

ASIIN Seal

Accreditation Report

Bachelor's Degree Programme Preventive Medicine

Master's Degree Programmes Preventive Medicine Public Health

Provided by Al-Farabi Kazakh National University Almaty, Kazakhstan

Version: 23rd March 2018

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A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for ¹	Previous accredita- tion (issu- ing agency, validity)	Involved Technical Commit- tees (TC) ²		
Бакалавр медицинских наук по специальности Медико- профилактическое дело	Ba Preventive Medi- cine	ASIIN	none	10		
Магистр медицинских наук по специальности Медико- профилактическое дело	Ma Preventive Med- icine	ASIIN	none	10		
Магистр медицинских наук по специальности Общественное здравоохраниение	Ma Public Health	ASIIN	none	10		
Submission of the final version of the self-assessment report: 31.10.2016 Date of the onsite visit: 21. – 23.11.2016 at: Almaty						
Peer panel:						
Yulduzkhan Dauytova, Student, Asfendiyarov Kazakh National Medical University Prof. Dr. Axel Olaf Kern, University of Applied Sciences Ravensburg-Weingarten						
DiplIng. Manfred Kindler, Kindler International Division, Werne						
Prof. Dr. Dr. Oliver Müller, University of Applied Sciences Kaiserslautern						
Prof. Dr. Hans-Joachim Wagner, University Tuebingen						
Representative of the ASIIN head	quarter: Rainer Arnold					

¹ ASIIN Seal for degree programmes

² TC 10 – Life Sciences

Responsible decision-making committee: Accreditation Commission for Degree Pro-				
grammes				
Criteria used:				
European Standards and Guidelines as of 10.05.2015				
ASIIN General Criteria, as of 04.12.2015				
Subject-Specific Criteria of Technical Committee 10 – Life Sciences as of 09.12.2011				

In order to facilitate the legibility of this document, only masculine noun forms will be used hereinafter. Any gender-specific terms used in this document apply to both women and men.

B Characteristics of the Degree Programmes

a) Name	Final degree (origi- nal/English translation)	b) Areas of Specialization	c) Correspond- ing level of the EQF ³		e) Dou- ble/Joint De- gree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Ba Preventive Medicine	Bachelor of Medical Sci- ences in Pre- ventive Medi- cine	-	6	Full time	No	10 Semester	274 ECTS, 135 Kazakh Credit Points	Fall term 01.09.2014
Ma Preventive Medicine	Master of Medical Sci- ences in Pre- ventive Medi- cine	Epidemiology in Preventive Medicine; Hygiene in Preventive Medicine	7	Full time	No	4 Semester	120 ECTS, 65 Kazakh Credit Points	Fall term 01.09.2014
Ma Public Health	Master of Medical Sci- ences in Public Health	Health Policy and Manage- ment; Community Health	7	Full time	No	4 Semester	120 ECTS, 65 Kazakh Credit Points	Fall term 01.09.2016

³ EQF = The European Qualifications Framework for lifelong learning

For the <u>Bachelor's degree programme Preventive Medicine</u> the Al-Farabi National Kazakh University has presented the following profile in its Self Assessment Report:

"The objective of a programme is formation of students cross-cultural and professional competencies to successfully develop and apply technology, tools, methods and techniques of medical activities aimed at provision of sanitary-epidemiological welfare of the population, to maintain and improve their health, as well as the supervision of consumerrights protection."

For the <u>Master's degree programme Preventive Medicine</u> the Al-Farabi National Kazakh University has presented the following profile in its Self Assessment Report:

"Preparing students to conduct research and training sessions at universities and medical schools as well as work in sanitary-epidemiologic and health care systems, the acquisition of practical skills, improve and develop theories and methods for scientific work and studying the processes of knowledge transfer; the practical application of the knowledge and results in different fields of epidemiology, sanitary, hygiene, medicine and health care."

"The main focus of the Master's program is to train highly competent, competitive specialists in Preventive Medicine, professionals with a high level of training in Preventive medicine with scope on hygiene and epidemiology, and prevention of infectious diseases."

For the <u>Master's degree programme Public Health</u> the Al-Farabi National Kazakh University has presented the following profile in its Self Assessment Report:

"Preparing students to conduct research and training sessions at universities and medical schools as well as work in health care system, the acquisition of practical skills, improve and develop theories and methods for scientific work and studying the processes of knowledge transfer; the practical application of the knowledge and results in different fields of medicine and health care."

"The main focus of the Master's program is to train highly competent, competitive specialists in Public Health area, Public Health professionals with a high level of training in Health Care and Community Health, capable of self-development and social adjustment."

C Peer Report for the ASIIN Seal

1. The Degree Programmes: Concept, content & implementation

Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

Evidence:

- Self Assessment Report
- Objectives-Modules-Matrix
- Homepage of the university: http://www.kaznu.kz/en/

Preliminary assessment and analysis of the peers:

The auditors hold the opinion that the objectives and intended learning outcomes of the <u>Bachelor's degree programme Preventive Medicine</u> are comprehensive and well founded. The students acquire a sound fundamental basis in the basic medical and natural sciences, gain methodological competences, and are able to carry out practical work in laboratories. They receive an university training with a focus on the solution of public health problems. The graduates are also able to solve subject-relevant problems and can present the results. In addition, they have trained their analytical and logical abilities and have an awareness of the possible social, ethical, and psychological effects of their actions. During the course of their studies, the students have also acquired communicative skills, can work in a team, and have developed a strategy for life-long learning.

The graduates of the <u>Master's degree programme Preventive Medicine</u> have acquired an understanding of the different levels of preventive medicine, know about the fundamental sciences underlying preventive medicine, are informed about current health issues and appropriate ways to solve them, understand the main achievements and trends in preventive medicine, and can make use of health related legislation and concepts. Moreover, they are able to apply research methods in preventive medicine and to plan and perform scientific and teaching activities. Furthermore, the graduates have learned to broaden and deepen their professional knowledge based on information and educational technologies in order to enrich their personal competences and to find solutions to scientific problems. During the course of their studies, the students have also acquired communicative skills, can work in a team, and have developed a strategy for lifelong learning.

The auditors hold the opinion that the objectives and intended learning outcomes of the <u>Master's degree programme Public Health</u> are comprehensive and well founded. The graduates understand the different stages of development of public health and public health systems, know about urgent und current health issues and modern ways to solve them, and can make use of recent scientific information and methods of data analysis. In addition, they understand the foundations of psychology and pedagogy for practical implication and can apply this knowledge in order to analyze social problems and processes. They have learned to work in a team, how to conduct research projects, and how to express themselves in a correct and logical form both orally and in writing. Finally, they are able to use modern information technologies and the principles of evidence-based medicine in their scientific activities.

The peers appreciate the provided Subject-Specific-Criteria based Objectives-Module-Matrices for all three degree programmes that contain well formulated descriptions of the intended learning outcomes. They emphasize that the description of the respective degree profile in the Self Assessment Report is very helpful to assess the concept, content and implementation of the learning objectives. Unfortunately, this profile was not submitted for the <u>Bachelor's degree programme Preventive Medicine</u>. So the peers ask the programme coordinators to provide this degree profile.

The peer group judges the objectives and learning outcomes of the degree programmes to reflect the intended level of academic qualification and to correspond with the ASIIN Subject-Specific-Criteria (SSC) of the Technical Committee 10 – Life Sciences.

As will be described in more detail in Crit. 5.2 the peers notice that the qualification objectives are not accessible for all stakeholders. Therefore, they expect that Al-Farabi KazNU provides access to the qualification objectives and intended learning outcomes for all stakeholders. This could for example be achieved by publishing them on the university's homepage.

Finally, the auditors confirm that while developing the objectives and learning outcomes Al-Farabi KazNU has also taken into account the situation on the national job market and has included the relevant stakeholders in the process of formulating and further developing the objectives and learning outcomes.

Criterion 1.2 Name of the degree programme

Evidence:

• Self Assessment Report

Preliminary assessment and analysis of the peers:

The auditors hold the opinion that the English translation and the original Russian/Kazakh names of the Bachelor's and Master's degree programmes correspond with the intended aims and learning outcomes as well as the main course language.

Criterion 1.3 Curriculum

Evidence:

- Self Assessment Report
- Objectives-Modules-Matrix
- Module descriptions
- Curricular overview

Preliminary assessment and analysis of the peers:

There is an individual education plan for each student, is it signed at the beginning of each semester, it helps the university to plan the staff requirements and the organization of classes. As a result, the students have to decide which electives to choose from at the beginning of each semester. It is possible for the students to change this plan within the first weeks of the semester, and it is also possible to choose an individual focus or a special area of interest and to follow that through the studies.

All the classes are taught in Russian and in Kazakh. In each degree programme there is one group of students that attends the classes in Russian and a different group of students that attends the classes in Kazakh. At the beginning of their studies, the students are divided into two groups according to their mother tongue; the teaching staff is bilingual and can teach in both languages. In addition, there is a small group of students that attends classes in Russian, Kazakh and English (in the Master programmes).

The curriculum of the <u>Bachelor's degree programme Preventive Medicine</u> contains state compulsory modules (e.g. "History of Kazakhstan", "Foreign Language"), elective social and communicative modules (e.g. "Kazakhstan Law", "Psychology of Interpersonal Cum-

munication", "Culture and Religion"), basic professional modules in the areas Natural Sciences, Basis of Medicine and Biology, Basics of Medicine, Clinical Medicine, Hygiene, Epidemiology, and Public Health, practical training, and the Bachelor's thesis. In addition, the students can choose if they want to follow the individual educational trajectory 1 "Hygiene" or the individual educational trajectory 2 "Epidemiology" in order to broaden and deepen their knowledge in one of these areas.

Practical training enables the students to work in teams, while the Bachelor's thesis establishes interdisciplinary relations by linking previously acquired professional competences of different modules. The students also learn to present and discuss scientific topics with experts and fellow students.

The peers ask the programme coordinators why 274 ECTS credit points are awarded in the <u>Bachelor's degree programme Preventive Medicine</u> and why it is designed for 10 semesters. This length and the amount of workload is very unusual for a Bachelor's degree programme especially since it is mentioned in the Self Assessment Report that Bachelor's degree programmes at Al-Farabi KazNU usually comprise 240 ECTS credit points during 8 semesters of study. The programme coordinators explain that the curriculum is going to be changed substantially next year and that it is planned to shorten it to 8 semesters. The current curriculum is derived on the basis of Bachelor's degree programmes at Medical Universities in Kazakhstan. The peers point out that Faculty of Medicine should inform them about the planned changes after they have been confirmed by the national ministry of education.

