polls according to the "Regulation on the organization of assessment of the quality of educational activities by applicants for higher education when studying the academic disciplines at SSU" (https://bit.ly/31sgt9z). Such voluntary online polls are usually conducted when the course has been already finished. Poll questions can be corrected in case of reasonable proposals. Poll requests as corresponding links are sent to students via Personal SSU Accounts. General assessment of AS work is classified as a respective grade: high, above average, average, under average, low, critical.

According to the Ukrainian Law on Higher Education (https://bit.ly/3Gavm0e), a lecturer's academic load is under 600 hours per year while that of students is under 60 credits. It guarantees enough time for self-development (particularly, to participate in professional congresses, seminars, meetings, etc.). Individual plans of AS (https://bit.ly/3Ea4sUv) are filled in by the employees, approved by the head of the department. Individual plans of heads of the departments are approved by the director of the MI. AS teaching workload is 36 hours a week in a full-time position. Amount of methodical, scientific and organizational work is not included in the teaching workload, these are separate types of work that are taken into account in the total working hours, and payment for which is made within the salary. Time norms for planning and accounting of methodical, scientific and organizational work for AS defined in paragraph 2.3-2.5 of Regulations (https://bit.ly/3K59UMa).

5.2.2 Relation "lecturer – student" is not regulated by the Ukrainian Law on Higher Education (https://zakon.rada.gov.ua/laws/show/1556-18#n504).

5.2.3 To involve AS into improvement of higher education quality, a range of contests is offered: the Contest of Pedagogical Innovations (https://bit.ly/3w1Oh8V), the Best Academic Members (https://bit.ly/3GDJb7y), the Best Lecturer from Students' Perspective, etc. Winners get financial rewards. Moreover, AS with the highest poll grades, which is foreseen in the "Regulation on the organization of assessment of the quality of educational activities by applicants for higher education when studying the academic disciplines at SSU" (https://bit.ly/31sgt9z), are rewarded as well. Some of these values with subsequent reward mechanisms are also included in ranks of SSU structural units (https://bit.ly/3vCXpjQ). On the bilateral treaty basis between SSU and other universities, academic mobility is possible. Thus, our academic members participated in academic

mobility programs (https://bit.ly/3CE1lUk) to upgrade their qualifications. Extra bonus pays are provided for foreign PhD student supervision, course teaching in English, publications, modern teaching technologies, etc. That raises SSU image and its success. The above-mentioned motivation tools are realized within the Regulation on AS Arrangement and Pay for Teaching Courses in English (https://bit.ly/3m31YAN), the Regulation on the Best Lecturer from Students' Perspective Contest (https://bit.ly/3C6ml63) and the Regulation on the SSU Publishing Policy (https://bit.ly/3nkDQJn).

One of factors to raise qualitative levels is advanced training organization as a process of constant professional development of SSU members: academic, administrative and support educational ones. Main types of SSU advanced training are license programs to increase skills of applying electronic tools and distance learning technologies. Besides, such programs can concern innovational pedagogical activities, long-term advanced trainings (e.g. "Two-Year Intensive English Language Course") and programs of active teaching methods, short-term advanced trainings, methodology and training workshops, round table conferences, etc. To acquire competences needed for modern specialists, the university has created the cumulative system of advanced training results. It provides personal values: how academic members participate in international trainings, formal certificate programs, workshops, etc. Career promotion is secured by the SSU Staff Development Center (https://bit.ly/2Zcmmao), the Regulation on Professor, Associate Professor and Senior Researcher Certification (https://bit.ly/3E97Q1B), the Regulation on PhD and DSc Certification (https://bit.ly/2Zb4rAu). The same is done via participation in webinars, workshops, contests, etc.

5.2.4 The university has a deep, multidirectional system of AS motivation via monthly rewards for qualitative work, completed assignments of certain difficulty, research achievements, preparation of postgraduates, etc. Moreover, bonuses are paid for annual work results, excellent task accomplishment as well as creative approaches to duties. Rewards are given for each Scopus and / or Web of Science publication. Besides, h-index increase, PhD dissertation defense (postgraduate and his supervisor), copyright and international grant applications are rewarded. Bonuses are paid for supervisors of students who won in All-Ukrainian competitions and contests of students' research. The above-mentioned bonus pay is arranged by the Regulation on Inventions (https://bit.ly/3nioLZ3), the Regulation on Active Participation in Preparing State Grant Projects (https://bit.ly/2Zm4f1E), the Regulation on the Best SSU Young Researcher Contest (https://bit.ly/3juhvbe), the Regulation on Extra Reward for Special Research Achievements and AS Preparation (https://bit.ly/3E9m036), the Regulation on Reached High Publishing Levels (https://bit.ly/3nD6k1t). Improvement and support of staff knowledge, qualifications and competences are realized thanks to the SSU Center for Staff Professional Development (https://bit.ly/3EKGr6D). It is based on university strategical purposes and forms academic advanced training plans. Results of anonymous students and academic members' polls define desirable direction of advanced training (https://bit.ly/3jYEKKM). Publications in

journals with an impact factor are paid for by grants, sub-accounts of departments and independently by the authors, with subsequent awarding bonuses according to the Regulations for achieving a high level of publication of research results (https://bit.ly/3nD6k1t).

SWOT analysis table

Strengths	Weaknesses
The quality policy of teachers selection and admission is	The insufficient percentage of
defined and implemented.	international academic staff
High level of motivation for academic staff by means of the	involved in the teaching according
system of perks and incentives.	to the EPP for at least 3 months.
Broad international contacts of academic staff who teach	
according to the developed EPP.	
Involvement of practicing physicians with experience in the	
field.	
Opportunities	Threats
University-supported professional development.	Staff crisis due to "overflow" of
Improvement of the level of foreign language proficiency.	teachers to practical medicine or
Academic mobility to partner universities.	leaving for work abroad.
	The reduction of the number of
	young teachers who want to be
	involved in research and teaching
	activities.

According to the standard "ACADEMIC STAFF/TEACHERS" 13 criteria are disclosed, of which 5 have a strong position, 8 - satisfactory and 0 - suggests improvement.

STANDARD "EDUCATIONAL ENVIRONMENT AND RESOURCES"

6.1. Material and technical base

6.1.1 In the course of educational activities, SSU provides applicants with sufficient logistics, which meets the licensing requirements, to ensure adequate implementation of the EPP, space and opportunities for the acquisition of theoretical knowledge and practical skills. The areas of SSU (https://bit.ly/3FSYPLU) involved in providing EPP during EP, including departments on clinical bases (according to the concluded agreements). Classes are held in 63 lecture halls (from 40 to 192 seats), 178 classrooms for group studying, 102 training laboratories, 78 computer classes (Annex XVII). EP is carried out directly in 47 classrooms and laboratories with multimedia equipment, as well as in the simulation center (Annex XVI). Computer classes are equipped with licensed operating systems from Microsoft and application software packages from Microsoft and others. Modern information and communication technologies of the library are used in the EP. To participate in research, applicants can use the research base of the university clinic, the center of collective use of scientific equipment of MI, the center of pathomorphological research, the center of molecular genetic research, laboratory "Bionanocomposite", vivarium and morphological research center, Ukrainian-Swedish research center, SSU Center for Collective Use of Equipment, Problem Laboratory, Center for Social and Humanitarian Aspects of Regional Research, Regional Center for

Electron Microscopy and Mass Spectrometry, Research and Training Center for Modeling in Complex Systems, Microsoft Imagine Academy Training Center, Problem Systems for Electronic Systems Research Laboratory and means of encoding information.

Educational buildings have all the necessary infrastructure to conduct classes and meet the social and household needs of applicants, meet the requirements of fire safety and sanitary and hygienic standards, as well as provided with a well-established system of law enforcement. Unique in the country Athletics arena and Beach Volleyball Center, sports and training halls, 2 swimming and rehabilitation pools, stadiums and sports grounds, water-rowing and ski bases (Annex XXII), sports and recreation camp "Universe" (https://bit.ly/3jBAZLI).

At the service of non-resident students - 15 dormitories with a total area of 52978.7 m² (https://bit.ly/3FSYPLU), as well as - dormitories of 6 institutions and organizations of the city, where students live under social partnership agreements. As a result, almost 100% of students are provided with dormitory places.

The link provides information on quantitative and qualitative indicators of logistics for educational activities (https://bit.ly/3pi5B8k).

6.1.2 The information component of the EP is provided by the library of SSU. The total area of the library is 3,415 m², of which the area of 1,506 m² is for customer service. The library is provided with information and technological resources, including automated book issuance and bar coding of the library fund. There is an "Electronic Catalog" in personal online service, which allows to download e-books, order and view literature. The library fund is renewed annually and amounts to 1.4 million printed. ex.; 1.5 million patents; 90 thousand names of e-documents. Over 5 years, books and magazines worth more than 1.5 million hryvnas were purchased, including 209 thousand of educational literature of Elsevier publishing house.

SSU library is a modern information system that unites more than 50 remote libraries into a single network and provides access to information resources of more than 60 thousand users. In accordance with the needs of today, the library is a leader in quality information resources and innovative services to support research and educational activities and provide space for continuing self-education. The local network of the library is represented by 150 PCs with Internet access, 100 of which are custom. Information resources of the SSU library on EP are formed in accordance with the subject area and current trends in research in this area. Applicants for HE for EPP have access to databases: Scopus, Web of Science, Springer Nature, USMLE-Rx, Wiley, APA's PsychoTherapy, Grammarly, Coursera For Campus, Access Medicine, Wolters Kluwer Health / Ovid, MedOne Plastic Surgery, Academic Search Ultimate (EBSCOhost), eSSUIR, E-catalog of SumDU Library, scientific periodicals of the National Library of Ukraine named after V.I. Vernadsky of the National Academy of Sciences of Ukraine, scientific electronic library of periodicals of the National Academy of

Sciences of Ukraine, WHO, BioMedCentral, British Medical Journal (The BMJ), Cochrane Library, eMPendium, FreeBooks4Doctors, Free Medical Journals, Wiley Open Access, PubMed Central, PloS, Bookshelf, Child Neurology Society, Hardin MD, Harvard University, MedBioWorld, MedBioWorld, MedBioWorld, MedRiow Publication, MedPix, Nature, National Cancer Institute, Pediatric Neurology Briefs, Practice Update, Royal Society of Chemistry, Academic Journals, Academic Journals Database (Switzerland), Directory of Open Access Books (DOAB), Directory of Open Access Journals (DOAJ), Elsevier, Hindawi Publishing Journals, HighWire Press, HINARI, Journals4Free, Open Academic Journals Index (OAJI), Oxford Journals, Google Scholar, Healthline, The Directory of Open Access Repositories (OpenDOAR), E-Books Directory, Europe PubMed Central, Crossref, PubMed, Taylor & amp; Francis. Students also use methodical material prepared by teachers, monographs, articles from periodicals, statistical databases. Methodical and scientific material can be provided both in printed and electronic form.

Reading rooms with open access to book collections are equipped with the necessary copying and duplicating equipment. All library locations have WiFi coverage. The library has 4 zones for individual online work of users, a modern open communication space "Univer City" in the format of coworking. The modern design of reading rooms and library subscriptions helps to create comfortable conditions for study, communication and recreation. Customer service is carried out using automated technologies ABIS "UFD/Library". Remote access to the e-library is implemented 24/7 from the site of the electronic catalog (https://bit.ly/2Zij4BY). Authorization in the e-catalog is possible from the personal online service of SSU, as well as by e-mail and mobile phone number. Users are identified using e-documents of users in the application "Diia" (e-student, passport, etc.).

Electronic archive (repository) of SSU (https://bit.ly/3lRIT5U) is a leader in terms of occupancy in Ukraine and is regularly updated by scientific publications of employees and students, educational and methodological developments that ensure the accumulation, systematization and electronic storage of intellectual achievements SSU community, providing open access to them by means of Internet technologies, dissemination of these materials among the world scientific and educational society. The functioning of the repository is regulated by the "Regulations on the Institutional Repository eSSUIR SSU" (https://bit.ly/3jhVjBg). The University has concluded agreements with Antiplagiat LLC and Plagiat.pl for the use of Unicheck and StrikePlagiarism systems.

6.1.3 Information resources for EPP are formed in accordance with its profile and modern world trends, include educational, teaching and scientific literature, subscribed periodicals http://surl.li/obws, Scopus and WoS databases, thematic databases (https://bit.ly/3nsXN0X). All MC are 100% equipped with new educational and scientific publications and there is an option to use "classic" publications. Applicants for EPP have access to databases (https://bit.ly/2Z26HcY) and

training and methodological support provided in OCW, LecturED (https://bit.ly/3DRhp5m). SSU uses modern licensed software products (https://bit.ly/3aXg3JH), as well as information resources on the use and access to software (https://bit.ly/3aXg3JH; https://bit.ly/3lQIpvE; https://bit.ly/2Z5OITm).

- **6.1.4** Applicants can use the research base with modern equipment of the university clinic (https://bit.ly/3jgSiAX), simulation center and research centers (https://bit.ly/2Z7J974, https://bit.ly/3n4wABj, https://bit.ly/3vu4cwf, https://bit.ly/3jeZttI, https://bit.ly/3lWUgbH).
- **6.1.5** In accordance with the strategic development plan of SSU for 2020 2026, the construction of the MI educational building has begun; creation of the Center for Innovative Medical technologies; a significant increase in the auditorium fund with creative space, training centers, premises of "free" stay; renovation of library reading rooms in order to spread modern technologies of information and library services and create a convenient creative space for users.

Achieving the goals of EPP is ensured by funds on the sub-account of MI departments, which are spent on the necessary expenses, material incentives, infrastructure development. Allocated funds for repair work and purchase of equipment are given in Annex XVIII.

The university provides safe working and learning conditions for all categories of employees, applicants, patients. All categories receive in a timely manner the necessary information about the means of protection, about the rules of observance of safety measures in all premises of the university, instruction on work with the equipment. A safe environment for studying at SSU is provided by the Department of Labor Protection and Fire Safety (https://bit.ly/3BX2B4E), created to comply with the Law of Ukraine "On Labor Protection", the Civil Protection Code of Ukraine. This department organizes training of employees on the rules of labor protection, necessary actions in case of emergencies, including fire protection measures. At each department there is a person responsible for instruction on labor protection, all teachers in the first lesson of the discipline acquaint masters with instructions on labor protection and fire safety during classes and extracurricular activities at the university and at clinical facilities. The results of briefings at all levels are recorded in logs and confirmed by the handwritten signatures of those who have been trained or instructed.

Regulations on the procedure for training and testing of knowledge on occupational safety, fire safety and life safety (https://bit.ly/3lU2zEX) is aimed at implementing a system of continuous training on occupational safety, fire safety and life safety of officials, employees and education seekers in order to ensure proper, safe and healthy conditions of study and work, prevention of accidents and occupational diseases.

The Regulations on the Department of Labor Protection and Fire Safety (https://bit.ly/3BX2B4E) are in force at the University; as well as Regulations about the labor protection management system (https://bit.ly/3vrRHBn); on quality assurance in the handling of

ionizing radiation sources (https://bit.ly/3CagPiR); Instructions in case of fire in the regime room and other emergencies (https://bit.ly/3FWNISp). To ensure an educational environment safe for life and health of applicants in the conditions of COVID-19 distribution, according to the rector's orders, a number of measures were taken to change the organization of the EP, control the admission of employees and applicants to the university (https://bit.ly/3pft4Xy).

The mechanisms that provide feedback from undergraduates and teachers regarding the needs for educational resources are interviews and meetings with the Rector/Director in "Face to Face" format.

6.2 Educational environment

- **6.2.1** SSU, thanks to many years of fruitful cooperation with institutions of practical health care (https://bit.ly/3DLEnuG), provides all the necessary categories of patients and their proper number for complete clinical training of applicants from all disciplines studied. Applicants have the opportunity to get acquainted with primary, secondary, tertiary care, hospitals are provided with a sufficient number of wards for patients, the necessary methods of laboratory and instrumental diagnosis. Information resources of the SSU library on EPP are formed in accordance with the subject area and current trends in research in this area. To participate in research, applicants can use the research base of SSU and partner universities, educational, research and training centers, as well as clinical and theoretical departments of MI, which allows to combine EP, research and practice in relevant fields effectively.
- **6.2.2** There is an available access to sufficient clinical / practical tools / bases for the learning process. Clinical and practical training of applicants is carried out by research and teaching staff at 37 bases of clinical medical institutions of health care, where AS conduct clinical work, of which 23 health care institutions of the city and region, 13 private medical institutions, University Clinic (Annex XXIII).
- **6.2.3** For practical training, undergraduates have access to a sufficient number of patients in different departments of multidisciplinary hospitals (Annex XXIV). Practical training provides the formation and improvement of practical skills and competencies related to medical professional activity. The EP is carried out in inpatient departments, directly at the patient's bedside, operating rooms, manipulation rooms, outpatient rooms, on ward-rounds of professors and associate professors at the departments, clinical and pathological conferences in hospitals.
- **6.2.4** Clinical bases with which contracts are concluded include medical organizations of the city and region, including specialized medical institutions (obstetrics and gynecology, oncology, psychiatric, tuberculosis), multidisciplinary hospitals, outpatient clinics (https://bit.ly/3DLEnuG).

Clinical facilities have modern logistics for training applicants to provide primary, specialized, palliative, as well as emergency care in accordance with current recommendations. The

educational process uses equipment and tools of clinical bases under the supervision of a teacher to master the skills of patient care, a nurse, an assistant doctor of an outpatient clinic and a hospital. Clinical bases of the departments hospitalize patients relevant for applicants within 15% of the total number of hospitalized for practical clinical training.

6.2.5 Practical classes are conducted under the guidance and supervision of teachers and practitioners (Annex XXV) and are evaluated in accordance with the Regulations on the evaluation of educational activities of students of MI of SSU in the field of knowledge 22 "Health Care". To achieve the goals and objectives of EPP, undergraduates participate in joint inspections, examinations and treatment of patients with comorbid pathology.

Industrial medical practice of students provides improvement of theoretical knowledge, develops the ability to apply them in practice, master the skills of medical documentation, rules of deontology and medical ethics, behavior in the workforce. Conditions of industrial practice are regulated by all-Ukrainian regulations (https://bit.ly/2Xrtv5J) and Regulations on industrial practice of specialty 222 Medicine (https://bit.ly/3D5wSPf). The internship is carried out on the clinical bases of the leading hospitals in Sumy, with which cooperation agreements have been concluded (https://bit.ly/3DLEnuG). At the request of the HCI from outside the city for the students` internship, it is necessary to coordinate the dean's office of MI to determine the compliance of this institution with the requirements of the internship.

Experienced teachers are involved in the management of the practice, who advise students on the use and preparation of the necessary documentation (work program, schedule, practice diary), explain the rules of labor protection, safety and sanitation, responsibility for the work performed. The direct management of the internship of students is entrusted to full-time qualified specialists from the HCIs, which is the basis of the internship. At the end of the internship, students submit a written report on the implementation of the internship program and make a final test.

The organization of the EP takes place in specialised departments in accordance with the subject of the discipline to ensure the acquisition of extensive experience in the chosen field of health care (Annex XXV). Patient safety mechanisms are implemented by following fire safety instructions, internal rules of procedure in HCI and compliance with anti-epidemic requirements (https://bit.ly/2Xr5WK9).

- **6.2.6** Guaranteeing the number of patients and the relevant different clinical cases is realized through training on clinical bases, which allows to gain clinical experience in all aspects of the chosen specialty, including training in the organization and management of health and disease prevention (Annex XXVII).
- **6.2.7** The clinical base for undergraduates is also the University Clinic an accredited outpatient HCI (https://bit.ly/3jtt9Dt, https://bit.ly/2Z0H10C). To carry out medical and scientific

activities in the clinic, the university allocates special premises in which the necessary medical and diagnostic equipment has been set and which meet the requirements of sanitary norms and rules, industry standard of occupational safety, etc.

Applicants can use the research base of SSU units to conduct research. The university conducts economic contract SRW and provides scientific and technical services by SRU of SSU (https://bit.ly/3lUZUuF) and performs SRW at the expense of SSU (https://bit.ly/3lVkGdL).

6.3 Information Technology

6.3.1 SSU actively implements information technologies in structural units and EP. The development of the information technology system is based on the state policy of informatization of education and health care, the Law of Ukraine on National Informatization (https://bit.ly/3mgJlJK, https://bit.ly/3b9roXt, https://bit.ly/3BgCRiy), Orders of the MES of Ukraine on the adoption of "Regulations on distance learning" (https://bit.ly/3Ec0b2y) and "Requirements for higher education institutions that provide distance learning services" (https://bit.ly/3bccNKQ), Regulations on the Council for Informatization of SSU (https://bit.ly/3CfxSjp) and the regulatory framework of the Center for Maintenance of Information Systems (https://bit.ly/3Bi1tr7). In accordance with the provisions of the policy of informatization of health care, science and education, the Automated Management System (AMS) has been introduced and is constantly updated, which provides computerization of administrative activities, as well as EP. Information support is implemented through an integrated environment: AMS "University", personal online services (cabinets) of teachers and applicants; e-learning systems OCW, LecturED, information library system; sites of institutes / faculties / departments; Google software products. The main informational support of applicants is provided by the website of SSU https://www.sumdu.edu.ua, MI https://med.sumdu.edu.ua, websites of departments, personal electronic cabinets https://bit.ly/3C5xrqQ and pages on social networks Facebook, Instagram, Telegram messengers, YouTube channel.

Methodical materials for applicants in free access are posted on the website of the graduating department, other units, where MC is taught, in addition, teachers provide the distribution of educational materials by electronic means. Applicants use the opportunities of individual and group, remote consultation with teachers according to schedules. Applicants are regularly informed about additional educational and extracurricular opportunities.

6.3.2 SSU has created a virtual educational environment (e-learning system) which is a set of integrated online learning platforms and resources that provide a single identification of subjects, all forms of interaction with the preservation of results, process management at the level of AS and the university, regular collection of actual parameters of all actions and processes. The virtual learning environment includes online resources: MIX blended learning platform (https://bit.ly/3qtga96); platform of open online courses "Examinarium" (https://examenarium.sumdu.edu.ua); and open

electronic resource of structured collections of educational and methodical materials OCW SSU (https://bit.ly/3n2rkQ2), sites of departments, electronic catalog of the library, repository. Mobile applications (https://bit.ly/3wxBdsa), (https://bit.ly/3kmYkAy), textbooks with elements of augmented reality are actively used. On the basis of MI there is a center of collective use of the scientific equipment of MI (https://bit.ly/2Z7J974), scientific laboratories (https://bit.ly/3n4wABj; https://bit.ly/3vu4cwf; https://bit.ly/3jeZttI), which will help expand the opportunities of applicants in the SIW.

SSU provides free access for applicants to electronic sources of information. To improve the quality of education, stationary and mobile multimedia equipment is used: interactive whiteboards and projectors. Free Wi-Fi is available in the university premises (academic buildings, dormitories, library, canteens, recreation areas) and clinical facilities. Conducting distance and independent learning is regulated by orders and regulations: MES of Ukraine "On distance learning" (https://bit.ly/3Ec0b2y); "On approval of the Requirements to higher education institutions and institutions of postgraduate education, scientific, educational and scientific institutions" (https://bit.ly/3bccNKQ); "On determining the types of work of teachers who provide the educational process for distance learning and the norms of their payment" (https://bit.ly/3BffO7I); "The concept of building a single educational environment for e-learning" (https://bit.ly/3Cb9BLj); "On the territorial center of remote communications" (https://bit.ly/3ntDuAl); "On the development and certification of distance learning courses" (https://bit.ly/2XQjgYU); "Requirements for teaching materials of distance learning and criteria for their evaluation" (https://bit.ly/3jAmAyI); "On the mechanism of calculating the material incentives for teachers to support distance learning courses" (https://bit.ly/3bgTtGX); "On the organization of distance learning" (https://bit.ly/3bcyCpYOs).

In the process of teaching "Medical Informatics" applicants gain the necessary knowledge and skills in the use of information and communication technologies for communications, the Internet, telemedicine, the International Classification of Diseases (ICD-11); processing of medical research data in MS Excel, creation and maintenance of medical documentation; visualization of medical and biological data; processing of two-dimensional and three-dimensional medical images; modeling of medical and biological processes; automated workplace electronic health care system; methods of biostatistics; medical information systems; general technological scheme of medical-diagnostic process; medical information systems and environments, etc.

6.3.3 Only interns and teachers have access to health care information resources and relevant patient data. Medical information systems and electronic health care system are studied by applicants in the discipline "Medical Informatics" and demonstrated in e-Health by full-time teachers of clinical departments, who are part-time in practical health care, and by part-time practitioners.

6.3.4, 6.3.5 Patients are managed by teachers in health care institutions with the consent of the director of the institution, which is based on part two of Article 33 of the Law of Ukraine "Fundamentals of the legislation of Ukraine on health care" (https://bit.ly/3jErtH7), n. 8 "Regulations on the organization of the educational process in health care institutions with the participation of AS of HEIs, which provide training to health care seekers in the field of health care" and the existing cooperation agreement between the medical institution and SSU, as well as part-time teacher as a doctor of a health care institution (Annex XXVIII).

At clinical departments, teachers conduct clinical examinations of patients according to the subject of classes, continuously undergo professional retraining, conduct medical work in accordance with their medical qualifications and level of training. Planned and emergency patients are available for clinical practice and practical skills for the EP in the main clinical areas: surgery and internal medicine with specialized departments, obstetrics and gynecology, resuscitation and intensive care, neurology, psychiatry, neurosurgery, general practice/family medicine, pediatrics, ophthalmology, phthisiology (Annex XXVII). The training of a qualified doctor is provided by a combination of practical training on clinical bases and in a simulation center.

6.4 Medical and scientific research

6.4.1 Target comprehensive program "Organization of scientific work of students in organic combination with the educational process" for 2019-2021 (https://bit.ly/3aRf6mw) aims to reduce the gap between the educational and scientific component, to form a scientific and educational environment in which the achievements of university scientists would significantly affect the content of the EP; research-type university models with organic unity of scientific and EP; development of EP on the basis of the European model of organic combination of educational and scientific activity on the principle of "doing research-teaching", covering as much as possible the contingent of applicants with forms of organization of EP with a scientific component. This program provides the formation of a "portrait" of a graduate of SSU, who is able to perceive and implement innovations, work in a multifunctional information technology environment. The program also promotes scientific activities, forms the worldview of the applicant for lifelong learning "Life-long learning"; attracts students to perform SRW with remuneration; training of the most capable students on an individual trajectory, with an in-depth scientific component; attracts students to international scientific cooperation through their participation in academic exchange programs, summer schools, internships in foreign free economic and scientific institutions and internships.

Training in EP involves the use of research methods (individual, group research, project work); introduction within the MC of new forms of organization of research activities aimed at the development of scientific and critical thinking; creation of scientific groups of applicants for preparation of joint scientific projects. Facilitating the exchange of information between young

scientists, graduate students and students is due to the active work of SSS of SSU and MI (https://bit.ly/3jwH2AD; https://bit.ly/3C7KCIP). The scientific work of applicants is actively supported and regulated by 6.4. Register of regulatory framework (https://bit.ly/3m8WDIc). The successful combination of training and research during the implementation of EPP is confirmed by the publication of results, security documents (patents) introduced in EP, participation of applicants in the All-Ukrainian competition of student works, All-Ukrainian and international conferences https://bit.ly/3B8Qxfs.