The curriculum of the <u>Master's degree programme Preventive Medicine</u> consists of state compulsory modules ("History of Kazakhstan", "Foreign Language", "Pedagogics", "Psychology"), compulsory professional modules ("Research in Preventive Medicine", "Health Legislation and Bioethics"), and includes professional practice and research work - including the Master's thesis. In addition, the students can chose to specialize in the areas "Epidemiology" or "Hygiene". Each track of specialization encompasses four compulsory modules.

The curriculum of the <u>Master's degree programme Public Health</u> has a similar structure. It contains state compulsory modules ("History of Kazakhstan", "Foreign Language", "Pedagogics", "Psychology", "Biostatistics", "Bioethics"), compulsory professional modules ("Research and Teaching in Public Health", "Population Health and Management"), professional practice, and research work - including the Master's thesis. In addition, the students can chose to specialize in the areas "Health Policy and Management" or "Community Health". Each track of specialization encompasses four compulsory modules.

The peers ask the programme coordinators in which way the three major levels of prevention (primary, secondary, tertiary prevention) are integrated into the curriculum of the degree programmes. The programme coordinators explain that the students learn about these different levels in several modules and acquire a solid knowledge about the related methods and treatments. The peers accept this explanation, but point out that the module descriptions do not include this information; therefore they should be updated in this respect.

The peers discuss with the programme coordinators why innovative IT-applications and teaching/learning methods such as e-learning, blended learning or e-health applications are not part of the curriculum. Since the students all have internet access and are used to using mobile phones, the peers think it would be a good idea to teach them about e-health applications and how to use electronic devices in the area of public health and preventive medicine. The peers point out that the teachers and the students should be familiar with these new technologies and that the Faculty of Medicine should be prepared to introduce the students to these applications. The programme coordinators explain that they try to keep up with innovations and that there is a team of developers working for the university to include e-learning elements into the curriculum and to further educate the members of the teaching staff to use these teaching methods and applications. The peers are satisfied with this explanation.

The peers inquire about the differences between the two Master's degree programmes. The programme coordinators clarify that the reason for offering two different Master's degree programmes is a historical one. Already during the time of Soviet Union there was a difference between degree programmes in Hygiene (Preventive Medicine) and Public Health. While establishing the new Faculty of Medicine Al-Farabi KazNU tried to include both areas in one single degree programme but there were some problems with developing the national standards because there was a conflict of responsibilities between the national ministry of economics and the national ministry of health care. This conflict has been solved in the recent months and now the standards of national health care system and the related degree programmes are developed under the supervision of the ministry of health care. A work group to develop new standards has been established and the heads of the Faculty of Medicine are members of this panel. They have the goal to develop a general curriculum for a Master's degree programme in Public Health with a possible specialization in Preventive Medicine. The peers can follow this argumentation and ask the programme coordinators to inform them in time before changes in the Master's degree programmes are going to be implemented.

In the eyes of the peer group there are too many compulsory courses in subjects that have no relation to the specific subject, especially in the <u>Bachelor's degree programme</u>

<u>Preventive Medicine</u>. Courses in Kazakh history and culture should not be compulsory parts of a degree programme dedicated to science and medicine. As a result, the peers suggest reducing the amount of mandatory courses with no relation to the specific degree programme.

In summary, the peer group draws the conclusion that the curriculum of each of the degree programmes allows the students to achieve the intended learning outcomes.

Criterion 1.4 Admission requirements

Evidence:

- Academic policy of Al-Farabi Kazakh National University
- Model Rules of admission to educational organizations, realizing professional training programs of postgraduate education, approved by the Government of the Republic of Kazakhstan from January 19, 2012 № 109 (as amended on July 9, 2013)
- Model Regulations on Admission for studying in educational organizations, realizing professional training programs of higher education, approved by the Government of Republic of Kazakhstan from January 19, 2012 № 111 (as amended as of July 4, 2014)
- Self Assessment Report

Preliminary assessment and analysis of the peers:

Admission to the <u>Bachelor's degree programme</u> is based on the candidate's application in accordance with the sum of points of the certificate achieved in the Unified National Test (UNT). All high school graduates in Kazakhstan have to pass this test in order to be able to apply for studying at a national university. In addition, a high school graduate should have an interest in biology and select it as his special area of interest in the UNT.

Admission to the <u>Master's degree programmes</u> is based on the national regulations and Al-Farabi KazNU rules of admission. According to these rules, students applying for a Master's degree programme must first pass a test of foreign language (usually English) and then a subject specific test (written exam). The sum is the admission points that form the basis of the decision about the admission.

In Kazakhstan, the demand for university graduates is determined by a national order. This plan includes how many state grants can be awarded each year for specific subjects at certain national universities. The high school graduates who achieve the highest scores on the UNT receive a state grant and can choose the subject and the university where they want to study. A state grant includes free tuition and a scholarship for living expenses. If a student has good grades in his first semesters at the university, he can apply during the studies for a state grant. It is also possible to enroll on a fee-paid basis. Enrollment is carried out separately for each degree programme and study language.

In summary, the auditors find the terms of admission to be binding and transparent. They confirm that the admission requirements support the students in achieving the intended learning outcomes.

The auditors notice that the regulations concerning the recognition of credits gained at other higher education institutions do not comply with the Lisbon Convention which states that achievements and competences acquired at another higher education institution must be recognised unless *substantial differences* can be proven by the institution that is charged with recognition, in this case by Al-Farabi Kazakh National University. In the Academic Polices it is only stated: "Goals, objectives, general rules and insurance of the implementation of the academic mobility of students correspond to the basic principles of the Bologna Declaration" (§12.5).

Since Kazakhstan is member of the European Higher Education Area (EHEA) there must be rules for recognizing achievements and competences acquired at other higher education institutions. These rules must be in accordance with the Lisbon Convention. Thus, the peers expect that the rules for the recognition of achievements and competences acquired at other higher education institutions make transparent that the recognition is guaranteed unless substantial differences can be proven by the higher education institution (change of burden of proof). The Academic Policies should be updated accordingly.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 1:

The peers take notice that Al-Farabi Kazakh National University has submitted a comprehensive description of the <u>Bachelor's degree programme Preventive Medicine</u> that includes the qualification profile and the programme objectives. The peers accept the subsequent delivery of the document and abstain from issuing a requirement in this respect.

The programme coordinators point out, that the <u>Bachelor's degree programme Preven-</u> <u>tive Medicine</u> also includes 36 ECTS credits for internships, so the whole degree programme encompasses 310 ECTS credits.

The peers take into consideration that the content of the compulsory modules is defined by the Ministry of Education and Science of the Republic of Kazakhstan and that Al-Farabi Kazakh National University must follow the State Standard of Higher Education in medical and health related specialties. The peers understand that the possibilities to change the curricula of the degree programmes are restricted because of the national regulations. But within certain limits Al-Farabi Kazakh National University can adjust the study plans and has done so in the past. For this reason the peers recommend that Al-Farabi Kazakh National University should try to reduce the number of credits allocated to mandatory courses with no relation to the specific degree programme.

Al-Farabi Kazakh National University has updated its Academic Policy and in §23.9 it is now stated: "The goals, objectives and general rules of realization of academic mobility of students correspond to the basic principles of the Bologna Declaration and the recognition of qualifications gained at another high educational institution fully complies with the principles of the Lisbon Convention." The peers appreciate the changes and can now confirm that rules for the recognition of achievements and competences acquired at other higher education institutions are now based on the Lisbon Recognition Convention. As a result they issue no requirement in this respect.

Taking the statement of Al-Farabi Kazakh National University into account the peers assess criterion 1 to be mostly fulfilled.

2. The Degree Programmes: Structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self Assessment Report
- Objectives-Modules-Matrix
- Module descriptions
- ECTS users' guide of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

The auditors confirm that all degree programmes consist of modules that have been adapted to the requirements of the respective degree programme. Each module is a package of connected learning units. From the auditors point of view the structure of the modules ensures that the qualification level and the intended learning outcomes can be achieved and that the students can complete the degree programmes successfully without any delay. The peers see that the students can set an individual focus during the course of their studies and that the support by the advisors is very helpful for the students when they have to decide which electives to choose.

The auditors can verify that all intervals of practical work are well integrated into the curriculum and that Al-Farabi KazNU vouches for their quality in terms of relevance, content and structure. The students write a report about their practical work and this report is reviewed by a member of the teaching staff. This scientific advisor also visits the organization where the internship is done and checks the equipment and talks with the people responsible there. The contacts made during the internships can also be used to write the final thesis at the same institution.

The peer group concludes that the modules have been adapted to the requirements of the degree programmes and they confirm that the module objectives help to reach the qualification level and the overall intended learning outcomes.

During the audit the peers learn that Al-Farabi KazNU also offers a one year <u>Master's degree programme Public Health</u>. Unfortunately, there was no mention of this degree programme in the Self Assessment Report and a study plan was only submitted in the course of the audit. Since the auditors do not have any substantial information about the concept, contents and goals of this degree programme they cannot include it in the accreditation procedure. Instead, they suggest to the programme coordinators to apply separately for its accreditation.

The teaching staff and the students confirm the impression of the peer group that the academic mobility of the students is rather low. Although, there are international cooperations e.g. with the Czech Republic and South Korea only a few students take this opportunity and study abroad. Especially in the <u>Bachelor's degree programme Preventive Medicine</u> the academic mobility is very low, because Al-Farabi KazNU offers too few scholarships for studying abroad and they are not endowed well enough for covering the living expenses in a foreign country. During the meeting with the peers the Bachelor students express their interest in spending some time abroad but also confirm that most of them do not have the necessary financial resources to afford such a stay.

The situation is a little different in the two <u>Master's degree programmes</u>. Most of the students receive a grant for spending two weeks at a foreign university in order to do an internship there and to get involved in research projects. All of the students must complete this two week internship and it is really appreciated by the students that such an opportunity exists.

Al-Farabi KazNU wants to increase the international mobility of its students, but since financing the studies abroad is a big problem for the students there should be better endowed and more scholarships available. In addition, the peers could not find a list of the international cooperations of the Faculty of Medicine in the Self Assessment Report. For this reason, they ask the programme coordinators to provide such a list. They also suggest establishing cooperations with universities where there are no tuition fees and where the costs of living are similar to those in Kazakhstan. Suitable partner universities could possibly be found for example in the Baltic's, Poland or Slovakia. In addition, the Faculty of Medicine should provide more innovative and affordable technologies for online learning and network communication. It would also be useful to strengthen the contacts with public health institutions in Europe by using their membership in the Association of Schools of Public Health in the European Region (ASPHER).