Scientific seminars (https://bit.ly/3jTJ5yS) for applicants, graduate students and teachers are held at the departments where applicants are trained, where the results of their own scientific achievements and information obtained during internships abroad and participation in international congresses (https://bit.ly/3mwPstB).

The disciplines are aimed at studying the methodology of scientific research in EP: "Fundamentals of scientific research in medicine", Integrated Course "Fundamentals of Academic Writing", which aims to master the key competencies of academic literacy to assess information resources, create your own intellectual product, as well as Medical "Medical Informatics" to provide biostatistical processing of material, study of the methodology of controlled clinical trials, the principles of EBM, as well as a systematic review of research results. RBL as a teaching method is used in a number of theoretical and clinical disciplines during classes.

Execution of master's qualification works is not included in the EPP. Topics of scientific research of applicants are determined individually for each applicant, taking into account his scientific interests and capabilities of departments, research centers. The results of scientific research of applicants are published on the website of the departments (https://bit.ly/3GfgKwv), in the repository and are included in the EP by the decision of the department.

6.4.2 Encouragement of applicants to participate in medical research to study the state and quality of public health and health care system is regulated by the "Regulations on incentives for students and their leaders for the results achieved in competitions of student research papers and subject competitions of all-Ukrainian and international levels" (https://bit.ly/3Ge3JTQ). Applicants can participate in International Grant Projects (https://bit.ly/3EobeWT); Scientific and technical developments and services (https://bit.ly/3m2gQiZ); Competitions for funding (https://bit.ly/3pvjgss); Start-up (https://bit.ly/3npkBP5) and 3D-innovative projects (https://bit.ly/3EbYvqa). In addition, applicants can implement their own scientific ideas and even be employed in the Center for Collective Use of Scientific Equipment MI (https://bit.ly/2Zq3TXH), as well as continue their education at the third educational and scientific level (https://bit.ly/2Zeq82q).

SSU has introduced grant support for the implementation of individual and collective projects to stimulate and support the research of students who are members of the SSS, according to

which funding is provided for the purchase of equipment, materials, software, etc. necessary to implement the SSS grant; acquisition of scientific literature or access to specialized databases; business trips and organizational fees for participation in international and national scientific conferences, competitions, symposia, and exhibitions, etc.; material incentive of grant project executors (https://bit.ly/3nnk2W0). At the initiative of SSS, MI annually holds the International Scientific Conference "BIOMEDICAL PERSPECTIVES", which presents the following areas: Basic Medical Science, Clinical Medicine, Biomaterials in Medicine, Public Health, Dentistry, Physical Rehabilitation and Sports Medicine. It should be noted that both domestic and international speakers from Sweden, Bulgaria, Poland, Italy, Lithuania, Latvia, Germany and others are invited to the conference. (https://bit.ly/3Bbuy7s). According to the existing Regulations on the evaluation of educational activities of HEIs of SSU from 20.11.2020 (https://bit.ly/3GeqZ45) to the summary assessment is added 5-12 numbers for research, presentation at a conference, competition of student research papers.

6.4.3 Applicants have access to scientific activities on the basis of the university clinic (https://bit.ly/3jgSiAX), centers for collective use of scientific equipment SSU (https://bit.ly/2Z7J974), pathomorphological research. molecular genetic research (https://bit.ly/3n4wABi), Bionanocomposite Laboratory (https://bit.ly/3vu4cwf), Vivarium and Morphological Research Center, Ukrainian-Swedish Research Center (https://bit.ly/3jeZttI), Center collective use of SSU equipment, problem laboratory "Center for Social and Humanitarian Aspects of Regional Studies" (https://bit.ly/3lWUgbH), regional center for electron microscopy and mass spectrometry, research and training center for modeling in complex systems, training center Microsoft Imagine Academy, a problem-based research laboratory for electronic systems and information coding tools.

6.5 Expertise in Education

6.5.1 The state policy on the use of expertise is regulated by the Regulations on Accreditation of Educational Programs for Training Applicants (Https://bit.ly/3b0YA3c), based on the Laws of Ukraine "On Education" (https://bit.ly/3vBK9w7) "On Higher Education" and (https://bit.ly/3Gdi4ju), the statute of the NAQA (Https://bit.ly/3E82Nyv). The policy and system of quality assurance of educational activities and HE of SSU (https://bit.ly/30VqAUb) form the regulatory framework for quality assurance procedures EP. Development, approval, monitoring, revision of EPP are regulated by the Regulations on educational programs (https://bit.ly/3nb4jcg), Methodical instruction "General requirements to the structure, content and design of educational programs" (https://bit.ly/3jr9R1o). In accordance with the normative base of SSU and the recommendations of the CQAHE, the EPP is reviewed and updated / modernized based on its results.

6.5.2 The examination of the EPP is carried out within the accreditation of the program and is carried out NAQA or with the involvement of international institutions. Accreditation is voluntary and is initiated by the Free Economic Zone. During accreditation, the quality of the educational program and educational activities of the HEI is evaluated for compliance with the HE standard, the ability to meet the requirements of the standard, as well as the achievement of LOs in accordance with the criteria for evaluating the quality of the educational program. An expert group for conducting the accreditation examination of the EPP is formed of a head and two experts, including one expert from among the applicants. Based on the submission of the employers' association or professional association, a representative of employers may be involved in the work of the expert group (by agreement). The expert group does not include experts who work (including part-time) or study in the relevant free economic zone, or in the presence of other circumstances that indicate a real or potential conflict of interest. This information is reflected in detail in the "Regulations on the accreditation of educational programs for the training of applicants for HE" (https://bit.ly/3b0YA3c).

The University promotes the participation of AS in the EPP in the competitive selection of NAQA experts (currently 5 persons of AS are in the register, 2 others - in the process of preparation), organizes its own training courses to develop the potential of expert activities (program profile - https://bit.ly/3mvwPGr) and announcement for holding (https://bit.ly/3GEj3t8).

6.5.3 Research in medical education is carried out to determine the quality of educational activities, its shortcomings that may affect the quality of EP and their elimination, which is implemented through regular surveys of applicants, teachers and stakeholders with their further discussion at the department, institute and university.

6.6 Exchange in education

- **6.6.1** According to the "Regulations on the procedure for training applicants for HE according to an individual schedule" (https://bit.ly/3E5Xhwv/https://bit.ly/3wjVS2B), an applicant, who has no academic debt, is entitled to study according to an individual schedule in case of: he/she is engaged in research, if the nature of this activity coincides with the schedule, and only in those disciplines that correspond to the direction of his/her research (transfer to an individual schedule is based on the submission of the head of the department where the work is performed); participates in academic mobility programs and internships, the schedules of which coincide with the schedule of the EP (transfer to an individual schedule is carried out with the consent of the director in the relevant field); etc. In 2019, a 4th year student Kolgonuz A.V. (LS-601) was transferred to an individual schedule for the period from 27.11 to 02.12 in connection with participation in the academic mobility program on the basis of an individual invitation from the Medical University of Lublin.
- **6.6.2** Transfer and offsetting of educational credits is regulated by the "Regulations on reenrollment of learning outcomes of SSU applicants received in non-formal education"

(https://bit.ly/3m5gfwY/https://bit.ly/3wgiZeq), which does not contradict the Laws of Ukraine "On education", "On higher education". Validation in the system of formal education of knowledge, skills, competencies acquired in non-formal education is carried out in the presence of a document (certificate, diploma, etc.), educational declaration of the applicant by a certification commission of at least 3 members of the project team, including the guarantor EPP, created by the head of the support group. The Commission determines the amount of re-crediting in ECTS, the final assessment. The decision not to enroll or enroll is approved by the director of MI.

Thus, the re-enrollment of medical practice (internal medicine, surgery, pediatrics, gynecology) was carried out within the program of academic mobility between the SSU and the Medical University of Pleven (Bulgaria) 18.07.2016-12.08.2016 applicants: Babych I.M. (LS-105), Dedkova K.A. (LS-114), Sichnenko D.P. (LS-103), Karpenko B.M. (LS-101), Timonina K.V. (LS-117). In 2019, the 5th year student Bumeistver L.V. (LS-401) was re-enrolled in the disciplines: Internal Medicine and Occupational Diseases, as they were passed as part of the academic mobility program at the University of Foggia, Italy.

6.6.3 SSU creates favorable conditions for attracting applicants to academic mobility "Regulations on academic mobility of applicants" (https://bit.ly/3B5TjCc/https://bit.ly/3bJjoN5) and provides opportunities for the realization of applicants' right to international academic mobility (bilateral agreements with foreign free partners (https://bit.ly/3nfTJ3W), international grant projects (https://bit.ly/3m6JTBW)). Applicants have the opportunity to join the programs of international academic mobility, which are implemented at SSU (https://bit.ly/3mwPstB). During the period 2015-2020, MI employees took part in more than 300 international mobility events (https://bit.ly/3CE1lUk).

SSU holds periodic scientific conferences: "Biomedical perspectives" and "First step in science", seminars and summer schools for applicants. Within the framework of these conferences, applicants present the results of their research and publish their work in the conference proceedings. In particular, the 4th year student Tereshchenko I.I. (LS-302) in 2017 took part in the International Congress for Medical Students and Young Doctors in Iasi, Romania; Kozik S.V. (LS-209), Lyubchak I.V. (LS-401) and Dedkova K.A. (LS-104) took part in the 7th International Student Conference for Young Medical Researchers (Wroclaw, Poland, 2017), in 2018 Buzyna O.S. (LS-407) attended the UEG week conference in Vienna (Austria).

SSU provides for the possibility to send applicants on business trips, which are financed by:
1) sub-accounts of departments and institutes; 2) funds provided by the estimates of state budget research in the event that applicants and graduate students are executors of the relevant research with remuneration. In particular, applicants Drygval B.O. and Dedkova K.A. at the expense of the SRW took part in a scientific conference at ONMU (2019); Chumachenko J.D., Roshchupkin A.A.,

Kolgonuz A.V. performed research at the Institute of Physiology named after O.O. Bogomolets of the National Academy of Sciences of Ukraine in Kyiv (2018).

6.6.4 In 2016-2020, 11 state budget research (including 6 research projects of young scientists), more than 300 economic agreements, international research projects (https://bit.ly/3m9N8Zi), in particular, were performed at MI departments, namely, bilateral Ukrainian-Belarusian and Ukrainian-Moldovan, Horizon 2020 MSCA-RISE 777926 NanoSurf (https://bit.ly/30WaRUX). During 2016-2020, ERSAMUS KA1 projects were implemented with the University of Umeå (Sweden) and the Medical University of Pleven (Bulgaria), as well as Jean-Monet projects.

SWOT analysis table

Strengths	Weaknesses
Sufficient material and technical base for adequate	The necessity of increasing the
implementation of the EPP, places and opportunities for	percentage of applicants involved in
practical and theoretical research.	academic mobility programs during
Access to professional literature, information and	their studies.
communication technologies.	
The agreements with clinical bases for providing the	
accessibility of the educational process at the patient's	
bedside are approved and available.	
The involvement of applicants in scientific research, open	
access to scientific equipment in the Center of collective use	
of scientific equipment and laboratories.	
The clear credits transfer policy existence.	
Opportunities	Threats
Availability of individual learning opportunities in other	The amortization of equipment and
educational institutions of the appropriate level within or	phantoms and the necessity of
outside the country.	regular updates.
The establishment of the contacts with relevant national and	Limited opportunities for scientific
international organizations for providing exchanges,	and academic exchanges in a
common research and mutual recognition of learning	pandemic of COVID-19.
outcomes.	

According to the standard "EDUCATIONAL ENVIRONMENT AND RESOURCES" 27 criteria are disclosed, of which 11 have a strong position, 15 - satisfactory and 1 - suggests improvement.

STANDARD "ASSESSMENT OF THE EDUCATIONAL PROGRAMME"

7.1 Monitoring, control and evaluation mechanisms of the programme

7.1.1 According to the Law of Ukraine "On Higher Education", the system of HE quality assurance in Ukraine is comprised of: a system by which HEI ensure quality of education activity, and of delivered HE programmes (the institution's internal quality assurance system); a system of external quality assurance for HEI and higher education programmes; a system of HE programme

quality assurance verification by the NAQA and by independent quality assurance agencies empowered to assess and ensure quality of HE.

The current internal system for assessing the quality of education involves the revision, updating or modernization of EPP and CR based on feedback from all stakeholders and analysis of the quality of the learning outcomes of applicants, which is regulated by Regulations on the educational programs of SSU (https://bit.ly/3COY2K8), developed on the basis of the Law of Ukraine "On Higher Education" as well as "Policy on ensuring the quality of educational activities and the quality of higher education of SSU" (https://bit.ly/30VqAUb) in accordance with the standards and guidelines for quality assurance and standards in the European Higher Education Area (Standards And Guidelines For Quality Assurance In The European Higher Education Area (ESG), 2015)), Regulation on the CQAHE SSU (https://bit.ly/3DkWuYt), CQAHE of MI (https://bit.ly/30zJUX4), forming the normative basis for the quality assurance procedures of the EPP. In the process of developing and monitoring EPP, the General requirements for the structure, content and design of EPP (https://bit.ly/3COY2K8), recommendations of CQAHE SSU are taken into account. According to the regulatory framework, the EPP can be annually updated in terms of all components, except for the goal, GC and SC, PLO, provided for by the EPP standard.

Updating and modernizing the EPP, including its content, educational resources, work programs, educational components, etc. consider the proposals of stakeholders, including the results of their surveys; ECE conclusions; legislative and recommendatory documents of public administration bodies in the field of health care; participation of teachers in international and domestic scientific events, including internships and upgrading; participation of teachers in the implementation of SRW on the profile of the specialty, as well as changes in the resource conditions for the implementation of the EPP. The results of the update are reflected in the elements of the EPP (CR, work programs of disciplines, practice programs, etc.).