The peers appreciate that members of the teaching staff are currently improving their language skills and take English classes. Since Al-Farabi KazNU wants to increase the academic mobility of its students and staff members the peers recommend putting even more emphasis on improving the English language skills of the teaching staff, to increase the amount of language courses, and to encourage the members of the teaching staff to spend some time at foreign (English speaking) universities. In addition, they suggest using more English textbooks and introducing English elements into the curriculum of the <u>Master's degree programmes</u>. The teaching staff agrees during the discussion with the peers that more English elements should be introduced into the curriculum and that more modern international literature should be used.

Criterion 2.2 Work load and credits

Evidence:

- Self Assessment Report
- Module descriptions
- ECTS users' guide of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

The <u>Bachelor's degree programme Preventive Medicine</u> is designed for 274 ECTS credit point (135 Kazakh Credits); this includes the internships, physical education and the final exams. The <u>Master's degree programme Preventive Medicine</u> and the <u>Master's degree programme Preventive Medicine</u> and the <u>Master's degree programme Public Health</u> each comprises 120 ECTS credit point (65 Kazakh Credits), including the final exams and the Master's thesis. According to the Self Assessment Report, and the module descriptions 1 ECTS credit point is equivalent to 30 hours of academic work.

The auditors consider the total work load of the degree programmes to be adequate; although they recommend making obvious in the module description how the total workload is distributed between attendance based hours and self study hours. (The module description are discussed in more detail in Crit. 5.1)

In summary, the auditors conclude that there is no structural pressure on the quality of teaching and the level of education due to the work load. The students express their general satisfaction with the amount and the distribution of their work load. The estimated time budget is realistic, and the students can complete the degree programme without exceeding the regular time frame.

Criterion 2.3 Teaching methodology

Evidence:

- Self Assessment Report
- Module descriptions

Preliminary assessment and analysis of the peers:

According to the Self Assessment Report several teaching methods and instruments are used that vary between the Bachelor's and Master's degree programmes. At Bachelor level, the students first gain theoretical knowledge and have more practical classes in their further studies. At Master level, students conduct more individual scientific research. In general, the following teaching methods are used in the degree programmes: lectures; seminars, laboratory classes, internships, small group activities, and final thesis.

During the classes active and interactive teaching methods (e.g. lectures, discussions, reports, presentations, and group work) are applied. Al-Farabi KazNU wants to encourage the students to gain knowledge from different scientific areas and wants them to be able to solve specific problems through an interdisciplinary approach. This should ultimately

contribute to the transition from a teacher centered to a student oriented teaching method. In order to involve all students in the learning process and to develop their thinking and analytical skills, the teaching staff uses several methods of training and gives assignments on different levels of complexity.

In summary, the peer group judges the teaching methods and instruments to be suitable to support the students in achieving the learning outcomes.

Criterion 2.4 Support and assistance

Evidence:

- Self Assessment Report
- Academic policy of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

Al-Farabi KazNU provides an extensive support system for all students; it includes consultations with advisors about the individual educational plan and the study progress. Furthermore, the advisor conducts educational work with the assigned students to improve their academic performance and to attract them to participate in social life at the university.

In addition, the students can contact their advisor any time for assistance in academic questions. The members of the teaching staff are available on any issues regarding the degree programmes and offer advice on particular modules, as well as on required papers or reports.

The peers learn that every student upon entering Al-Farabi KazNU receives a student handbook which contains information about the organization of the chosen degree programme, on the preparation of an individual study plan, about the monitoring and evaluation of the learning achievements, and the organization of different kinds of internships.

The peer group notes approvingly the good and trustful relationship between the students and the teaching staff; there are enough resources available to provide individual assistance, advice and support for all students. The support system helps the students to achieve the intended learning outcomes and to complete their studies successfully and without delay. Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 2:

The peers accept the submitted list of international co-operations and encourage the programme coordinators to use these contact to increase the academic mobility of the students.

The peers are pleased to learn that three staff members have degrees from western universities and that several other members of the teaching staff are attending English language courses. They recommend continuing on this path.

The module descriptions have been updated and now include information about the distribution of the workload between classes and self studies. The peers accept the changes and see no need to issue a requirement concerning the module descriptions anymore.

The peers assess criterion 2 to be mostly fulfilled.

3. Exams: System, concept and organisation

Criterion 3 Exams: System, concept and organisation

Evidence:

- Self Assessment Report
- Module descriptions
- Academic policy of Al-Farabi Kazakh National University
- Standard rules for current progress control, midterm and final attestation of students in higher educational institutions

Preliminary assessment and analysis of the peers:

According to the Self Assessment Report there is a period for midterm exams and a period for the final exams. The form of the exams for each module is specified in the module descriptions. Periods of winter and summer examinations are scheduled in the academic calendar. During the examination period students take exams according to the approved schedule. There is a comprehensive exam in each module, it is conducted by the teachers of all disciplines of the module and there is a joint examination score, which is set in the official transcript and on the online platform "Univer". To make up for a failed examination a student must retake the module in the next academic term or in the summer semester. The summer semester is designed for students who have credit deficits and have failed some exams. There is fee for each taken credit point.

There is also an ongoing monitoring of the student's progress in his studies; it is evaluated by the teaching staff on the basis of attendance and preparedness for the classes.

Midterm examinations are obligatory and carried out in accordance with the academic calendar. Form and content of midterm examinations are determined by the teacher of each module. The sum of all points, for the midterm exams and the ongoing monitoring, are entered into the electronic journal by the teacher. If a student has not enough points he is not allowed to take the final exam.

During the examination period the students must take all exams according to the schedule in strict accordance with the individual study plan. In some cases (due to illness, family emergency and other similar reasons) the Dean of the Faculty can make exceptions from this strict examination plan. The final grade is composed of the admission points and the grade of the final exam. The students can see their results on online platform "Univer".

Students who fail too many credits may lose their state grant and they have to repeat the academic term. Only very few students leave the university without a degree. The academic advisors and the teaching staff try to help the students to make up time lost by e.g. illness during the semester so that every student has a chance to pass the final exam.

The final exams are conducted in various forms. Oral exams are applied in a number of modules, tests are PC based; and most final exams are written exams. A detailed examination plan is handed out to the students at the start of each semester. The auditors point out that there are a lot of written exams and that it would be necessary to better align the range of possible forms of examination with the intended learning outcomes of the respective module. Therefore, they recommend reducing the number of written exams in favor of more oral exams.

The auditors inquire about the Bachelor's and Master's theses and would like to know, whether these are done at the university or externally at companies or research institutions; they also ask about the involved quality management. They learn that most of the students, especially in the Master's degree programmes, do their final thesis at external research institutions. The quality of external research activities is checked by the academic advisor, one supervisor of the final thesis must be a member of the teaching staff.

In the course of the onsite visit, the auditors also check sample exams, and Bachelor's and Master's theses of all degree programmes. Unfortunately, the submitted exams were not translated in English so that the peers cannot decide if their academic quality is sufficient or not. Before making a final assessment on this topic the peers ask the programme coor-

dinators to provide translated sample exams for all three degree programmes. In addition, they would like to see a final thesis from one of the students of the English speaking group.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 3:

The peers understand that written exams are recommended as a final assessment by Al-Farabi KazNU and the Ministry and that midterm assessments are mostly oral exams. They still recommend reducing the number of written exams in favour of other forms of final assessment because this would allow better assessing the achievement of the intended learning outcomes, especially in the Master degree programmes.

Unfortunately Al-Farabi KazNU has not provided sample exams or a final thesis in English but only a list of exam results and sample exam questions. Since the English speaking students will submit their theses in June/July 2017 the peers expect that Al-Farabi KazNU submits these documents in the course of the fulfilment of requirements. In addition they ask Al-Farabi KazNU to provide translated sample exams for all three degree programmes.

The peers assess criterion 3 to be mostly fulfilled.

4. Resources

Criterion 4.1 Staff

Evidence:

- Self Assessment Report
- Staff handbook
- Academic policy of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

The auditors discuss with the programme coordinators the composition and qualification of the teaching staff. They learn that each member of the teaching staff is approved by the Rector of Al-Farabi KazNU. The number of staff members is determined by the number of degree programmes, the amount of teaching workload, and the number of admitted students. The peers inquire whether there are enough staff members if the number of students rises next year when the fourth year of students in the <u>Bachelor's degree programme</u> <u>Preventive Medicine</u> enters the Faculty of Medicine. The programme coordinators agree that they will need extra staff members next year but that the rectorate of Al-Farabi KazNU is well informed about this need and that the financial budget of the Faculty of Medicine will rise accordingly and that new teachers will be hired. As a result there will be no bottlenecks.

The auditors notice that the composition and qualification of the teaching staff is suitable to sustain the <u>Master's and Bachelor's degree programmes</u>. They also confirm that enough resources are available for administrative tasks and the supervision and guidance of the students.

The auditors are impressed by the excellent and open atmosphere among the students and the staff members. They especially appreciate that the teaching staff is open minded and always focused on improving the quality of the degree programmes.

Finally, the auditors find out that almost all of the members of the teaching staff are involved in research activities. If teachers are scientifically successful their teaching workload can be reduced in favor of more time for research activities. The auditors conclude that the research activities carried out by the teaching staff are in line with and support the level of academic qualification aimed at.

Criterion 4.2 Staff development

Evidence:

- Self Assessment Report
- Staff handbook
- Academic policy of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

The peers discuss with the members of the teaching staff the opportunities to spend time abroad and to participate in international projects. They learn that there is cooperation with South Korea, and that there is a special fund for financing the participation at international conferences. In addition, the members of the teaching staff can visit international partners that are involved in their research activities.

The members of the teaching staff mention that there is an internal qualification programme at Al-Farabi KazNU in place that offers courses to improve the professional and didactic skills of the teachers. During the onsite visit the members of the teaching staff express their general satisfaction with their opportunities to further improve their teaching skills.

In summary, the auditors confirm that Al-Farabi KazNU offers sufficient support mechanisms and opportunities for members of the teaching staff who wish to further develop their professional and teaching skills.

Criterion 4.3 Funds and equipment

Evidence:

- Self Assessment Report
- Onsite visit of the laboratories

Preliminary assessment and analysis of the peers:

During the audit the peer group also visits the laboratories in order to assess the quality of the infrastructure and the technical equipment. With regard to the laboratories for histology and physiology the peers notice several weak points, e.g. several technical devices are quite old and outdated. Moreover the peers cannot determine if the laboratories are just used for teaching the students or are also used by the teaching staff for their research activities. From their point of view the infrastructure is sufficient for teaching the students, but in order to conduct research activities more modern equipment would be needed. In this case, for example new microscopes should be purchased and the embedding, sectioning and staining equipment should be updated. In addition, more modern, molecular or analytical localisation methods such as immunohistochemistry or in-situ hybridisation should be introduced. This would require a cryostat and more refined staining methods. Furthermore, observations at the fine structural level cannot be carried out with the current equipment. For this purpose, embedding in resins (Epon) and different kinds of microtomes would be needed.

While visiting the laboratories the peers find several possible sources for contamination (e.g. plants) and see that internationally accepted quality standards (e.g. ISO) for laboratories are not adopted. Since there are several serious deficits with respect to work safety, hygienic conditions and quality assurance the peers recommend implementing international quality and safety standards and cooperating with local laboratory assessors (e.g. the Kazakhstan National Centre of Accreditation).

The students confirm in the discussion with the peers that the facilities are sufficient for teaching purposes, although they have to use the laboratories of different departments

(especially in the Departments of Chemistry and Biology). Since the Faculty of Medicine is very new they do not have their own laboratories yet. The programme coordinators explain that the Faculty of Medicine is planning to establish their own laboratories in the near future. The peers accept this explanation and emphasize that from their point of view it is essential for a Faculty of Medicine to establish laboratories that are specifically designed for the needs of their students.

The peers are impressed by the modern campus facilities especially by the new Students Service Center "Keremet" with educational, welfare, health, shopping and entertainment services for students, a private cinema, and by the very well equipped library. The central library offers modern IT-services as webinars and e-learning seminars which also could be used to improve the English language skills of the students. Direct access to international ISO-standards and relevant scientific magazines (print version) should be provided by the library and promoted by the teachers to all students.

The students express their general satisfaction with the available resources and conditions of studying, thereby confirming the positive impression of the peer group.

The auditors conclude that there are sufficient funds and equipment and that the infrastructure (laboratories, library, seminar rooms etc) complies with the requirements for sustaining the degree programmes.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 4:

The peers appreciate that the Faculty of Medicine has submitted a proposal to the administration of Al-Farabi KazNU to update the technical equipment and to buy new equipment for research purposes. In addition the Faculty of Medicine is working on establishing several new laboratories and wants to enhance the safety standards. The peers recommend pursuing this plan with the goal to establish new laboratories at the Faculty of Medicine and to upgrade the laboratories according to ISO quality standards as soon as possible.

The peers assess criterion 4 to be mostly fulfilled.

5. Transparency and documentation

Criterion 5.1 Module descriptions

Evidence:

- Self Assessment Report
- Module descriptions

Preliminary assessment and analysis of the peers:

The auditors confirm that the module descriptions are accessible to all students and teachers via the online platform "Univer". In general, the peers are satisfied with the quality of the module descriptions and the included information, but they also identify a few weak points.

As described under Crit. 1.3, the peers ask to update the module description in order to make obvious in which module the three major levels of prevention (primary, secondary, tertiary prevention) are discussed.

The peers notice that the module descriptions for the Individual Education Trajectories (IET) for the <u>Bachelor's degree programme Preventive Medicine</u> do not correspond with the modules listed in the Self Assessment Report. Moreover, even the names of the two IETs are different. The Self Assessment Report mentions "IET 1: Bases of diagnostics, therapy, prevention used in traditional medicine and professional" and "IET 2: Modern approaches to diagnostic-therapeutic and scientific process" whereas the module handbook states "IET 1: Hygiene in Preventive Medicine" and "IET 2: Epidemiology in Preventive Medicine". The peers conclude that there are several inconsistencies between the module handbook and the Self Assessment Report; they expect that the study plan and the module handbook must be updated and inconsistencies must be corrected.

In addition, the peers gain the impression that while translating the module descriptions from the Russian/Kazakh original into English too many parts were transferred via "copy and paste" and that the module descriptions are too unspecific and do not accord with the actual content and that the mentioned workload is not adapted to the specific module. In almost all module descriptions the distribution of the workload on classroom activities and self studies is identical. As this cannot be correct easily the peers ask the programme coordinators to rewrite the module descriptions and to calculate the workload independently for every module. The peers know that the English translations are produced just for the international accreditation procedure. Since the students are quite satisfied with the original module descriptions, the peers only recommend putting more effort into an adequate English translation. Finally, the peers point out that the description of the module "Introduction to Latin" does not include any literature in references and that in general more modern and international literature should be used.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Self Assessment Report
- Sample Diploma Supplements

Preliminary assessment and analysis of the peers:

The peer group notices that the Self Assessment Report only included a sample Diploma Supplement for the two <u>Master's degree programmes</u> but a sample Diploma Supplement for the <u>Bachelor's degree programme Preventive Medicine</u> was missing. They emphasize that all graduates must be provided with a Diploma Supplement, and expect that a sample is provided for the <u>Bachelor's degree programme Preventive Medicine</u>.

In addition, the peers explain that the Diploma Supplement should also include statistical data regarding the final grade and information about its composition according to the ECTS user's guide. This allows the reader to classify the individual result. Such a classification is missing in the submitted Diploma Supplements and as the consequence the peers ask Al-Farabi KazNU to change that and to include this information in the Diploma Supplements.

Criterion 5.3 Relevant rules

Evidence:

- Self Assessment Report.
- Academic policy of Al-Farabi Kazakh National University
- Standard rules for current progress control, midterm and final attestation of students in higher educational institutions
- Homepage of the university: http://www.kaznu.kz/en/

Preliminary assessment and analysis of the peers:

The auditors confirm that the rights and duties of both Al-Farabi KazNU and the students are clearly defined and binding. All relevant course-related information is available in the language of the degree programme and accessible for the students and the teaching staff via the "Univer" system. They point out that they could not find the necessary information about the degree programmes on the university's homepage. They ask the programme coordinators to change that and provide access to all relevant documents for all

stakeholders. This could for example be achieved by publishing them on the university's homepage.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 5:

The peers appreciate that information about the modules, the teaching staff and the learning objectives for all three degree programmes are now presented on the homepage of Al-Farabi Kazakh National University. For this reason they do not issue a requirement in this respect.

A sample Diploma Supplement for the <u>Bachelor's degree programme Preventive Medicine</u> was submitted but the peers notice that it does not include statistical data about the final degree so that it is not possible to rank the individual performance of the student. Therefore, they ask Al-Farabi Kazakh National University to submit an appendix to the Diploma Supplement that includes statistical data about the final degree according to the ECTS-Users' guide.

The module descriptions have been updated according to the comments in the report and discrepancies between the module description and the degree plan have been solved. For this reason the peers abstain from issuing a requirement with respect to the module descriptions.

The peers assess criterion 5 to be mostly fulfilled.

6. Quality management: Quality assessment and development

Criterion 6 Quality management: quality assessment and development

Evidence:

- Self Assessment Report.
- Academic policy of Al-Farabi Kazakh National University

Preliminary assessment and analysis of the peers:

The auditors ask the Department heads about the quality management system at Al-Farabi KazNU. They learn that there is an extensive and complex quality management system in place that includes surveys by the students, graduates and the teaching staff. Students have the chance to give a feedback on the study conditions, the study process organisation, and the content of the degree programmes. These surveys are organized once a year by Al-Farabi's Centre for Sociological Research and Social Engineering. The Evaluations are accessible via the online platform "Univer". There is also a survey undertaken by the teaching staff. The questionnaire consists of several questions aimed at reviewing different aspects of teachers' activities in the fields of education, research and social life. Finally, employers usually give a feedback to the University about the quality and employability of the graduates.

A commission in the faculty analyzes the surveys and if the results are negative they speak with the responsible teacher and try to solve the problems. Members of the commission visit the classes and listen to the lecture, if the negative evaluation continues the teacher may have to leave the university.

During the discussions with the students the peers learn that the students take part at the surveys but they do not get informed about the results and the consequences. Therefore, the peers demand that there should be some kind of feedback to the students in order to close the feedback loops.

The peers discuss with the representatives of the employers if they were involved in the development of the degree programmes and if they can give a feedback on the employability of the graduates and their qualifications. The peers learn that experts from several research institutions concerned with public health were invited to take part in the development of the degree programmes and they offered their professional advice on the curriculum and on the qualification profile so that the graduates will be able to work as public health specialists. In addition, the representatives point out that there is an annual meeting between the programme coordinators and the employers where they talk about the curriculum and possible changes and the perspectives of the graduates on the labour market. The demand for graduates with a specialization in public health or preventive medicine is high and there are enough jobs available for graduates of the <u>Bachelor's degree programme</u> as well as for graduates of the <u>Master's degree programmes</u>. They emphasize that more public health specialists are needed and that they are satisfied with the graduates and their competence profile.

In summary, the peer group confirms that the quality management system is suitable to identify weaknesses and to improve the degree programmes. The students and all other stakeholders are involved in the process but not all feedback loops are closed.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 6:

The peers appreciate that Al-Farabi KazNU has developed regulations for the organisation of surveys. In §5 it is stated that the results of the teaching evaluations are brought to the attention of the students. The peers see that the feedback loops are closed if the students get a feedback and they expect that the regulation is put into effect and that the process is monitored carefully. Since the peers believe that their criticism is taken seriously and that Al-Farabi KazNU has taken steps to close the feedback loops they see no further need to issue a requirement in this respect.

The peers assess criterion 6 to be fulfilled.

D Additional Documents

Before preparing their final assessment, the panel asks that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

- List of international cooperations and partners of the Faculty of Medicine
- Comprehensive description of the Bachelor programme Preventive Medicine
- Diploma Supplement for the Bachelor programme Preventive Medicine
- Sample exams for all three degree programmes translated in English, sample exams and papers of the "English speaking group"

E Comment of the Higher Education Institution (15.02.2017)

The institution provided a detailed statement as well as the following additional documents:

- Comprehensive description of the Bachelor programme Preventive Medicine
- Updated module handbooks
- List of the international co-operations
- Updated Academic Policy
- English language certificates
- Sample of examination questions
- Sample Diploma Supplements
- Regulation on the organization of survey
- Project proposal
- ECTS-calculation guide
- Guide for safety standards
- Laboratory certificates

F Summary: Peer recommendations (07.03.2017)

Taking into account the additional information and the comments given by Al-Farabi Kazakh National University the peers summarize their analysis and final assessment for the award of the seals as follows:

Degree Programme	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Preventive Medicine	With requirements for one year		30.09.2022
Ma Preventive Medicine	With requirements for one year		30.09.2022
Ma Public Health	With requirements for one year		30.09.2022

Requirements

For all degree programmes

- A 1. (ASIIN 5.2) Make sure that the Diploma Supplement contains statistical data about the final degree according to ECTS-Users' guide.
- A 2. (ASIIN 3) Submit translated sample exams and a final thesis from one of the students of the English speaking group.