The involvement of applicants in the revision of the EPP is carried out directly during focus group meetings and surveys through representation in the relevant persons: CQAHE SSU and MI, WPG for the development and maintenance of EPP, Student education quality cooperation agencies. For example, during revising the EPP for applicants (2021 entry), the student Kust V.V. at the focus group meeting, made a proposal to enter information about the personal digital office in clause 1.8, sub-clause information and educational-methodical support. This proposal was taken into account, while the proposal of the applicant Varava Yu. concerning amendments to PLO 24 (do not specify the foreign language in which the applicant must communicate fluently) was not supported and taken into account. Significant changes to the content of the EPP were made in 2019, in particular, to achieve PLO the proposals of Professor Ataman A.V. on the introduction of a new MC "Democracy: values, principles, mechanisms" were considered, which will allow to train highly educated

intellectual specialists in the field of health care; Pogorelov M. V., who proposed to make MC "Fundamentals of Academic Writing" to improve the quality of training of applicants, as well as the director of MI Loboda A. M., who noted that in order to train specialists with knowledge of a foreign language, it is necessary to introduce a mandatory component "The English Language".

As part of the implementation of the internal quality assurance system and in order to determine the needs for changes in the content of CR and EPP an annual survey of students on the quality of EPP has been introduced in SSU since 2020 (https://bit.ly/3B2W3zZ), and since 2021 - a survey of employers (https://bit.ly/3GaAr8C) and graduates (https://bit.ly/3ngQBF0) regarding the satisfaction of stakeholders with the quality of training of future specialists, AS on the quality of the organization of the educational process and the created working conditions at SSU.

During the working visit on 31.07.2020, the cardiac surgeon, MD. Ph.D., Professor, Honored Doctor of Ukraine, Corresponding Member of the National Academy of Medical Sciences of Ukraine, Director of the Heart Institute of the MHU Todurov B. M. proposed to add a selective discipline "Invasive methods of diagnosis and treatment of cardiac pathology" for applicants of 2021 entry, and during the focus group meeting the director NCO "CCCH" SCC Dominas V. M. proposed to clarify the information in clause 1.8, in particular, to note the role of part-time doctors in ensuring the practical component of the pedagogical process. These proposals were subsequently supported at the meetings ECE, CQAME MI, SSU and SSU Academic Council.

According to the results of the evaluation of the quality of EPP in 2020, 84.6% of applicants for higher education EPP "Medicine" showed complete satisfaction with the forms and methods of teaching and learning, which contribute to the achievement of the stated learning outcomes according to this EPP. The dynamics of the level of students' general satisfaction of EPP for the period 2020-2021 demonstrates positive trends in terms of satisfaction of HE applicants (https://bit.ly/3B2W3zZ). At the same time, as a shortcoming, it was revealed that 76.2% of the respondents noted that they did not have enough time to complete the tasks of SIW. In order to clarify this question, a face-to-face meeting students - director was held. It was explained that the volume of students' independent work meets international requirements Standards And Guidelines For Quality Assurance In The European Higher Education Area (ESG), 2015 and the Regulations on educational programs of SSU (https://bit.ly/3COY2K8) – 50-70% of the total CR (actually 53.3%). To provide SIW a large number of self-training zones with free access to Wi-fi, co-working centers with access to modern databases have been created. In case of any questions during self-study, the applicant can seek advice from the AS at the department (https://bit.ly/3DkFq4L).

According to the survey CR, 85.3% of respondents noted the overall satisfaction with the content of the EPP. The results of the surveys are discussed at the meetings WPG, CQAHE MI and the university and are published on the MI website (https://bit.ly/3kFqjM1).

7.1.2. The policy of admitting applicants for training in the specialty "Medicine" is regulated by the order of the MES of Ukraine "On the approval of the Conditions for admission to study for obtaining HE in 2021" in accordance with Art. 13, 44 of the Law of Ukraine "On Higher Education", which approved the generalized conditions for admission to the EPP "Medicine" for all HEI of Ukraine, which limits the evaluation of the EPP in relation to the admission policy. However, ECE are involved in the formation of the content of the EPP and CR, who, assessing the labor market, make proposals for changes to the EPP, which allows to focus it on the formation of competencies relevant to the labor market.

The EPP is implemented by mastering the disciplines of general and professional training, with taking into account the dynamics of regional, national and international aspects of modern theoretical and clinical medicine. These challenges are fully relevant for the north-eastern region of our country, in particular, Sumy region. The analytical report of the labor market for 2020 was prepared and approved by the WPG.

An integrated complex model of development, approval, periodic review of the EPP and CR has been established, while the following has been implemented: the EPP is aimed at forming competencies relevant to the labor market by involving in the formation of the EPP content; individualization of education by adding to the CR a wide list of OCs of free choice in the amount of 25% of the total number of ECTS credits, as well as the inclusion in the CR OC of social and humanitarian orientation and disciplines of other specialties.

Taking into account the epidemiological situation, the OC "Current issues of COVID-19" was created and MC25 and MC 32, 34 were supplemented with questions on the peculiarities of the management of patients with internal organ pathology in epidemic conditions.

7.1.3 External evaluation of the EPP is carried out by reviewing the EPP, work programs of academic disciplines, practice programs by ukrainian and foreign leading specialists of other HEI, employers during the survey and EPP meetings.

In the course of regular meetings of the EPP, an expert assessment of the EPP takes place, incl. determination of SC and PLO and analysis of CR, their relevance to the requirements of the labor market, taking into account modern industry characteristics, employment opportunities, the availability of the necessary amount of practical training, etc. Employers, as members of examination commissions, participate in the evaluation of applicants during SSQT.

Analysis of employers' answers about the level of professional training of MI graduates indicates a high assessment of the professional skills of young specialists. Thus, 58.3% of respondents noted that they are completely satisfied with the level of professional training of MI graduates, 41.7% are partially satisfied. It is noteworthy that none of the employers who participated in the survey chose the answer "Dissatisfied" (https://bit.ly/3GaAr8C) (Annex XX). The results of the survey of graduates

in the specialty "General Medicine", the successor of which is the EPP "Medicine", indicate that the overwhelming majority of respondents (87.9%) are satisfied with the knowledge and skills acquired during training, believe that they are enough for successful professional activity and further career growth (Annex XXI).

At the same time, the interviewed employers and graduates noted the need to strengthen the practice-oriented training of future professionals. In order to improve the level of practical skills of students, the purchase of modern equipment was carried out to modernize the equipment of the simulation training center (in September 2021, interactive virtual anatomical simulators were purchased, in November - mannequins - simulators of an adult and a child for practicing the skills of providing extended emergency care).

Also, one of the types of external quality assurance of education is the assessment of knowledge of applicants EPP "Medicine" by "Center for testing the professional competence of specialists with HE in the areas of training" Medicine and Pharmacy under the MHU, which is conducted through SSQT, components of which are KROK 1, 2, ELPT and OSCE. 90% of Ukrainian students and 99.6% of English-speaking foreign students had positive results for passing KROK 1 in 2021, while the national rate was 80.9% and 89%. In 2021, 99.1% of Ukrainian students and 88% of Ukrainian-speaking foreign students passed the ELPT, with a national indicator of 90.2% and 76.9%. According to the results of KROK 2, 93.1% of Ukrainian and 97.1% of foreign English-speaking students successfully passed the exam, which made it possible to obtain the 3rd indicator in the country in this category of applicants (the national indicator was 96.2% and 88%). In 2021, all 294 students passed OSCE, among them 228 were Ukrainian, 66 were foreign (outcomes of OSCE was 100%). Among Ukrainian students, the highest outcomes were demonstrated in the discipline "Internal, Occupational and Infectious Diseases" - 78%, the lowest in the discipline "Obstetrics and Gynecology" - 46.9%. Among foreign English-speaking students, the highest results were in the discipline "Children's diseases with childhood infectious diseases" - academic performance of 71%, the lowest indicators of academic performance in the discipline "Surgery with pediatric surgery" -51.6% (https://bit.ly/3oudUMf).

7.1.4 In order to ensure the transparency of the educational activities of the university, to provide relevant information about the EPP to all interested parties (applicants, their parents, HE applicants, the academic community, labor market specialists, etc.), information on the EPP is made public on the university website.

Not later than a month before the approval of the EPP or changes to it on the official website of SSU in the catalog of educational programs (Section "Projects for Discussion") (https://bit.ly/3C0RqrD), the corresponding project is published in order to receive comments and

suggestions from all interested parties. The announcement of the focus group meetings, to which all interested persons are invited, is posted on the website of the major department before the meeting.

The channels for making comments and suggestions to the EPP are the page https://bit.ly/3jqFBDR, the mailbox info@job.SSU.edu.ua or the online form https://bit.ly/3jqFBDR, the mailbox info@job.SSU.edu.ua or the online form https://bit.ly/3jqFBDR, the mailbox info@job.SSU.edu.ua or the online form https://bit.ly/3jqFBDR, the mailbox info@job.SSU.edu.ua or the online form https://bit.ly/3jqFBDR, the mailbox info@job.SSU.edu.ua or the online form https://bit.ly/3H9u9GS.

The comments received from all stakeholders on the results of the discussion of the EPP and the response to them are summarized in accordance with the approved template and posted on the website of the major department (https://bit.ly/3kFqjM1).

SWOT analysis table

Strengths	Weaknesses
The availability of mechanisms of the EPP monitoring to	-
meet the needs of mission, the required learning outcomes,	
the content of the educational program, and the assessment	
of knowledge and skills.	
The involvement of employers, students, and graduates in	
the monitoring of the EPP.	
The systematic survey of main stakeholders about the	
quality of the educational process and study programme.	
Opportunities	Threats
The quality improvement of educational process according	The absence of mechanisms for
to the EPP in the dynamics.	making students interested in
Certification of quality system according to ISO.	undergoing surveys and
Rating of the educational process quality based on the	questionnaires.
results of external certification of applicants by the Testing	
Center at the Ministry of Health of Ukraine.	

According to the standard "ASSESSMENT OF THE EDUCATIONAL PROGRAMME" 4 criteria are disclosed, of which 0 have a strong position, 4 - satisfactory and 0 - suggests improvement.

STANDARD "MANAGEMENT AND ADMINISTRATION"

8.1. Management

- **8.1.1** SSU guarantees that the Educational Professional Programme (hereinafter EPP) complies with the University admission regulations, and its implementation follows this procedure: the Rector of SSU is appointed the Chairman of the Admissions Committee; "The Rules of Admission to SSU" based on "Terms of Admission to HEI of Ukraine" (https://bit.ly/3Cijvuu) are approved by the Academic Council.
- **8.1.2 8.1.5** SSU guarantees that the EPP complies with the recommendations specified in the "Regulations on educational programs of SSU", is drawn up with respect to the rules, methods and summative evaluation of final learning outcomes, and is reviewed and approved by the CQAHE and the Academic Council (https://bit.ly/3COY2K8).
- **8.1.6** The EPP's compliance with the requirements of postgraduate education is subject to constant monitoring. The EPP graduates can take an Internship course, which is regulated by the order

of the MHU (https://bit.ly/30juLJE), or take a Doctor of Philosophy study programme in accordance with Section 5 of "The Rules of Admission to SSU in 2021" (https://bit.ly/3DeTuNs). A set of professionally oriented MC 16, 23-34 and the ones aimed at practical training (MC 37-39) ensure implementation of the former trajectory. Such subjects as "Integrated course "Fundamentals of academic writing"", "Medical Informatics" and "Fundamentals of scientific research in medicine" create basis for further scientific activities and contribute to mastering the methodology of scientific activity, and acquiring skills needed to address research and innovation issues. In addition, the spiral construction of the EPP provides students with the model of continuing professional development, which they will further use to enhance their mastery at the postgraduate stage.

- **8.1.7** "Methodology for Determining the Rating of Structural Units" has been implemented at SSU (https://bit.ly/3wJZpr9), according to which 9 indicators are employed to set the ranking of the University departments, institutes/faculties. This evaluation technique assesses, among other aspects, study programs, the available contingent of students, and scientific and pedagogical potential. In the period from 2017 to 2020, MI was ranked as one of the three top position holders of the intra-university ranking. At the beginning of the academic year, the readiness of the departments for the new academic year is evaluated, the report on which is discussed at the Academic Council of MI (https://bit.ly/3BZXPTg).
- **8.1.8** The university has developed a clear multi-level framework of internal quality control of the HE (https://bit.ly/3C7RvcV). This framework as well as orders of SSU (https://bit.ly/3Ca4vhI) define teacher assessment procedures aimed at confirming their qualifications, professional and scientific level, mastery of modern teaching methods. The assessment performed by administrative staff focuses on scientific and methodological level of the teacher's instruction; the level of the AS ability to organize EP in the subject; students' academic record in studying the subject; the teacher's compliance with the qualification requirements and standards of scientific and professional activity. Based on the results of the above measurement, the University administration makes certain managerial decisions aimed at improving the quality of higher education.
- **8.1.9** SSU management is responsible for the development and quality control, which is prescribed by the "Regulations on Educational Programs of HE" (https://bit.ly/3COY2K8), CQAHE (https://bit.ly/3k8pHyj), SDC.
- **8.1.10** Strategic evaluation of the competitiveness of the university and its institutes, faculties, specialties by industry, which is focused on the end result and carried out by means of self-analysis, comparative analysis and benchmarking of leading universities in the global academic space, webmanagement, SWOT-analysis and process approach, will be significantly enhanced due to involving experts at the national and international levels (https://bit.ly/3vEtesw).

8.1.11 The University ensures transparency of the management system by informing all stakeholders of the provisions that define communication channels and functions of departments. The regulatory framework is publicly available (https://bit.ly/3m8WDIc). Updated regulations, decisions of the Academic Council of SSU, reports and other information materials are placed in open access on the SSU website, posted on employees' personal accounts, disseminated via corporate e-mails of departments' heads and teachers.