Recommendations

For all degree programmes

- E 1. (ASIIN 2.1) It is recommended to establish academic cooperations with suitable foreign universities so that the students have better opportunities to spend some time abroad.
- E 2. (ASIIN 2.1, 4.2) It is recommended improving the English language skills of the staff members and the students.
- E 3. (ASIIN 4.3) It is recommended to update the technical equipment and to adopt ISO quality standards in the laboratories.
- E 4. (ASIIN 4.3) It is recommended to establish own laboratories in the Faculty of Medicine.

- E 5. (ASIIN 3) It is recommended to better align the range of possible forms of examination with the intended learning outcomes of the respective module.
- E 6. (ASIIN 1.3) It is recommended to reduce the amount of mandatory courses with no relation to the specific degree programme.

G Comment of the Technical Committee 10- Life Sciences (16.03.2017)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee sees that the department is newly established at Al-Farabi and is still under construction. The department's in-house laboratories are being built the quality of the technical equipment needs to be checked during the reaccreditation process. The staff is adequately qualified, final theses and scientific activities can be carried out in external research institutes and clinics as well as in the new Students Service Center "Keremet". The university has, together with its statement on the report, already submitted extensive material and removed several flaws so that no further requirements have to be imposed. The Technical Committee proposes to formulate the requirement A2 in a more concrete manner in order to make it clear that the requested examinations and final theses must demonstrate that the desired quality level is achieved in the degree programmes. Otherwise, the Technical Committee agrees with the assessments of the peers.

The Technical Committee 10 – Life Sciences recommends the award of the seals as follows:

Degree Programme	ASIIN seal	Subject-specific La- bel	Maximum duration of accreditation
Ba Preventive Medi- cine	With requirements for one year		30.09.2022
Ma Preventive Medi- cine	With requirements for one year		30.09.2022
Ma Public Health	With requirements for one year		30.09.2022

Requirements

For all degree programmes

A 1. (ASIIN 5.2) Make sure that the Diploma Supplement contains statistical data about the final degree according to ECTS-Users' guide.

A 2. (ASIIN 3) Submit translated sample exams and a final thesis from one of the students of the English speaking group in order to prove that the qualification level aimed at is achieved.

Recommendations

For all degree programmes

- E 1. (ASIIN 2.1) It is recommended to establish academic co-operations with suitable foreign universities so that the students have better opportunities to spend some time abroad.
- E 2. (ASIIN 2.1, 4.2) It is recommended improving the English language skills of the staff members and the students.
- E 3. (ASIIN 4.3) It is recommended to update the technical equipment and to adopt ISO quality standards in the laboratories.
- E 4. (ASIIN 4.3) It is recommended to establish own laboratories in the Faculty of Medicine.
- E 5. (ASIIN 3) It is recommended to better align the range of possible forms of examination with the intended learning outcomes of the respective module.
- E 6. (ASIIN 1.3) It is recommended to reduce the amount of mandatory courses with no relation to the specific degree programme.

H Decision of the Accreditation Commission (31.03.2017)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The Accreditation Commission for Degree Programmes discusses the procedure and decides to follow the suggestion of the Technical Committee 10 – Life Sciences with respect to requirement A2. In addition, they change the wording in order to make clear that more than just one thesis is required.

The Accreditation Commission for Degree Programmes decides to award the following seals:

Degree Programme	ASIIN seal	Subject-specific La- bel	Maximum duration of accreditation
Ba Preventive Medi- cine	With requirements for one year		30.09.2022
Ma Preventive Medi- cine	With requirements for one year		30.09.2022
Ma Public Health	With requirements for one year		30.09.2022

Requirements

For all degree programmes

- A 1. (ASIIN 5.2) Make sure that the Diploma Supplement contains statistical data about the final degree according to ECTS-Users' guide.
- A 2. (ASIIN 3) Submit translated sample exams and final theses from the English speaking group in order to prove that the qualification level aimed at is achieved.

Recommendations

For all degree programmes

E 1. (ASIIN 2.1) It is recommended to establish academic co-operations with suitable foreign universities so that the students have better opportunities to spend some time abroad.

- E 2. (ASIIN 2.1, 4.2) It is recommended improving the English language skills of the staff members and the students.
- E 3. (ASIIN 4.3) It is recommended to update the technical equipment and to adopt ISO quality standards in the laboratories.
- E 4. (ASIIN 4.3) It is recommended to establish own laboratories in the Faculty of Medicine.
- E 5. (ASIIN 3) It is recommended to better align the range of possible forms of examination with the intended learning outcomes of the respective module.
- E 6. (ASIIN 1.3) It is recommended to reduce the amount of mandatory courses with no relation to the specific degree programme.
I Fulfilment of Requirements (23.03.2018)

Analysis of the peers and the Technical Committee (16.03.2018)

Requirements

For all degree programmes

A 1. (ASIIN 5.2) Make sure that the Diploma Supplement contains statistical data about the final degree according to ECTS-Users' guide.

Initial Treatment	
Peers	fulfilled
	Vote: unanimous
	Justification: The Diploma Supplement has been updated and
	now includes information about the distribution of the final
	grade.
TC 10	fulfilled
	Vote: unanimous
	Justification: The TC follows the auditors' assessment.

A 2. (ASIIN 3) Submit translated sample exams and a final thesis from one of the students of the English speaking group in order to prove that the qualification level aimed at is achieved.

Initial Treatment							
Peers	partly fulfilled						
	Vote: unanimous						
Justification: The exam questions and actual exam sheets are							
	satisfactory. No final theses were provided because there are not						
yet any graduates in the degree programmes.							
TC 10	fulfilled						
	Vote: unanimous						
	Justification: The TC follows the auditors' assessment.						

Decision of the Accreditation Commission (23.03.2018)

Degree programme	ASIIN-label	Subject- specific label	Accreditation until max.		
Ba Preventive Medi- cine	All requirements fulfilled		30.09.2022		
Ma Preventive Medi- cine	All requirements fulfilled		30.09.2022		
Ma Public Health	All requirements fulfilled		30.09.2022		

According to the self-assessment report, the following **objectives** and **learning outcomes** (intended qualifications profile) shall be achieved by the <u>Bachelor's degree programme</u> <u>Preventive Medicine</u>:

Intended Learning Outcomes ⁴ of the Degree Programme	Corresponding Modules
As a result of studying, the student will be able to see	Natural Sciences (STEM)
the history of medicine, the method and the principles of	Module 1: History of Medicine and
its study, the main historical periods; principles, manifesta-	Information Communication Technol-
tions characteristic chemical properties of substances,	ogies
which are based on appropriate methods of analysis; the	History of Medicine
basic laws of physics and chemistry, physical and chemical	Information communication
phenomena and laws used in physical and colloid chemis-	technologies
try; the ability to develop software and individual pro-	Module 2: Chemistry and Physical and
grams.	Colloid Chemistry
As a result of studying, student will be able to analyze	Organic Chemistry
and apply this knowledge to further their research and ed- ucational activities.	Physical and Colloid Chemistry
As a result of studying, student will be able to apply the	
basic natural scientific laws and the laws of development of	
medical science in the analysis of the results.	
A study of the students will be able to develop simple	
mathematical models of physical and chemical processes.	
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Student will be able, to know and understand scientific	Basis of Medicine and Biology
concepts of the theoretical foundations of epidemiology	
and hygiene in the preparation of specialists with theoreti-	Module 3: Introduction to Specialty
cal knowledge and practical skills to identify the causes and	and Latin language
conditions of occurrence and spread of infectious and non-	 Introduction to the speciality
communicable diseases among the population; the subject	•Latin Language
of the Latin language, categories of nouns, verbs, adjec-	Module 4: Medical Biology and Histol-
tives, and their declination (nouns and adjectives) and con- jugation; the molecular basis of cell structure, the genetic	ogy •Medical Biology
role of nucleic acids, reproduction and human evolution,	•Histology
ecology problems of the environment; the overall plan of	Module 5: Human Structure and Func-
the human body structure, topography, macromorphology,	tioning
micromorphology and functions of all its internal organs;	•Anatomy
the study of the physiological mechanisms of life, the inter-	 Physiology
action of regulatory systems; ideas about the structure and	Module 6: Medical Chemistry and

function of the immune system at the organ, cellular and molecular levels, as well as the role of the immune system in the life of a healthy body; the origin of the tissue in the individual and historical development; on morphological and functional classification of tissues. As a result of studying, student will be able to formulate the problem, select the method of solving the problem, solve it and to interpret the results. As a result of studying, the student will have the skills of self-analysis of studies of chemical problems, to develop the pursuit of scientific research ways to improve their work A study of the bachelor module will demonstrate the ability and the ability to apply their knowledge of mathe- matics to solve applied problems in their specialty, and on their basis to develop general recommendations.	Biophysics and Immunology •Biological Chemistry •Medical Biophysics Module 7: Microbiology and Immu- nology •Microbiology, virusology Module 8: Basics of Psychology and Healthy Lifestyle •Basics of General Psychology •Basics of Healthy Lifestyle
As a result of studying the student will know about the world of microorganisms and their role in nature and human life; on the basic properties of microorganisms and viruses, prokaryotic structural organization of cells; on the principles of their classification; Theoretical and methodological bases of pathophysiology; mechanisms and patterns of development of pathological processes; correctly analyze and interpret Gone macro- and microscopic changes in cells, tissues, organs in various diseases; pharmacokinetics and pharmacodynamics of drugs; the basic principles of clinical evaluation of the patient's status, medical ethics, the causes of iatrogenic diseases, basics of laboratory and instrumental studies; history and development of the principles of clinical trials.	 Basics of Medicine Module 9: Pathological anatomy and physiology Pathological anatomy Pathological physiology Module 10: Pharmacology, Clinical medicine and EBM Pharmacology Introduction into clinical medicine Basics of evidence-based medicine
As a result of studying the student will know a holistic view of research methods, the main symptoms and syn- dromes in internal, surgical and pediatric, infectious diseas- es, mechanisms of the main symptoms and syndromes of complex therapeutic and preventive measures in the pre- hospital and in the treatment; the clinic of occupational diseases, its relationship with other clinical, hygienic and theoretic problems in physics, use physical methods to solve professional problems.	Clinical medicine Module 11: Internal and childhood diseases •Internal Medicine •Childhood Diseases Module 12: Surgical and Occupational Diseases •Surgical Diseases •Occupational Diseases

As a result of studying student will be able to use the basic concepts, theories and laws of chemistry to explain the chemical properties of simple substances and compounds, as well as the laws of chemical reactions with their participation. Conducting laboratory procedures and use of equipment in the synthesis and analysis of substances. The ability to make observations, measurements, monitoring chemical properties and phenomena. As a result of studying the student will know the basics of hygiene knowledge in the field of human interaction body and the environment, to identify cause-and-effect relationship between exposure to it natural and anthropogenic factors; basics of preventive and current sanitary oversight of objects communal hygiene; requirements of occupation-al health in the industry; evaluate the sources of harmful factors of environment and production process; to-date knowledge about the basic theoretical and practical principles of organization of a balanced diet of healthy and sick person; physical foundations of radiometry, dosimeter and radiation safety; organize and assess the physical development of children and adolescents. As a result of studying student will be able to perform final calculations based on statistical processing of the analysis. As a result of studying student will carry out the basic steps in conducting a chemical experiment; make the analysis of substances. As a result of studying student will be skilled in presentation of the results in the form of summary reports and presentations.	Module 13: Infectious Diseases •Infectious Diseases •Infectious Diseases Hygiene Module 14: General Hygiene and Ra- diation Hygiene •General Hygiene •Radiation Hygiene Module 15: Communal Hygiene and Hygiene of children and teenagers •Communal Hygiene •Hygiene of children and teenagers Module 15: Hygiene of Nutrition •Hygiene of nutrition Module 17: Occupational Health •Hygiene of labor •Industrial Sanitation and Occupa- tional Health
As a result of studying the student will know the theoretical knowledge and practical skills to identify the causes and conditions of occurrence and spread of infectious diseases among the population, study the organization and carrying out of preventive and anti-epidemic measures; ideas about immunization of infectious diseases; study methods and ways of disinfection, sterilization, disinfection and disinfes- tation; the value of the standard case definitions in the sur- veillance system for communicable diseases. As a result of studying student will be able to choose a reasonable methodology for synthesis, separation, purifica-	Epidemiology Module 18: Principles of Epidemiology and Field Epidemiology •General Epidemiology •Epidemiology with basics disinfectol- ogy Module 19: Immunoprophylaxis and disinfectolgy •Immunoprophylaxis of Infectious Diseases and Basics of Disinfection •Disinfectology

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tion and identification of individual organic compounds As a result of the study, student will be able to interpret the compounds belonging to a class, call it by the formula; suggest the most characteristic chemical properties, reac- tion mechanisms, to solve complex problems. As a result of the studying student will be skilled in presentation of the results in the form of summary reports and presentations.	
As a result of studying student will know the location of biometrics and the limits of its use in biological research system; Formation of knowledge and skills on the health problems of the population and public health, theories and concepts of health, environment and ways to be healthy; on the human environment in almost all its forms and methods to varying degrees, have a negative impact on health.	 Public Health Module 20: Public Health and Environmental Health Public Health and Health Care Population, health, and the environment Module 21: Biomedstatistics Biomedstatistics
As a result of studying student will be able to hold bio- metric research and use them in the field of public health. Apply the knowledge and skills in dealing with the health problems of the population and the development of public health, as well as the conditions and way of healthy life. As a result of the studying, student will hold a wide range of knowledge on scientific writing and participate in scien- tific discussions; on descriptive epidemiology, morbidity assessment methods; sanitary examination of foods, giving hygienic assessment of the survey results; the value of the	IET 1. Hygiene in Preventive Medicine Module 1: Methods in Epidemiology and Epidemiology of Parasitic Diseas- es
nutrients: proteins, fats, carbohydrates, minerals and vita- mins, their daily requirement; physiology of labor and com- fortable living conditions; classification of the basic forms of human activities; Epidemiology of parasitic diseases of the principles, conditions of occurrence and spread of parasitic diseases and their prevention. As a result of studying the student will be able to apply	 The organization of sanitary- epidemiological service Epidemiology of Parasitic Disease Module 2: Hygiene for Consumers
the skills in the assessment of morbidity during the sani- tary-hygienic examination of foods, giving hygienic assess- ment of the survey results; the value of the nutrients: pro- teins, fats, carbohydrates, minerals and vitamins, their daily requirement; to evaluate the physiology of labor and com- fortable living conditions.	 Hygiene of water and sanitary guard of sources of water-supply Hygiene of public food consumption and trade
	Module 3: Legislation and Quality in Preventive Medicine •Legislation in Health Care

Ma Ge •B	 Occupational Physiology Module 4: Occupational Health and Gerontology Basics of Immunology in norm and
Ge •B	Basics of Immunology in norm and
1	
	oathology
•B	 Basics of Gerontology
M	Module 5: Marketing
•F	 Fundamentals of Marketing
	Module 6: Infection Control and Nutri- tion
●Ir	 Infection Prevention
•N	•Nutritional Care
	ET 2. Epidemiology in Preventive Medicine
tion; for use in their future careers legal documents of Ka-	Module 1: Methods in Epidemiology and Software
zakhstan, regulating the activity of consumer protection; an epidemiology and research methods, give an idea of the	
most important provisions and principles of modern epi- demiology. •T	 The organization of sanitary- epidemiological service
	 Using Epi Info software for epidemi- ological studies
	Nodule 2: Epidemiology and preven- tion of infectious
i i	 Epidemiology, prevention of bacteri- al and viral infections
•P	• Parasitology
	Module 3: Legislation and Quality in Preventive Medicine
H•	 Health legislation

 Actual Issues of Epidemiology
Module 4: Epidemiology and Preven- tion of Infections and Helmints
 Parasitology
•Epidemiology of helmints
Module 5: Marketing
 Fundamentals of Marketing
Module 6: Infection Control and Bi- osafety
 Infection Prevention
Biosafety and Biosecurity

The following **curriculum** for the <u>Bachelor's degree programme Preventive Medicine</u> is presented:

1st Se	emester										
a/a	Courses	Teachin	ghours				Workload	•	•	•	
		Theory	Practice - Exer- cises		Total	Totalin weeks	Theory	Practice - Exercises	Laborato- ry	Total	ECTS
	Corecourses										
1	The history of modern Kazakhstan (State Examination) - State Compulsory Module	2	1	0	3	15	2	1	0	3	3
2	Professionally-Oriented Kazakh(Russian) Language - State Compulsory Module	0	3	0	3	15	0	3	0	3	3
3	Professionally – Oriented Foreign Language - State Compulsory Module	0	2	1	3	15	0	2	1	3	3
4	Chemistry –Natural Sciences (STEM) module	2	0	1	3	15	4	0	1		5
5	History of Medicine-Natural Sciences (STEM)	1	2	0	3	15	2	2	0		4
6	Latin Language – Basic Professional Modules	1	1	1	3	15	3	1	1		5
7	Introduction to Specialty– Basic Professional Modules	1	1	0	2	15	3	1	0		4
	2nd Semester					-					27
a/a	Courses	Teachin	ghours				Workload	1	I	I	
			Practice		Total	To- talin-	Theory	Practice - Exercises	Laborato- rv	Total	ECTS
1	Physical and Colloid Chemistry–Natural Sci- ences (STEM)	1	0	2	3	15	2	0	2		4
2	Information and Communication Technologies– Natural Sciences (STEM)	1	1	1	3	15	3	1	1		5
3	Physiology – Basic Professional Modules	1	1	0	2	15	3	1	0		4
4	Basics of General Psychology– Basic Profes- sional Modules		1	0	2	15	3	1	0		4
5	General Immunology - Basic Professional Modules	1	1	1	3	15	3	1	1		4
6	Medical Biology -Basic Professional Modules	1	2	0	3	15	3	2	0		5
7	Anatomy -Basic Professional Modules	1	1	1	3	15	3	1	1		5
	PracticeTraining	60 hour	S			2					2
											33
	3rd Semester										
a/a	Courses	Teachir	ohours			٦	Workload	I	I	I	
a/a			Practice		Total	Totalin		Practice -	Laborato-	Total	ECTS
<u> </u>			- Exer-	torv				Exercises	rv		
1	Psychologyof Interpersonal Communication - Social andCommunicative Module or Theoreticaland AppliedPolitical Science - Social andCommunicative Module	1	1	0	2	15	2	1	0		3

0		1	1	0	6	1.7	b	4	0	1	<u>b</u>
2	Ethicsof Personal and Social Success - Social	1	1	0	2	15	2	1	0		3
	andCommunicative Module										
	Or Culture and Deligion Social and Communica										
	Culture and Religion - Social andCommunica- tive Module										
	live Module										
3	Histology - Basic Professional Modules	1	0	1	2	15	3	0	1		4
4	Biological Chemistry	1	1	1	3	15	3	1	1		5
5	Medical Biophysics -Basic Professional Mod-	1	2	0	3	15	3	2	0		5
	ules										
6	Microbiology, virusology -Basic Professional	1	1	1	3	15	3	1	1		5
	Modules										
7	General Epidemiology – Epidemiology Module	1	1	1	3	15	3	1	1		5
											30
											30
4th Se	emester										
a/a	Courses	Teachir	nghours				Workload		•		
		Theory	Practice	Labora-	Total	Totalin	Theory	Practice -	Laborato-	Total	ECTS
		-	- Exer-					Exercises	rv		
1	Basics of a healthy lifestyle - Basic Professional	1	1	0	2	15	3	1	0		4
	Modules										
2	Pathological Physiology - Basic Professional	1	1	1	3	15	3	1	1		5
	Modules										
2		1	1	1	2	1.5	2	1	1		
	Pathological Anatomy - Basic Professional	1	1	1	3	15	3	1	1		5
	Modules										
4	Pharmacology- Basic Professional Modules	1	1	1	3	15	3	1	1		5
	Pharmacology- Basic Professional Modules										
5		1	1	1	3	15	3	1	1		5
5	Introduction into clinical medicine- Basic	1	1	1	5	15	5	1	1		5
	Professional Modules										
6	General Hygiene – Hygiene Module	1	1	1	3	15	3	1	1		5
	PracticeTraining	60 hour	s				2			1	2
1											31
5thSa	mester		I	I		1		<u> </u>			+
a/a		Teachir	ahoura			1	Workload				+
a/a			Practice	Labora	Total	Totalir			Laborata	Tota ¹	ECTS
		rneory	- Exer-		Total	Totalin	Theory	Exercises		Total	EC IS
1	Basics of evidence-based medicine - Basic	1	- Exer-	torv 1	3	15	3	1	1		5
	Professional Modules										
2	Communal Hygiene - Hygiene Module	1	1	1	3	15	3	1	1		5
3	Hygiene of labor -Hygiene Module	1	1	1	3	15	3	1	1		5
									-		
4	DescreptiveAnalityc Epidemiology	1	2	0	3	15	3	2	0		5
	or										
1	Epidemiological methods										
	Modules of individual educational trajectories										
L				i			i	i	i		- J