8.2. Academic leadership

8.2.1 Development, approval, implementation, revision, updating or modernization of the EPP is carried out in accordance with certain procedures of internal quality assurance of HE of the University, namely the Policy on Quality Assurance of HE at SSU based on standards and recommendations for quality assurance and standards in the European Higher Education Area (ESG, 2015), and Quality of HE, which form the regulatory framework for quality assurance procedures in EPP (https://bit.ly/3COY2K8).

The WPG of EPP is the organ which formed by order of the Rector of SSU to directly participate in all procedures related to the development, approval, monitoring and review of the program, in the procedures of external quality evaluation (licensing, accreditation, etc.) and self-assessment. The WPG includes teachers, students, employers in the home country and from abroad. It is chaired by the guarantor, under whose leadership the WPG develops the draft EPP (https://bit.ly/3vBQGa7) which is made public for a one-month discussion. After the discussion period expires, the WPG meeting discusses the submitted proposals and comments, and forms a draft to be discussed by CQAHE of MI and SSU with the subsequent consideration and approval by the Academic Council of SSU.

8.2.2 - 8.2.3 To ensure evaluation of the academic management regarding achievement of the mission, goals and PLO, the system of quality assurance of educational activities and quality assurance of HE has been developed, implemented and effectively put into operation at SSU (https://bit.ly/3k8pHyj). Distribution of responsibilities, functional roles, powers and rights between the participants of the internal quality assurance system of SSU in the context of the processes and procedures of internal quality assurance of EPP is determined by regulations in this area.

8.3 Funding and resource allocation

8.3.1 Responsibility and authority to manage the EPP budget

Funds for the activities of SSU, as well as EPP "Medicine" are raised through various sources such as: state budget; students' tuition fees; grant funds including Erasmus+, DAAD, British Council; implementation of research projects, including international ones funded by the European Commission. The total amount of funding for SSU is growing annually, and for the period from 2016 to 2020 it increased more than 1.8 times. The university demonstrated financial stability throughout

the period. Given the university is a leader among the HEI of Ukraine and is included in the world rankings, the amount of budget funding is growing, as the University has a reputation of a reliable partner. The structure of funding for the university activities demonstrates an increase in the share of funding from the budget (Annex XIX).

The yearly financial development plan of the university and the report on its financial status are discussed and approved by the Academic Council annually. Financial activities are transparent, the university website presents all reports on the funds income and expenditure (https://bit.ly/2ZWU9Et).

8.3.2 - 8.3.3 The main items of expenditures for financing MI activities are provided in Annex XVIII Labour cost constitute a significant part of the total costs. During the period from 2016 to 2020, they more than doubled. More than 15% of the salary fund are used to pay bonuses in accordance with the regulatory framework. It is worth noting that a significant part of the funding was carried out in 2015 after a new MI building (the one for providing dental services) was put into operation. Part of the area of this building is used for EPP "Medicine".

To stimulate AS initiative, an internal system of sub-accounts of institutes and faculties has been created, which strengthens their financial autonomy. MI at large as well as each department have their own sub-account. The available funds can be used to provide additional incentives to motivate academic staff and pay them bonuses, as well as to provide additional financing of physical infrastructure.

8.4 Administrative staff and management

8.4.1– 8.4.2 Management of activities and interaction of structural subdivisions of SSU is carried out in accordance with the "Statute of SSU" (https://bit.ly/3jwzIVH). The Rector oversees all the major aspects of the university management and administration. Directly under the rector there are vice-rectors who are in charge of the structural and collegial units in the areas of their responsibilities. The collegial governing body is the Academic Council which makes decisions on academic, methodological, scientific, educational and staff policies. The Academic Council is headed by the Chairman, who is elected by secret ballot from among its members. The Academic Council members appointed by their job positions are: the Rector; vice-rectors; heads of faculties, institutes, colleges; the Academic Secretary; the Director of the library; the Chief accountant; the rector's advisor; heads of self-government bodies and elected bodies of trade unions. The elected Academic Council members are representatives of academic and scientific staff who are elected in accordance with the defined quotas from among the heads of departments, professors, doctors of philosophy, doctors of sciences, elected representatives of employees, students (including graduate students, PhD and doctoral students), and trade unions. The Academic Council is legitimate within a period of up to 5 years, its quantitative and personal composition is approved by order of the Rector. Decisions of

the Academic Council are implemented by decisions of the Rector of the University (https://bit.ly/3GPbUGN).

The MI is managed by the Director, and the Deputy directors oversee the following areas of activities: academic, methodological, work with foreign students, international relations, vocational guidance, informatization and media technologies, extracurricular work, work in dormitories, physical education and sports. "Regulations on MI of SSU" regulates the structure of MI, its management system, the concept of educational activities and its implementation, the powers of the heads of the Institute and its departments (https://bit.ly/3CdspJS).

The Dean's office of MI is subordinated to the Director. The dean's office liaises with departments and students via the framework of working meetings, the Academic Council of MI, corporate e-mails and personal electronic accounts. The interaction of the Director, Dean's Office and Heads of Departments with the University management is determined by real needs, and is carried out through personal accounts, meetings with the relevant collegial structures, e-mails.

Functions and tasks of all divisions of SSU are defined by regulations on structural divisions. Tasks and functions of staff are defined by job descriptions (cl. 1, 2 https://bit.ly/3b0eRoW).

- **8.4.3 8.4.4** The university management model is built primarily on the principles of system-motivational management and has appropriate priority components. An extended regulatory framework of the university has been developed and implemented, which provides a wide range of development-driven management procedures. Regulatory documentation as well as the documents that define procedures and provide certain administrative and management services are posted on the university website in the public domain and systematized in the relevant registers, namely in:
- register of the main regulatory framework of the University quality management system, which contains systematized documents, a significant part of which include the motivational component;
 - register of documents on delegating part of the Rector's powers to other officials;
 - register of job descriptions;
- register of documents templates and register of document forms, the use of which simplifies the document flow and provides, in particular, its electronic form; regulates the level of decisionmaking competences as well as procedures and the order in which decisions are made and approved; ensures minimum signatures, etc.;
 - registers of other documents (permissions, cooperation with other organizations, etc.).

An appropriate level of transparency and democracy in management decisions is ensured; all regulatory documents are discussed by working and advisory bodies and the Academic Council. In general, the management system provides an appropriate balance between organized democracy in

building relationships at all levels of the university community, and purely administrative methods of management within the appropriateness of their application.

Trends in the world and national education and science are monitored systematically so that to respond in a timely manner to global challenges, changing conditions in the market of educational services, introduction of new scientific and educational technologies. Following the results of monitoring the regulatory documents of the national level and relevant international institutions, as well as the key indicators of the most authoritative international rankings, the list of the main indicators corresponding to the activities of world higher education institutions has been complied and is kept constantly updated. Analytical management is accompanied by the Center for Benchmarking and Web Management of the University with the use of SWOT-analysis tools and mechanisms for appropriate measurement and control.

In terms of ensuring the competitiveness of the university, the motivation for competitiveness has been significantly spread at the level of departments, faculties, and institutes management, which is achieved, in particular, through the rating system of institutes, faculties and departments of SSU. The rating methodology comprises a system of balanced factors, which are summarized by relevant indicators that determine the human potential and quality of training of scientific and pedagogical staff, indicators of formation of the contingent of students, quality of educational and scientific work with students, scientific, international and extracurricular activities, financial evaluation of innovative activities, the level of representation on the Internet and in the media. This system implies the use of various incentives to motivate most departments.

8.5 Requirements and provisions

8.5.1 According to the National Classification Framework of Ukraine (https://bit.ly/3GRTu88) graduates are apt to work in the DK 003–2010: Section Q. Health care and social assistance – Unit 86.1. Activities of medical institutions – Group 86.10 Activities of medical institutions – Class 86.21 General medical practice – Class 86.90 Other health care activities. After graduating from the educational program of the master's degree in "Medicine", the specialist is able to perform as: an intern doctor (KP code – 3229); a trainee doctor (KP code – 3221); resident doctor (KP code – XXX).

8.5.2 According to the regulatory document (https://bit.ly/3COY2K8), the information on the EPP is published on the university website to ensure transparency of the university educational activities and provide relevant information about the EPP to all stakeholders (applicants, their parents, students, academic community, labour market professionals, etc.). General organization of making the information on the SSU EPPs public and keeping it up-to-date is carried out by: Head of Licensing, Accreditation and Statistics Department (in charge of the catalogue of EPPs and information on compliance with licensing requirements with respect to material and technical support

of educational activities); Head of Methodological Department (in charge of EPs profiles and the list of their components); Head of Department for Academic Activities Organisation (in charge of information on compliance with licensing requirements with respect to academic staff issues). The Director of MI appoints those responsible for entering the comprehensive and verified information on the EPP into the information system, keeping the information up to date, verifying the information on the EPP before its publication on the website of SSU, and controlling the relevance of the published information.

SWOT analysis table

Strengths	Weaknesses
The application of procedures for verification of final	-
results and competencies of graduates to be used by both	
national and international institutions.	
The responsibilities and powers for budget managment of	
the EPP were determined.	
Regular management review and analysis for improving the	
quality.	
Opportunities	Threats
The acquisition of manager qualities by teaching staff in the	The bureaucratization of
case of involvement to the system of management and	management structures and their
administration.	decisions.
The planning of the purchase of equipment respectively to	The deficiency of funding as a result
the unstable necessities of the market and the dynamic of	of inflation, redistribution of funds,
the EPP development.	etc.

According to the standard "MANAGEMENT AND ADMINISTRATION" 23 criteria are disclosed, of which 0 have a strong position, 23 - satisfactory and 0 - suggests improvement.

STANDARD "CONSTANT UPDATE"

9.1 SSU plans and implements the processes of continuous monitoring, evaluation, analysis, and improvement of educational services, allowing for the national legislation objectives, stakeholders' requirements and expectations by contributing to the development of quality education based on competencies, and end-level LO. The desire to meet the stakeholders' expectations created the SSU CHEQA (https://bit.ly/3os8QI5). It guarantees the quality of processes and confidence in the university's ability to provide quality educational services; implementation and development of the Quality Management System, which enables improved EPP quality and the trust level to university's capabilities in providing educational services.

To ensure the quality of education, both at the institutional level and the MI level, heads of educational departments annually assess the planned activities and submit reports at the department meetings, MI and SSU CHEQA, MI (https://bit.ly/3BZXPTg) and SSU (https://bit.ly/3F1P3pG) Academic Councils. The Director of MI (https://bit.ly/3khqlcX) and the Rector of SSU (https://bit.ly/3bU8Fj5) annually present public reports that are heard at the "Conference of the Labor

Collective", covering all spheres and activities, including the implementation of strategic measures, areas of renewal, vision.

The basis for renovation and modernization of EPP and CR is the yearly revisions of their content. They must consider the "Concept for developing educational activities on EPP 222 Medicine" (https://bit.ly/3H7Fwir) and proposals formed during WPG meetings, focus groups, ECE. They consider the LO quality analysis occurring every semester in higher education applicants (https://bit.ly/3C7PH3X), a survey of students and teachers with further consideration and approval during the meetings of SSU and MI CHEQA, as well as SSU Academic Council.

During the focus group meeting (December 17, 2018), the guarantor of the EPP made a report on the initial analysis of the EP of the foreign partner universities: University of Umeå, Sweden; University of Latvia, Riga; University of Foggia, Italy; Medical University of Pleven, Bulgaria; University of Graz, Austria - as a result the need to formulate the EPP mission had been identified. On December 9, 2018, during the WPG meeting, the proposed EPP mission was considered and submitted to the ECE for further approval by the CHEQA MI and SSU. The review of the Mission was carried out during the meeting of the focus group (01.09.2020), the WPG meeting (08.09.2020) with the subsequent approval of the CHEQA MI and SSU. The analytical report was made and heard on November 9, 2021.

During the focus-group meeting (04.03.2021) L.N. Prystupa conducted an analysis of current trends in the development of medical education and the labor market of health workers with an emphasis on the development of information and analytical areas in medical education. Taking into account trends in the development of electronic health care system, employer S.P. Butenko proposed to transfer the discipline "Medical Informatics" from OC to MC which contributed to the formation of digital competencies in education. The proposal was supported at the WPG meeting on March 9, 2021.

At the meeting of the focus group on 19.10.21 the proposal of the applicant V. Mykhaylenko was taken into account and added to the list of the OC cycle of professional training "Nutrigenomics".

At the meeting of the ECE (26.10.2021) the issue of updating the catalog of OC of professional training for 2022-2023 academic year was considered. Potseluyev V. offered the applicants disciplines "Statistical analysis, statistics in medicine", "Information tools and systems in health care", "Achieving the promotion (promotion) of a healthy lifestyle" for the professional cycle of the EPP "Public Health" - (https://bit.ly/3qWqC7H).

9.2 Currently, the university is implementing a strategy under the Modernization Agenda, approved at the European level. It provides the implementation and improvement of institutional development and strategic management mechanisms, targeted and result-oriented funding, AS development, efficient management, and financial instruments to support excellence policy,

strengthening university autonomy in balance with responsibility and accountability, professionalization of management.

Regular improvement of human capacities finds its implementation through the "Perspective Work Plan for Staffing" (https://bit.ly/3mxJeKj) and other regulatory framework documents of the university quality management system, which determine the strategy for staffing, including the structure of financial and non-financial AS motivation.

A multi-vector system of employee incentives facilitates the growth of human capacities. It mainly occurs through monthly bonuses for quality performance of job duties, specific workstreams, and work related to increased complexity, for remarkable achievements in scientific work, AS training, etc. Monetary bonuses are given following the annual outcomes for exemplary fulfillment of planned, operational tasks, initiative, creative approach to work. There is a systematic award for publications in editions indexed by Scopus and/or Web of Science databases, for increased Hirsch index in these databases, for achieving five publications in editions indexed by these databases. Both supervisor and applicant get awards for the timely defense of a dissertation. Activities for protecting intellectual property rights and preparation for international grant inquiries are materially encouraged. Supervisors of students-winners of all-Ukrainian Olympiads, student research paper competitions are also awarded. There are additional financial incentives for guiding foreign graduate students, teaching in English, publishing textbooks, tutorials, and monographs, introducing modern technologies into the learning process. These measures stimulate the self-improvement of AS and shape the innovative face of the university, ensuring its academic performance.

The university exhibits a high level of information and innovation-technological activities. This fact is mainly confirmed by its positioning in the group of leaders of the Ukrainian HE according to international ratings of Webometrics Ranking of World Universities and uniRank University Ranking and acquiring the State Prize of Ukraine in the nomination "Higher education" in 2017 for success in solving scientific-theoretical, methodological, and technological aspects of comprehensive IT support for the activities of the innovative university. Unique equipment operates in the educational and scientific process, including computer and multispiral tomographic scanners, electron microscopes. An important task is the constant physical infrastructure (PI) updating to directly implement the educational strategy and research. When solving issues of creating an innovative infrastructure and improving technical support, the priority is to purchase equipment and facilities that will be used simultaneously in scientific research and the EP for developing modern information and telecommunications technologies (including online and other multimedia technologies). Next, to purchase equipment for the organization of self-accounting (combined with scientific, educational, or economic) activity under a tight payback period, that is, to create or increase production capacities. Thus, the Regional Research and Training Center for Endoscopic Methods of Diagnosis and

Minimally Invasive Surgery (https://bit.ly/3H7awiB), the Center for Collective Use of Scientific Equipment (https://rc.med.sumdu.edu.ua/), scientific laboratory for molecular genetic research came into operation.

Each structural MI subdivision yearly, by the end of October, submits proposals on forming a procurement plan for the next year, allowing for the requirements of the state regulator to ensure the learning process, the introduction of innovative technologies, costs for maintaining educational and research laboratories and more. When forming a procurement plan per year, the administration considers the results of the annual students' and teachers' survey on their satisfaction with the material and technical support (physical infrastructure).

To develop a contemporary research and technological infrastructure, optimize the use of high-value equipment, implement the principles of collective equipment employment, new centers of joint equipment employment will appear in the interests of both scientific and educational activities, particularly on an interdisciplinary basis. MI expects the creation of the Center for Innovative Medical Technologies.

9.3 Regular review and revision of the content, results, assessment of the learning environment, structure, and functions are documented and implemented when preparing the Concept of educational activities by EPP 222 Medicine, a field of knowledge 22 Health Care. It grounds on CMU Order №95-r dated February 27, 2019, "On approval of the Strategy for developing medical education in Ukraine," "Strategy for regional development of Sumy region for 2021-2027", approved by the decision of the regional council of the 8th convocation on 11.12.2020, "Strategic development plan of SSU for 2020 – 2026," supported by the Conference of the University staff (Minutes №7 of January 24, 2020).

Regular updating of the Concept of educational activity under EPP 222 Medicine grounds on applicants' comments and suggestions in the framework of the implementation of student-centered learning principles, "protection of basic interests of students for the honest acquisition of quality education." HE applicants as key stakeholders are involved in the implementation of the internal quality assurance system through participation in the work of quality councils and the student agency for cooperation in the quality of education; participation in the conference "EP through students' eyes" and meetings with the Rector in the "face-to-face" format, on the results of which appropriate decisions appear on the issues raised by students. The university surveys all full-time students on the quality of education in academic disciplines, which is performed every semester on the principles of providing information conditions for forming a holistic view of teaching and independent work quality. We have elaborated information support for survey analysis results and developed corresponding algorithms for administrative decisions.

A holistic, integrated model of EPP and CR development, approval, periodic revision has been formed, and procedures related to obtaining and analyzing information on EPP and CR concerning assessing the relevance of their content have been formalized. At the same time, we have implemented:

EPP course on forming competencies topical at the labor market by involving the ECE in the formation of the content of working programs and CR;

Modularization of EPP and CR that enabled to shape a basis for creating flexible mandatory components both in content and training;

Individualization of training by adding to the CR a comprehensive list of optional disciplines comprising 25% of the total number of ECTS credits, including those structured by blocks. That enables training according to profiling relevant to the labor market within the EPP by specialties and includes social humanities and disciplines of other specialties in the Optional Course.

The process of updating the spheres of activity grounds on the constant study of development trends and innovations in medical education, participation in international, including European congresses, academic mobility of students and AS (https://bit.ly/3mwPstB, https://bit.ly/3CE1lUk), participation in international scientific (https://bit.ly/2Zi5Hl2) and grant (https://bit.ly/2Zehfq9) projects. Constant renewal and improvement of all activities rest on analyzing development and innovations in medical education of undergraduate and postgraduate levels at national and European level, including conferences "Innovations in higher medical and pharmaceutical education of Ukraine" (Ternopil, 2019), An International Association for Medical Education "AMEE-2020", "AMEE-2021."

9.4 One of the most critical elements of SSU development is constant renewal, correction, and restructuring depending on external changes. The university development strategy further develops a quality system focusing on best practices, including foreign ones, promoted by the International Association for Medical Education. It ensures a competency-oriented EPP trend and allows for all stakeholders' needs, requirements, and expectations: students, graduate students, interns, trainees of supplementary educational services and advanced training, graduates, employers, AS, university partner organizations, and more. At the same time, as an essential tool for implementing feedback, sociological research methods for each of the above categories of stakeholders will be systematically applied, and appropriate recommendations and measures will be developed. Particular attention in the surveys will be given to quality issues related to the content and implementation of EPP and components.

Simultaneously, we will introduce the procedures helping to assess the participation of graduates and employers in the EPP development. The University stipulates the supplement and systematization of indicators for evaluating quality progress to ensure its evaluation by monitoring

such indicators as the dynamics of the degree of satisfaction of educational service consumers, graduates, and employers; employment indicators; students' achievements; accreditation indicators; expert assessments, etc. Diagnostic and other types of control will take place. A system for rating scientific and pedagogical workers according to relevant quality indicators will develop and implement. Technologies for systemic self-assessment and reporting with priorities of external assessment and educational service consumers' assessment will improve. The processes of EPP updating and restructuring over the last 6-7 years included: increased percentage of Optional Component, enhanced scientific component of the start-to-finish master's program by adding the Mandatory Component "Fundamentals of Research," topics related to COVID-19 attached to certain educational features.

9.5 The mission of EPP is to maximize the satisfaction of all the categories of stakeholders in their valuing expectations by providing high-quality services which possess an ultimate competitive advantage, adapting these services to the dynamic changes of today's world.

The dynamics of regional, state and international aspects of modern and clinical medicine are taken into account in the development of this mission and final LO. The EPP includes forming fundamental professional competencies of future specialists by combining theory and practice, taking into consideration the needs of the public health sector, modern trends of global development in terms of globalisation and unsolved epidemiological challenges. The regional aspect is conditioned by the low staffing level of medical job positions in the region (79.4%), the high incidence rate of respiratory tuberculosis and malignant neoplasms. At the state level, problems that demand the development of this educational vocational curriculum include significant extension of chronic diseases, socially dangerous diseases and short life expectancy, the system's low resistance to epidemic challenges, imperfect organization of the medical care system, lack of modern medical technologies in the sector, lack of specialists' training in using these technologies, etc. Problems faced at the international level include the high cost of medical education and the decrease in the number of those interested in its acquisition, reasons being the length of the EP, insufficient mastery of practical skills by applicants and professional burnout of employees.

The EPP is formed as the most appropriate combination of academic and practical professional demands. The EPP aims at forming applicants' competencies in the sphere of difficult specific problems in the public health sector which involves obtaining, profound improvement and generalization of knowledge and skills, forming new competencies in the professional activity. Unlike the other EPP, this one is distinguished by focusing on forming medical competencies taking into account modern trends, international standards of professional activity of a doctor with the possibility of acquiring additional qualifications in the system of postgraduate education, continuing training at the scientific level of HE.

9.6. The content of the EPP will be upgraded according to the results of the self-evaluation based on the practical experience gained in the framework of the implementation of relevant grant projects, by comparing the content with the other universities' EPP, first of all foreign ones taking the leading positions in the market of educational services, comparing the positions of the university in thematic and institutional rating projects in the specialty; professional questionnaires, etc. The modernization will be based on an expert assessment of the relevance of the content of programs of academic disciplines, selective components in particular, by representatives of the labour market involving the ECE in terms of their compliance with the needs of the labor market; introduction of the external examination practice and reviewing of the EPP, lectures and practical lessons materials, etc. The achievements of modern science, research component, courses to improve the level of information technology, academic writing, data analysis, etc. are integrated into EPP.

9.7. The requirements for assessing the quality of education are constantly updated in the MI; this process is regulated by "Regulations on evaluation of the educational activity of applicants for the HE in the MI of SSU in the field of knowledge 22 "Health care" (https://bit.ly/3pyBbi2).

Forms of control measures and evaluation criteria for applicants within the educational components of the EP are clear, understandable, they provide an opportunity to establish the achievement of LO due to the fact that at the stage of developing control forms for the EP should correspond to the results of disciplines correlated with planned LO.

In order to determine the readiness of a graduate to carry out professional activities the OSCE is carried out, the methodology of which is based on the "Regulations on the organization and procedure of the OSCE" (https://bit.ly/2ZeQG4d). After completing the drafting of the OSCE, the examination commission prepares a report on the analysis of success, strengths and weaknesses, indicating ways to eliminate shortcomings, after which this report is considered and approved by the Academic Council of the MI of SSU.

9.8 The scope and forms of educational services for Pre-University preparation courses attendants have been expanded at the university, which, in particular, contributes to the formation of a career-oriented community of applicants. The system of pre-university education includes more than 20 institutions of general secondary education, the university centre of scientific and technical creativity of student youth, close cooperation with the Junior Academy of Sciences. SSU has created a regional network of centers for the preparation of youth for external evaluation (preparation for external evaluation at the centers of technical creativity of student youth or in the form of distance learning, etc.). The rules of admission to the EPP are annually revised under the conditions of admission for HE, approved by the MES, in particular for 2022 - https://bit.ly/3qnX7wI. The main changes in the rules of admission to the EPP in recent years included the introduction of a minimum score of 150 in the second and third competitive subjects (2018), a mandatory certificate in

mathematics as a second subject (2020-2021), the introduction of so-called "Wide" competition among all the higher education establishments of the state at admission to the CR "Medicine", etc.

Admission of foreign citizens has been carried out since 2005, which is regulated by the subclauses 6 in "Admission rules in SSU" (https://bit.ly/3jrSIEE). Changes in the geographic reach of foreign applicants are influenced by the processes of globalization, changes in national legislation and the legislation of partner countries on health education, the dynamics of medical needs of the regions. If 10-12 years ago the majority of applicants came from the Middle East, 6-8 years ago they were from Africa, today about half of the applicants are residents of India.

9.9 The SSU has developed a system of AS training, which is implemented in almost 50 departments (about 80% of their total number), there are 7 special councils, covering 13 specialties, including 11 doctoral; on average, more than 50 candidate and 10 doctoral dissertations are defended annually. Procedures and criteria for determining the relevant qualifications, professional level and AS performance are detailed in the "Procedure for competitive selection when filling vacant positions of SSU AS and concluding employment agreements (contracts) with them". This Procedure provides for the evaluation of the work efficiency for the previous period, in particular, following the requirements of the license conditions, and differentiates the terms of the next contract. The relevant Information Reference of the teacher represents an analogue of a teacher's academic profile. To stimulate AS continuous professional development aiming to obtain the competencies required for a modern specialist, the university has developed an accumulative system of accounting for the main results of professional development, which allows determining personalized indicators, including employees' participation in international internships, formalized certification programs, training, seminars, webinars, workshops, competitions of pedagogical innovations and other types of professional development. To intensify the teachers' efforts to ensure the quality of higher education, to disseminate the best practices and to provide additional motivation for AS, a number of competitions were introduced, including the competition of pedagogical innovations, for the best collection of educational materials published in open access on Open Course Ware, a contest of open online courses development, "ICT innovations for modern education ICT4EDU", "The best research and teaching staff", "The best teacher through the eyes of students", an experiment to test the model of blended learning and others. SSU actively implements long- and short-term programs of international academic mobility in order to improve the skills of AS, as well as administrative staff. Thus, every year about 150 employees of SSU improve their skills at leading universities in Europe and the world.

9.10 The updated "Regulations on the organization of the EP" (https://bit.ly/3Gehq5n) approve the criteria and mechanisms for monitoring, periodic review and improvement of educational programs, providing for the implementation of appropriate cyclical procedures related to the receipt

and analysis of information on the content and organizations of the EP through: expert assessment by labour market representatives of the relevance of the content of the EPP and the readiness of graduates for professional activities; assessment by HE applicants of the state of the EP organization through questionnaires and other situational measures; monitoring the success and academic achievements of higher education applicants; evaluation by WPG for the development and monitoring of EPP regarding the relevance of their content and the state of the organization; generalization and response to information regarding the content of the EPP, problem situations and violations of its implementation.

9.11 The improvement of the organizational structure and management principles is aimed primarily at ensuring effective performance in the situation when circumstances and needs have been constantly changing, due to the system of internal quality of educational activities and quality of higher education SSU, which is based on the Law of Ukraine "On HE", "On Education" and Standards and recommendations for quality assurance in the European HE Area (ESG, 2015). For now, the university has formed an internal regulatory framework of the quality system, which includes: Conceptual principles of SSU, development strategy for 2020-2026, implementation measures and forecasts (https://bit.ly/3vEtesw), Code of Corporate Culture of SSU (https://bit.ly/3k8fNNa), and the key document that determines the institutional framework and regulates the quality assurance process is the Regulations on the CHEQA of the structural unit (institute, educational and scientific institute, faculty, center of correspondence, distance and evening education) of SSU " (https://bit.ly/3k8pHyj).