				-	1-	1	1-		-		
5	Hygiene of public food consumption and trade	1	1	0	2	15	3	1	0		4
	or										
	Biosafety and biosecurity										
	Modules of individual educational trajectories										
6	English for professional purposes	0	2	0	2	15	0	2	0		2
	Or										
	Innovative Entrepreneurship										
	Interdisciplinary Module										
7	Intellectual property Law	1	1	0	2	15	2	1	0		3
	Or Al-Farabi and Contemporaneity										
	Interdisciplinary Module										
	interaiserprinal priodate										
											29
6thSe	mester										
a/a	Courses	Teachir	nghours				Workload				
a u		Theory	-	Labora-	Total	Totalin	Theory		Laborato-	Total	ECTS
_		-	tice-	torv	-		-	Exercises	rv		
1	Diseases of internal organs – Introduction into Clinical Medicine Module	1	1	1	3	15	3	1	1		5
2		1		1		1.7	2	1			~
2	Immunoprphylaxis of Infectious Diseases and the basics of disinfection – Epidemiology		1	1	3	15	3	1	1		5
	Module										
3	Bioststistics – Public Healthcare Module	1	2	0	3	15	3	2	0		5
4	Public Health and Healthcare -Public Healthcare	1	1	1	3	15	3	1	1		5
-	Module	1	1	1	5	15	5	1	1		5
5	Nutritional Care	1	2	0	3	15	3	2	0		5
	or										
	Using Epi Info Computer Program for Epidemi-										
	ological Studies										
	Modules of individual educational trajectories										
6	Infection prevention and control measures-	1	2	0	3	15	3	2	0		5
	Modules of individual educational trajectories										
7	PracticeTraining	150 hou	ırs			1	5				5
											35
											55
7thSe	mester										
a/a	Courses	Teachir	-	T 1	mr•	TT - **	Workload		T 1	TT (1	E CTC
		Theory	Practice - Exer-		Total	Totalin	Theory	Practice - Exercises		Total	ECTS
1	Infectious Diseases – Introduction into Clinical	1	- cxer- 1	1	3	15	3	1	1		5
	Medicine										
2	Hygiene of Nutrition – Hygiene Module	1	1	1	3	15	3	1	1		5
L											
		•	•	•	•	•	•	•	•	•	

3	Radiation Hygiene - Hygiene Module	1		1	1		3	15	i	3		1		1			5
4	Physiology of Labour	1		2	0		3	15	i	3		2		0			5
	Or Epidemiology, prevention of bacterial and infections Modules of individual educational trajecto																
5	Epidemiology of parasitic diseases Or Epidemiology of helmenthisms	1		2	0		3	15	5	3		2		0			5
6	Modules of individual educational traiecto Basics of Gerontology Or Epidemiology of Haemorrhagic Fever Dise Modules of individual educational trajecto	1 ases		2	0		3	15	5	3		2		0			5
	Systems analysis of chemical engine processes - IET 1 Chemistry and technolog rare elements	ering ¹ gy of		0	2		3	15	5	3		0		2			5
	Scientific writing - Modules of indiv educational trajectories	idual ¹		0	0		1	15	5	3		0		0			3
																	38
8thSe	mester																
a/a		Teachi								kload							ľ
		Theory		xer-to				Fotalin		ory	Pract Exerc			orato-	Tota	1	ECTS
	Occupational Diseases – Introduction into Clinical Medicine Module	1	1	1		3		15	3		1		1				5
	Surgical Diseases - Introduction into Clinical Medicine Module	1	1	1		3		15	3		1		1				5
	Hygiene of children and teenagers – Hy- giene Module	1	1	1		3		15	3		1		1				5
4	Hygiene of water and sanitary guard of sources of water-supply Or Epidemiology and prevention of infections associated with parenteral exposure	1	2	0		3		15	3		2		0				5
5	Modules of individual educational trajecto- Fundamentals of Marketing - Modules of individual educational trajectories	1	2	0		3		15	3		2		0				5
	Sanitary – Epidemiological Audit - Modules of individual educational trajecto- ries	1	2	0		3	-	15	3		2		0				5
Practio	ceTraining		1	50 ho	ours		-	5	<u> </u>								5
																	35
9thSe	mester																

a/a			chinghours					Workload						
	Г	heory	Practice		Total	Totalin	Theory			Laborato-	Total	ECTS	5	
			- Exer-	torv 1	3	15	3	Exer 1	cises	rv 1		5		
1	Productive sanitation and occupational health – Hygiene Module		-	-	5		2	-		-		0		
2	Desinfectology – Epidemiology Module 1		1	1	3	15	3	1		1		5		
3	The standard definition of infectious 1		1	1	3	15	3	1		1		5		
	diseases and measures of algorithms – Epidemiology module													
4	Population, health and the environment -1		1	1	3	15	3	1		1		5		
	Public Healthcare													
5	Health Legislation - Modules of individual 1		2	0	3	15	3	2		0		5		
5	educational trajectories		-	0	5	1.5	5	2		C .		5		
6	Childhood Diseases - Introduction into1		1	1	3	15	3	1		1	1	5		
	Clinical Medicine Module													
												2.0		
												30		
10thS	emester										<u> </u>	l		
a/a	Internships	A	llocatedh	ours			E	ECTS Wo	orkloa	d			<u> </u>	
2	Industry Internship	24	40 hours				8	3						
3	Pre-diploma Research Internship	21	10 hours				7	1						
	Preparation and Presentation of Bache	lor's 36	50 hours				1	2						
	Dissertation (Diploma Project)	101 350	50 nouis				1	. 2						
							2	27						
			Ov	verall inte	ernship	workload								
a/a	Internship	A	llocatedh	ours			F	ECTS Wo	rkloa	d				
a/a 1	Educational Practice - Учебная практика) hours	Juio			2							
2														
	Industry Internship		20 hours					.4						
3		re-diploma Research Internship 210 hours						1						
4	Preparation and Presentation ofBache Dissertation (Diploma Project)	lor's36	50 hours				1	2						
													274/36	
5	Additional type of practice:													
	Sport and Physical training													
	sport and i nysical training													

According to the self-assessment report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the <u>Master's degree programme Preventive Medicine</u>:

ASIIN SSC	Intended Learning Outcomes ⁵ of the Degree Programme	Corresponding Modules
Graduates		
	The aim ot his module is provision of fundamental knowledge and skills for practical implication in Preventive Medicine on the base of the following disciplines: History and Philosophy of Science; Foreign language (Professional); Pedagogics; Psychology. The main idea of this module concludes integration of information and concepts from a variety of disciplines including the sciences, economics, politics, and behavioral studies as they relate to current environmental issues; review and critically analyze science educa- tion reform initiatives, assessment strategies, and curriculum and instruction, evaluate psychological theories and their relevance to education and understand some of the current issues faced in edu- cation.	State Compulsory Module
Have advanced their knowledge in preventive medicine and epidemi- ology course is to provide the stu- dents with an overview of the principles and concepts of health research as well as principles of epidemiology with a brief introduc- tion into the clinical epidemiology.	It has a detailed knowledge of the trends in bases of teaching and research in Preventive Medicine and Epidemiology, application of statistical methods, principles of research, methodology of scien- tific inquiry, application of research methods into practice of pre- ventive medicine.	Research in Preventive Med- icine
	Application of knowledge in health legislation for advanced training of Master program, balance between law and bioethical issues are	Health Legislation and Bio-

⁵ See Section 2.1 "Programme Objectives and Learning Outcomes" of the *General Criteria for the Accreditation of Degree Programmes* of ASIIN, as of 28.03.2014

	main topics of this Module.	ethics
	Core topics of this module includes structural, functional, quality assurance questions of the performance within sanitary- epidemiological services (SES) alongside with application of re- search methods into practice and educational work of the SES.	Sanitary – Epidemiologic Services
have exemplarily applied their knowledge to complex issues or health care management and health economics problems and tasks to analyse, formulate, and possibly broadly solve them on a scientific basis;	Core topics will include the role theory and practice of management in preventive medicine, development of leadership for efficient functioning of SES and health care organizations. Analyzing deeply activity of organization, consequently a lot of right decisions will take place, which is important for further develop- ment of Preventive medicine services. Key topics also includes theory and practice in health economics, methods of evaluation of preventive programs.	Theory and Practice of Man- agement and Economics in Preventive Medicine
	It has a detailed knowledge of the trends in bases of teaching in Preventive medicine and Epidemiology requirements for preparing and giving lectures, seminars on preventive medicine and epidemi- ology, how to teach preventive medicine, ways of student motiva- tion, modern teaching methods: project-based learning, active learning, discussion methods, case-method, cooperative learning, modeling method, problem-solving method.	Teaching and Research Methods in Preventive Med- icine
	Key topics will include the role of main theories and models to change, to implement health promotion intervention to improve population health. Theory of health promotion alongside with practical skills will be applicable into practice in different settings and different age and gender groups of population. To promote the best use of preventive medicine resources through the develop-	Health Promotion and Epi- demiological Surveillance in Preventive Medicine

	ment of effective and efficient surveillance systems. Knowledge of the algorithm of epidemiological surveillance system of diseases will allow us to control the spread of diseases in society.				
	.This module includes two disciplines, that are devoted to: infection control and vaccination. Prevention of nosocomial infections is an important part of preventive medicine within health care system as well and vaccination to prevent infectious diseases especially among children.	Infection Control and Im- munoprophylaxis of diseases			
have exemplarily applied their knowledge to complex issues of health care management and health economics problems and tasks to analyse, formulate, and possibly broadly solve them on a scientific basis;	Main topics include the role theory and practice of management in preventive medicine, hygiene, development of leadership for effi- cient functioning of SES and health care organizations. Analyzing deeply activity of organization, consequently a lot of right decisions will take place, which is important for further develop- ment of Preventive medicine services. Key topics also includes theory and practice in health economics, methods of evaluation of preventive programs.	Health Management and Economics			
	It has a detailed knowledge of the trends in bases of teaching in Preventive medicine and Hygiene requirements for preparing and giving lectures, seminars on preventive medicine and hygiene, how to teach preventive medicine, ways of student motivation, modern teaching methods: project-based learning, active learning, discus- sion methods, case-method, cooperative learning, modeling meth- od, problem-solving method.	Teaching Methods and Envi- ronmental Health			