In order to improve management, assess the potential and stimulate the level of improving the quality of SSU performance, MI in particular, the Methodology for determining the rating of structural units (https://bit.ly/3G8xXb3) was created.

The Supervisory Board (https://bit.ly/3G8xXb3) was established to improve the efficiency of work, identify ways of long-term development, cooperation with public administration bodies and promote the strategic improvement of the EP as well as its methodological support, research and international activities.

Control and analysis of the quality of the organization of the EP at the MI of SSU are presented by the Decision of the Academic Council: "Status of quality training, development of research and provision of medical services in the MI, including those located at the university clinic and sanatorium" from 20.04.2017 (https://bit.ly/3C7K4Th), which considered these issues and measures for further development. The revision was held at the meeting of the Academic Council of SSU from 08.04.2021: "The state of quality assurance of training and development of scientific activity in the MI" (https://bit.ly/3B8Q1y2). Forward-looking recommendations were provided on how to improve the work of the MI and the EPP.

SWOT analysis table

Strengths	Weaknesses
The availability of the procedures for regular review of	-
content, results/competencies, assessment and learning	
environment, structure and functions, mechanisms for	
documenting and elimination of disadvantages.	
The policy of students' enrollment by the EPP takes into	
account changes in expectations and circumstances, the	
necessities of human resources, changes in the system of	
postgraduate education.	
The staff policy as for the formation of the academic staff	
corresponds to the identified needs of the EPP.	
Opportunities	Threats
The selection of the best academic staff in the conditions of	The dependence of the number of
competitive environment.	full-time staff units of the institution
	on the results of students`
	enrollment for the EPP.
	The predominance of international
	students in the contingent during the
	recent years.

According to the standard "CONSTANT UPDATE" 11 criteria are disclosed, of which 0 have a strong position, 11 - satisfactory and 0 - suggests improvement.

VI SELF-ASSESMENT COMMISSION REPORT

No.	N o.		CRITERIA FOR ASSESSMENT	Position of educational organization			
		Crite ria No.		St ro n g	Sati sfac tor y	Sug gest s imp rov em ent	uns at is fa ct or y
		1.	"MISSION AND OUTCOME"	ı	I		
1	1	1.1 1.1.1	Mission definition The medical educational organization should determine the mission of the		+		
			educational programme of the postgraduate level				
2	2	1.1.2.	The medical education organization should bring the mission of the postgraduate		+		
			educational programme to the attention of stakeholders and the health sector The medical education organization should determine a training programme that				
			allows to prepare a specialist at the level of postgraduate medical education:				
3	3	1.1.3	competent in any field of medicine, including all types of medical practice,		+		
			management and health organization				
4	4	1.1.4	able to work for work at a high professional level.		+		
5	5	1.1.5	able to work unattended, independently and in a team, if necessary.		+		
0	0	1.1.0	with a commitment to lifelong learning, including a professional responsibility to maintain knowledge and skills through performance assessment, auditing, self-study and recognized activities in <i>CPD / CME</i> .		+		
7	7	1.1.7	The medical education organization should ensure that the mission covers		+		
			consideration of the health needs of the community or society, the needs of the				
			health care system and other aspects of social responsibility, if necessary Medical education organization should be encouraged:				
8	8	1.1.8	innovation in the educational process, allowing the development of broader	+			
	O	1.1.0	competencies than the minimum necessary.	'			
9	9	1.1.9	improving patient care that is necessary, effective and compassionate in addressing health problems and promoting health.		+		
10	1 0	1.1.1 0	organization and conduct of scientific research of students of the postgraduate level.	+			
		1.2	Participation in the formulation of the mission				
11	1	1.2.1	Medical education organization should ensure that the main stakeholders are		+		
12	1	1.2.2	involved in the development of the educational programme mission The medical education organization should ensure that the stated mission is based		+		-
12	2	1.2.2	on the opinions / suggestions of other relevant stakeholders.		'		
		1.3	Institutional autonomy and academic freedom				
13	1	1.3.1	The medical education organization should have a training process that is based on		+		
	3		recognized basic and postgraduate medical education and helps to strengthen the				
14	1	1.3.2	professionalism of the student The medical education organization should ensure that the training process will	+			
	4	1.3.2	promote professional autonomy to enable the graduate to act in the best interests of the patient and society.				
		1.4	Final learning outcomes				
			The medical education organization should determine the expected learning outcomes that students should achieve in learning outcomes in relation to:				
15	1 5	1.4.1	their achievements at the postgraduate level in terms of knowledge, skills and thinking;		+		
16	1 6	1.4.2	appropriate foundation for a future career in the chosen field of medicine;		+		
17	1 7	1.4.3	future roles in the health sector;		+		
18	1 8	1.4.4	commitment and skills in the implementation of continuing education;	_	+		
19	1 9	1.4.5	community health needs, health system needs and other aspects of social responsibility;		+		

20	2	1.4.6	professional behavior		+		
20	0	1.4.0	professional behavior		Т		
			The medical education organization should determine:				
21	2	1.4.7	General and specific to the specialty (discipline) components of educational		+		
	1		results that are required to be achieved by students.				
22	2	1.4.8	appropriate behavior towards undergraduates and other students, teachers, patients		+		
	2		and their relatives in accordance with the proper norms of behavior.				
1	2	3	4	5	6	7	8
23	2	1.4.9	The medical education organization should determine educational results based on	+			
<i>m</i> . 1	3		the results obtained at the level of basic medical education.	4	10		
Total				4	19		
		2.	STANDARD "EDUCATIONAL PROGRAMME"				
		2.1	Teaching approach				
			The medical education organization should:				
24	1	2.1.1	define an educational programme based on the results of existing basic medical		+		
2.5	2	2.1.2	education, organize a teaching approach in a systematic and transparent manner.				
25	2	2.1.2	describe the general and discipline / specialty-specific components of training.		+		
26 27	3	2.1.3	use teaching and learning methods that are suitable for both practice and theory identify the <i>teaching and learning</i> methods used that encourage, prepare and	+			
21	4	2.1.4	support students to take responsibility for their learning process.	+			
28	5	2.1.5	Ensure that the educational programme is implemented in accordance with the		+		
-			principles of equality.		'		
			The medical education organization should:				
29	6	2.1.6	have a system / procedures and guide the student through mentoring and		+		
			regular assessment and feedback.				
30	7	2.1.7	increase the degree of self-responsibility of the student as skills, knowledge and		+		
			experience improve.				
		2.2	Scientific method				
			The medical education organization should:				
31	8	2.2.1	teach students the principles of scientific methodology in accordance with the level	+			
			of postgraduate education and provide evidence that the student achieves				
			knowledge and understanding of the scientific base and methods of the chosen field of medicine;				
32	9	2.2.2	provide evidence that the student is exposed to evidence-based medicine as a result		+		
			of wide access to relevant clinical / practical experience in the chosen field of				
			medicine				
			The medical education organization should:				
33	1	2.2.3	include formal teachings on critical appraisal of literature and scientific evidence		+		
	0		in the EP.				
34	1	2.2.4	provide the student with access to scientific activities	+			
2.5	1	22.7					
35	1	2.2.5	in the educational programme to correct and change the content of scientific		+		
	2	2.3	developments. Learning content				\vdash
	1	4.3	The medical education organization should include in the learning process the				\vdash
			practice and theory about:				
36	1	2.3.1	biomedical, clinical, behavioral and social sciences		+		
	3						
37	1	2.3.2	clinical solutions		+		
	4						
38	1	2.3.3	communication skills.		+		
	5						igsquare
39	1	2.3.4	medical ethics		+		
40	6	225	muhlio hoolth				
40	1 7	2.3.5	public health		+		
41	1	2.3.6	medical jurisprudence		+		
71	8	2.3.0	incurear jurisprudence		'		
42	1	2.3.7	management disciplines		+		
	9						
43	2	2.3.8	Organize an educational programme with appropriate attention to patient safety		+		
-			- · · · · · · · · · · · · · · · · · · ·			100	

	0						
	0		The medical educational organization should adjust and make changes in the educational programme for:				
44	2	2.3.9	ensuring the development of knowledge, skills and thinking of the different roles of the graduate;		+		
45	2 2	2.3.1	correspondence of the content of the EP to the changing conditions and needs of society and the health care system.	+			
		2.4	The structure of the educational programme, composition and duration				+
		2.4	The medical education organization should:				1
46	2	2.4.1	describe the content, volume and sequence of courses and other elements of the		+		
10	3	2.1.1	educational programme				
47	2 4	2.4.2	define required and optional components		+		
48	2 5	2.4.3	combine practice and theory in the learning process		+		
49	2 6	2.4.4	ensure compliance with national legislation		+		
			The medical education organization should be included in the educational programme:				
50	2 7	2.4.5	take into account the results of basic medical education in relation to the choice of the field of medicine		+		
51	2 8	2.4.6	requirements for the performance of various roles in the health care system for the future graduate		+		
1	2	3	4	5	6	7	8
		2.5	Relationship between education and health practice				
52	2 9	2.5.1	Describe and respect the integration between theoretical training and professional development.		+		
53	3 0	2.5.2	Ensure the integration of training and professional training, including through on- the-job training.		+		
			The medical education organization should be included in the educational programme:				
54	3	2.5.3	effectively organize the use of the capabilities of the health care system for training purposes, including in terms of providing practice in the workplace.		+		
55	3 2	2.5.4	ensure that such training is optional and not subject to the requirements for the provision of medical services.		+		
		2.6	Learning management				
			The medical education organization should:				
56	3	2.6.1	define responsibilities and authorities for organizing, coordinating, managing and evaluating the individual learning environment and learning process.		+		
57	3 4	2.6.2	include in the planning and development of the educational programme proper representation from teaching staff, students and other relevant stakeholders.		+		
			Medical education organization should be included in the educational programme:				
58	3 5	2.6.3	guarantee a variety of learning locations.		+		
59	3 6	2.6.4	coordinate multiple training locations to obtain		+		
			appropriate access to different aspects of the chosen field of medicine				
60	3 7	2.6.5	have access to the resources needed to plan and implement teaching methods.	+			
61	3 8	2.6.6	have access to the resources needed to plan and implement student assessment.	+			
62	3	2.6.7	have access to the resources needed to plan and innovate the training programme.	+			
Total				8	31	0	
		3.	STANDARD "ASSESSMENT OF STUDENTS"				
		3.1	Assessment methods				
			The medical education organization should:				
63	1	3.1.1	present the process of evaluating students in EP		+		
64	2	3.1.2	define, approve, and publish the principles, methods, and practices used to evaluate		+		
			students, including the number of exams and other tests, maintaining a balance			101	

						1	
			between written and oral exams, using criteria-based and reasoning-based assessment methods, and special exams and define criteria for establishing passing				
<i>C</i> =	2	2 1 2	scores, grades, and the number of allowed retakes;				
65 66	3	3.1.3	ensure that the assessment covers knowledge, skills, and attitudes to learning; use a wide range of assessment methods and formats depending on the "utility"		+		-
00	4	3.1.4	assessment", which includes a combination of validity, reliability, impact on learning, acceptability and effectiveness of the assessment methods and format;		+		
67	5	3.1.5	formulate criteria for passing exams or other types of assessment, including the number of allowed retakes;		+		
68	6	3.1.6	use assessment methods that provide formative teaching methods and constructive feedback.		+		
			Medical education organizations should:				
69	7	3.1.7	document and evaluate the reliability and validity of assessment methods, which		+		\vdash
	ŕ	3.1.7	requires an appropriate quality assurance process for existing assessment practices;		•		
70	8	3.1.8	implement new assessment methods in accordance with the need;		+		
71	9	3.1.9	use the system to appeal the evaluation results.		+		
72	1 0	3.1.1	encourage a process of external review of assessment methods;		+		
73	1 1	3.1.1	use a system for appealing assessment results;		+		
74	1 2	3.1.1	if necessary, organize a "different opinion", change of teaching staff or additional training		+		
		3.2	Relationship between assessment and learning				
			The medical education organization should use the principles, methods and practice of assessment, including the educational achievements of students and the assessment of knowledge, skills, professional values of relationships, which:				
75	1 3	3.2.1	clearly comparable to teaching methods, teaching and learning outcomes;		+		
76	1 4	3.2.2	ensure that students achieve the final learning outcomes;		+		
77	1 5	3.2.3	contribute to the training of students;		+		
78	1 6	3.2.4	provide an appropriate balance between formative and summative assessment to guide learning and measure a student's academic progress, which requires establishing rules for assessing progress and their relationship to the assessment process.		+		
			Medical education organizations should:				
1	2	3	4	5	6	7	8
79	1 7	3.2.5	use principles, methods and practices that encourage integrated learning;		+		
80	1 8	3.2.6	encourage integration with practice, including clinical practice;		+		
81	1 9	3.2.7	ensure the provision of timely, specific, constructive and fair feedback to undergraduates based on the results of the assessment.		+		
Total				0	19	0	
		4.	STANDARD "STUDENTS"				
		4.1	Admission and selection policy				
			The medical education organization should:				
82	1	4.1.1	define and implement an admission policy based on the mission of the organization and including a clearly defined position on the student selection process;		+		
83	2	4.1.2	Ensure a balance between learning opportunities and student acceptance		+		
84	3	4.1.3	formulate and implement policy / rules for the selection of students according to the established criteria		+		
85	4	4.1.4	have a policy and implement the practice of admitting students with disabilities in accordance with applicable laws and regulations of the country;		+		
86	5	4.1.5	have a policy of transferring students from other programmes and medical education organizations;		+		
87	6	4.1.6	include medical professional organizations in the policy development and student selection process.		+		

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			The medical education organization should:				
88	7	4.1.7	guarantee the transparency of the selection procedure;		+		
89	8	4.1.8	ensure transparent admission to all qualified graduates of basic medical education		+		
90	9	4.1.9	consider, as part of their selection procedure, the specific opportunities of potential students in order to improve the learning outcome in the chosen field of medicine		+		
91	1 0	4.1.1 0	enable an appeal mechanism on admission decisions		+		
92	1	4.1.1	periodically review admission policies based on relevant social and professional evidence to meet the health needs of the community and society.		+		
		4.2	Number of students				
93	1 2	4.2.1	The medical education organization should determine the number of accepted students in accordance with the material and technical capabilities and capabilities at all stages of education and training. The medical education organization should:		+		
0.4	1	1.2.2					
94	1 3	4.2.2	consider the number and size of enrolled students in consultation with relevant stakeholders responsible for planning and developing human resources in the health sector.		+		
		4.3	Consulting and support for students				
			The medical education organization should:				
95	1 4	4.3.1	have an academic advisory policy / system for undergraduates.		+		
96	1 5	4.3.2	Have policies / mechanisms to support undergraduates focused on social, financial and personal needs, allocating appropriate resources for social and personal support.	+			
97	1 6	4.3.3	guarantee the confidentiality of advice and support provided.		+		
98	1 7	4.3.4	provide for the allocation of resources to support undergraduates	+			
99	1 8	4.3.5	The medical education organization should provide support in the event of a professional crisis and problem situations.	+			
		4.4	Student representation				
			The medical education organization should determine and implement <i>a policy of student representation and their respective participation</i>				
100	1 9	4.4.1	in the development of the EP;		+		
101	2 0	4.4.2	in the management of the OP;		+		
102	2	4.4.3	evaluation of the educational programme;		+		
103	2 2	4.4.4	planning conditions for students		+		
104	2 3	4.4.5	The medical education organization should encourage students to participate in making decisions about the processes, conditions and rules of learning		+		
Total				3	20	0	
		5.	STANDARD "ACADEMIC STAFF / TEACHERS"				
		5.1	Personnel selection policy				
			The medical education organization should define and implement <i>a selection and staff</i> admission policy that:				
105	1	5.1.1	Takes into account the necessary work experience;		+		
1	2	3	4	5	6	7	8
106	2	5.1.2	contains criteria for the scientific, pedagogical and clinical merit of applicants, including the proper balance between pedagogical, scientific and clinical qualifications;	+			
107	3	5.1.3	defines their responsibilities;		+		
108	4	5.1.4	Defines the responsibilities of training, including the balance between teaching, research and other functions		+		
09	5	5.1.5	take into account the mission of the EP		+		
			The medical education organization should take into account such criteria in its policy on the selection and admission of employees as:				

110	6	5.1.6	determine the responsibility of the academic staff in terms of its participation in		+		
			postgraduate education;				
111	7	5.1.7	determine the level of remuneration for participation in postgraduate education;	+			
112	8	5.1.8	ensure that instructors have practical experience in the relevant field;	+			
113	9	5.1.9	ensure that faculty members in specialized fields are approved for appropriate		+		
			periods of study, if necessary.				
		5.2	Employee commitment and development				
			The medical education organization should:				
114	1	5.2.1	Ensure that students and teachers have sufficient time for teaching, counseling and		+		
	0		self-study				
			The medical education organization should:				
115	1	5.2.2	take into account the ratio of "teacher-student" depending on the various		+		
	1		components of the educational programme and taking into account the peculiarities				
			of the educational programme;				
116	1	5.2.3	develop and implement a policy to support employees, including self-training and	+			
	2		further professional development;				
117	1	5.2.4	evaluate and acknowledge the scientific and academic achievements of teachers.	+			
Total	3			5	8	0	
10iai		6.	STANDARD "EDUCATIONAL ENVIRONMENT AND RESOURCES"	3	o	U	
		6.1	Material and technical base				
		0.1					\vdash
118	1	6.1.1	The medical education organization should provide students with: a sufficient <i>material and technical base</i> to ensure adequate implementation of the				\vdash
118	1	0.1.1	educational programme, space and opportunities for practical and theoretical	+			
			research;				
119	2	6.1.2	access to up-to-date professional literature;	+			
120	3	6.1.3	adequate information and communication technologies;	+			
121	4	6.1.4	modern equipment for teaching practical methods.	·		+	
121		0.1.1	The medical education organization should :				
22	5	6.1.5	improve the learning environment by regularly updating, expanding and		+		
22	3	0.1.5	strengthening the material and technical base and equipment to maintain the		'		
			appropriate quality of education at the postgraduate level.				
		6.2	Educational environment				
			The medical education organization should provide the necessary resources for the				
			acquisition of adequate practical experience by students, including the following:				
123	6	6.2.1	selection and approval of the educational environment;		+		
124	7	6.2.2	having access to sufficient clinical / practice tools / facilities to provide training;		+		
125	8	6.2.3	a sufficient number of patients, where necessary;		+		
126	9	6.2.4	appropriate diverse clinical cases to achieve the goals and objectives of training;		+		
127	1	6.2.5	organization of training in such a way as to provide the student with a wide		+		
	0		experience in the chosen field of medicine.				
			When choosing a learning environment, a medical education organization should:				
128	1	6.2.6	guarantee the number of patients and the corresponding varied clinical cases,		+		
	1		allowing for clinical experience in all aspects of the chosen specialty, including				
			training in organization and management in the field of health care and disease				
120			prevention				
129	1	6.2.7	teaching at a university clinic, as well as teaching at other relevant cinemas /		+		
	2	6.3	institutions and community facilities / locations, as appropriate. Information Technology				\vdash
130	1	6.3.1					
130	1 3	0.3.1	The medical education organization should determine and implement a policy that is aimed at the <i>effective use and assessment of appropriate information and</i>	+			
	ر		communication technologies in the educational programme.				
			The medical education organization should provide teachers and students with				
			opportunities and encourage them to use information and communication				
			technologies:				
131	1	6.3.2	for self-study	+			
	4						<u> </u>
			4	5	_	7	8
1	2	3		3	6	/	-
132	2 1 5	6.3.3	access to health information resources and relevant patient data;	3	+	1	

133	1 6	6.3.4	patient management;		+		
134	1 7	6.3.5	work in the health care system to provide medical care.		+		
		6.4	Medical and scientific research				
			The medical education organization should :				
135	1	6.4.1	Introduce the methodology of scientific medical research into the educational		+		
	8		programme.				
			The medical education organization should :				
136	1 9	6.4.2	encourage students to participate in medical scientific research on the state and quality of health of the population and the health care system	+			
137	2 0	6.4.3	provide access to research facilities and activities in training locations	+			
		6.5	Expertise in Education				
			The medical education organization should :				
138	2	6.5.1	develop and implement a policy on the use of expertise at the stage of planning, implementation and evaluation of training for a specific educational programme.		+		
			The medical education organization should :				
139	2	6.5.2	have access to educational expertise, where necessary, and conduct expertise that		+		
	2		examines the processes, practices and issues of medical education and may involve physicians with experience in research in medical education, psychologists and sociologists in education, or experts from other nationalities and international institutions.				
140	2 3	6.5.3	promote the aspirations and interests of employees in research in medical education.		+		
		6.6	Exchange in education				
			The medical education organization should define and implement a policy for:				
141	2 4	6.6.1	the availability of individual training opportunities in other educational institutions of the appropriate level within or outside the country;	+			
142	2 5	6.6.2	transfer and offset of educational loans and learning outcomes.	+			
			The medical education organization should :				
143	2 6	6.6.3	promote regional and international exchange of staff (academic, administrative and teaching staff) and students, providing appropriate resources;	+			
144	2 7	6.6.4	establish links with relevant national and international bodies in order to facilitate exchange and mutual recognition of learning elements.	+			
Total				1 1	15	1	
		7.	STANDARD "ASSESSMENT OF THE EDUCATIONAL PROGRAMME"				
		7.1	Monitoring, control and evaluation mechanisms of the programme				
			The medical education organization should :				
145	1	7.1.1	have mechanisms for monitoring the educational programme, taking into account the mission, the required final learning outcomes, the content of the educational programme, the assessment of knowledge and skills, educational resources.		+		
146	2	7.1.2	evaluate the programme in relation to student admission policy and the needs of the education and health care system for medical personnel.		+		
147	3	7.1.3	ensure stakeholder participation in programme evaluation.		+		
148	4	7.1.4	The medical education organization should provide mechanisms to ensure transparency of the process and results of the evaluation of the educational		+		
T			programme for the management and all interested parties.		A	0	
Total		8.	STANDARD "MANAGEMENT AND ADMINISTRATION"	0	4	0	
		8.1	Management Management				
		3,1	The medical education organization should ensure that the educational programme				
			is implemented in accordance with the rules regarding:				
149	1	8.1.1	student admissions		+		
150	2	8.1.2	structure and content		+		
151	3	8.1.3	processes		+		
152	4	8.1.4	evaluation		+		

153	5	8.1.5	intended results.		+		
133		0.1.5	The medical education organization should guarantee a continuous assessment of:				+
154	6	8.1.6	educational programmes for various types of postgraduate medical education		+		+
155	7	8.1.7	institutes / faculties / departments and other educational structures implementing		+		
			the learning process				
1	2	3	4	5	6	7	8
156	8	8.1.8	teachers		+		
157	9	8.1.9	The medical education organization should be responsible for quality development		+		
			programmes.				
1.50	1	0.1.1	The medical education organization should guarantee:				_
158	1 0	8.1.1 0	in the future, the application of procedures for checking the outcomes and competencies of graduates for use by both national and international bodies		+		
159	1 1	8.1.1	transparency of the work of management structures and their decisions		+		
	1	8.2	Academic leadership				+
160	1	8.2.1	Medical education organization should clearly define the responsibility of the		+		+
100	2	0.2.1	academic leadership in relation to the development and management of the educational programme.		•		
			The medical education organization should periodically assess the academic				
		0.5 -	leadership regarding the achievement of:				\perp
161	1 3	8.2.2	mission of the postgraduate educational programme		+		
162	1 4	8.2.3	final learning outcomes for this educational programme.		+		
		8.3	Funding and resource allocation				
			The medical education organization should :				
163	1 5	8.3.1	determine the responsibility and authority for managing the budget of the educational programme;		+		
			The medical education organization should manage the budget in such a way as to comply with:				
164	1 6	8.3.2	mission and results of the educational programme;		+		
165	1 7	8.3.3	ensuring the functional responsibilities of the academic staff and students.		+		
		8.4	Administrative staff and management				
			The medical education organization should have an <i>appropriate administrative staff, including their number and composition in accordance with qualifications</i> , in order to:				
166	1 8	8.4.1	ensure the implementation of the educational programme and related activities;		+		
167	1 9	8.4.2	ensure proper management and allocation of resources.		+		
			The medical education organization should :				
168	2 0	8.4.3	develop and implement an internal management quality assurance programme that includes consideration of needs for improvement;		+		
169	2 1	8.4.4	regularly review and review management to improve quality		+		
		8.5	Requirements and provisions				
170	2 2	8.5.1	The medical education organization should comply with national legislation regarding the number and types of recognized medical specialties for which approved curricula are developed.		+		
171	2 3	8.5.2	The medical education organization should identify approved postgraduate medical education programmes in collaboration with all stakeholders.		+	1	
Total	-	<u> </u>	1	0	23	0	\Box
		9.	STANDARD "CONSTANT UPDATE"				
			The medical education organization as a dynamic and socially responsible institution should ensure that there will be:				
172	1	9.1	initiate procedures for regular review and revision of content, results / competence, assessment and learning environment, structure and function, document and correct deficiencies;		+		
i							لــــــــــــــــــــــــــــــــــــــ

173	2	9.2	allocate resources for continuous improvement		+		
			The medical education organization should ensure that:				
174	3	9.3	the renewal process will be based on forward- looking research and analysis and on the results of their own study, assessment and literature on postgraduate medical education;		+		
175	4	9.4	the renewal and restructuring process will lead to a revision of its policies and practices in line with past experience, current activities and perspectives. The medical education organization in the process of renewal and continuous		+		
			improvement should ensure that special attention is paid to:				
176	5	9.5	adaptation of the mission and outcomes of postgraduate medical education to the scientific, socio-economic and cultural development of society for the future;		+		
177	6	9.6	modification of the intended outcomes of postgraduate education in the selected health care field in accordance with the documented needs of the environment. Changes may include adjusting the structure and content of the educational programme, principles of active learning. The adjustment will ensure, along with the elimination of obsolete ones, the assimilation of new relevant knowledge, concepts, methods and concepts based on new advances in the basic biomedical, clinical, behavioral and social sciences, taking into account changes in the demographic situation and the structure of the population on public health issues, as well as changes socio-economic and cultural conditions;		+		
178	7	9.7	development of assessment principles, methods of administration and number of examinations in accordance with changes in learning outcomes and teaching and learning methods;		+		
179	8	9.8	adaptation of the recruitment and selection policy for graduate students, taking into account changing expectations and circumstances, human resource requirements, changes in the postgraduate education system and the needs of the educational programme;		+		
180	9	9.9	adaptation of the recruitment and formation policy of the academic staff in accordance with changing needs;		+		
181	1 0	9.10	Improving the process of monitoring and evaluating the educational programme.		+		
182	1	9.11	The medical education organization should ensure that the improvement of the organizational structure and management principles will be aimed at ensuring effective performance in the face of changing circumstances and needs, and, in the long term, at meeting the interests of various stakeholder groups.		+		
Total			0	11	0		
TOTAL			3 0	149	3		