Key topics will include the role of main theories and models to change, to implement health promotion intervention to improve population health. Theory of health promotion alongside with practical skills will be applicable into practice in different settings and different age and gender groups of population. Key topics include overall understanding of medical anthropology, cultural systems models and cultural aspects of health, relationships between biomedicine and ethnomedicine. How people from differ- ent countries, with different social background explain causes of disease, how to keep wellness, and to whom they turn if they get ill.	Health Promotion and Cul- tural Aspects of Hygiene
Key topics include important chapters of the hygiene: Communal Hygiene in Preventive Medicine and Radiation Hygiene in Preventive Medicine. Kazakhstan is actively growing country with massive con- struction. At the same time there are many issues related to hu- mans' dwellings, water supply, quality of soil, indoor and outdoor air pollution. Radiation is also serious problem in the country.	Selected Issues of Hygiene

Γ	At the beginning of the last year each student is appainted a stick	
are qualified to discuss complex physical issues and their own re- search findings within the context of current international research comprehensively and to present them in written (Master's Thesis) and oral form (presentation with free discussion);	At the beginning of the last year each student is appointed a scien- tific supervisor who advise on the topic of the thesis. The last se- mester of the study period is completely devoted to the thesis writ- ing and teaching is not carried out at this period at all. Final thesis is a graduation work which summarizes students' results of an inde- pendent study and research on an actual problem specific for his/her specialty and/or corresponding branch of science. Topics of theses are approved by the order of the rector of the University and external reviewers are appointed from a general list that indicates employment and position of possible experts. Qualification of ex- ternal experts must strictly correspond to the thesis profile. Thesis defense is carried out in public at a meeting of the Government At- testation Commission appointed and approved by the Ministry of Education and Science of the Republic of Kazakhstan.	Master's Research
are aware of their responsibility toward science and possible con- sequences of their activities for the environment and society and act in accordance with the principles of good scientific practice (Deutsche Forschungsgemeinschaft 1998).	 developing of the personal qualities (ability) for self-learning at the end of the training program, to expand their knowledge based information and educational technologies; demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity; think critically, creatively and independently; conduct research and evaluate information by methods appropriate to the communications professions in which they work; 	Pedagogical practice Research practice Research Seminars

 — write correctly and clearly in forms and styles appropriate for the 	
communications professions, audiences and purposes they serve.	
	1

The following **curriculum** for the <u>Master's degree programme Preventive Medicine</u> is presented:

Track 1 Epidemiology

a/a	Courses	Teachin	ng hours				Workload				
		Theory	Practice - Exer-		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
	Core courses			-							
1	History and Philosophy of Science - Compulsory State Module	1	1	0	2		2	1			3
2	Foreign language (Professional) – Compulsory State Module	0	2	0	2		0	2			2
3	Organization and Planning of Scientific Research Compulsory Professional Module 1	1	1	0	2		3	1			4
4	Biostatistics – Compulsory Professional Module 1	2	1	0	3		6	1			7
5	Bioethics – Compulsory Professional Module 2	1	2	0	3		3	2			5
6	Epidemiology and Research Methods – Compulsory Professional Module 1	2	1	0	3		6	1			7
7	Research Seminar I	120 hou	ırs	•	<u> </u>	4			•		4
											32
	2nd Semester										
a/a	Courses	Teachin	ng hours				Workload	1	1	I	
			Practice	Labora-	Total	Total in	Theory	Practice ·	Laboratory	Total	ECTS
			- Exer-			weeks		Exercises			
1	Pedagogics – Compulsory State Module	1	1	0	2		2	1			3
2	Psychology - Compulsory State Module	1	1	0	2		2	1			3
3	Evidence-Based Medicine - Compulsory Profes- sional Module 1	1	1	0	3		3	1			4
4	Legislation in Health Care- Compulsory Profes- sional Module 2	1	2	0	3		3	2			5
5	Organization of sanitary-epidemiological services	1	1	0	2		3	1			4
6	Health Economics and Methods of Evaluation – Elective Module 1	1	2	0	3		3	2			5
7	Management in Preventive Medicine	1	1	0	2		3	1			4
,	- Elective module1		-	-	_						

											30
/	3rd Semester	TT 1.	1				XX7 11 1				_
/a	Courses		g hours	T - 1	T-4-1	Tratalia	Workload	D	T -1	T-4-1	ECTE
		Theory	Practice - Exer-		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
			Exer	tory				Excretises			
	Teaching Methods of Epidemiology - Elective module 2	1	2	0	3		3	2			5
	Applied Epidemiology in Preventive Medicine – Elective Module 2	1	1	0	2		3	1			4
1	Health Promotion and Prevention of Diseases - Elective module3	1	2	0	3		3	2			5
ļ	Epidemiological Surveillance in Preventive Medi- cine - Elective module3	1	1	0	3		3	1			4
5	Infection Control and Prevention of Nosocomial Infections - Elective module4	1	1	0	2		3	1			4
5	Immunoprophylaxis of Infectious Diseases - Elec- tive module4	1	2	0	3		3	2			5
1	Research Seminar III	60 hour	s	I	1	2					2
	Research Internship	30 hours 1									1
											31
4th Se	mester	l	l	l	l						
/a	Courses	Teachin	g hours				Workload				
		Theory	Practice - Exer-		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
	Research Internship	120 ho				-	4		4		
2	Pedagogic internship	210 hou	irs				7				7
;	Research Seminars	180 hou	irs				6				6
ļ	Thesis Writing and Defense	180 hou	irs				6				6
i	Complex Exam	120 hou	irs				4				4
							27				27
			Overall i	nternshij	o worklo	ad					
ı/a	Courses	Teachi ng		Work- load							
			Practice		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
			- Exel-				r				
	Research Internship	150 hou	rs				5				5
2	Research Internship Pedagogic internship	150 hou 210 hou	irs				5 7				5

4	Thesis Writing and Defense	180 hours	6	6
5	Complex Exam	120 hours	4	4
				84/36

Track 2 Hygiene in Preventive Medicine

1st Se	emester										
ı/a	Courses	Teaching hours					Workload				
		Theory	Practice - Exer-		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
	Core courses										
	History and Philosophy of Science - Compulsory State Module	1	1	0	2		2	1			3
2	Foreign language (Professional) – Compulsory State Module	0	2	0	2		0	2			2
3	Organization and Planning of Scientific Research Compulsory Professional Module 1	1	1	0	2		3	1			4
ŀ	Biostatistics – Compulsory Professional Module 1	2	1	0	3		6	1			7
5	Bioethics – Compulsory Professional Module 2	1	2	0	3		3	2			5
5	Epidemiology and Research Methods – Compulsory Professional Module 1	2	1	0	3		6	1			7
7	Research Seminar I	120 hou	ırs		•	4	1	1	1		4
											32
	2nd Semester					-					
ı/a	Courses	Teachir	ng hours				Workload	1	1		
		Theory	Practice - Exer-		Total	Total in weeks	Theory	Practice - Exercises	Laboratory	Total	ECTS
l	Pedagogics – Compulsory State Module	1	1	0	2		2	1			3
2	Psychology - Compulsory State Module	1	1	0	2		2	1			3
3	Evidence-Based Medicine - Compulsory Profes- sional Module 1	1	1	0	3		3	1			4
Ļ	Legislation in Health Care- Compulsory Profes- sional Module 2	1	2	0	3		3	2			5
5	Organization of sanitary-epidemiological services	1	1	0	2		3	1			4
5	Health Economics – Elective Module 1	1	2	0	3		3	2			5

1	Health Management - Elective module1	1	1	0	2		3	1		1	4
3	Research Seminar II	60 hour	rs			2					2
											30
	3rd Semester				l						
ı/a	Courses	Teachin	g hours				Workload				_
. u			Practice	Labora-	Total	Total in		Practice -	Laboratory	Total	ECTS
		rncory	- Exer-		Total	rotar m	Theory	Exercises	Laboratory	Total	Leib
		i									-
1	Teaching Methods of Hygiene - Elective module 2	1	2	0	3		3	2			5
2	Hygiene of Environment – Elective Module 2	1	1	0	2		3	1			4
3	Health Promotion Programs - Elective module3	1	2	0	3		3	2			5
4		1	2	0	2		2	h			<u> </u>
1	Cultural Aspects of Hygiene - Elective module3	1	2	0	3		3	2			4
5	Communal Hygiene in Preventive Medicine -	1	1	0	2		3	1			4
	Elective module4										
5	Radiation Hygiene in Preventive Medicne - Elec-	1	2	0	3		3	2			5
	tive module4										
7	Research Seminar III	60 hour	s		1	2	1	•			2
3	Research Internship	30 hour	rs				1				1
											31
th Se	emester										_
ı/a											
ı/d	Courses	Teachin	g hours				Workload				
v d	Courses		Practice		Total	Total in			Laboratory	Total	ECTS
l	Courses Research Internship	Theory	Practice - Exer-		Total			Practice - Exercises	Laboratory	Total	ECTS 4
1	Research Internship	Theory 120 ho	Practice - Exer- urs		Total		Theory 4		Laboratory	Total	
[Research Internship Pedagogic internship	Theory 120 hou 210 hou	Practice - Exer- urs		Total		Theory		Laboratory	Total	
1	Research Internship	Theory 120 ho	Practice - Exer- urs		Total		Theory 4		Laboratory	Total	
1 2 3	Research Internship Pedagogic internship	Theory 120 hou 210 hou	Practice - Exer- urs urs		Total		Theory 4 7		Laboratory	Total	4
1 2 3 4	Research Internship Pedagogic internship Research Seminars	Theory 120 hou 210 hou 180 hou	Practice - Exer- urs urs urs urs		Total		Theory 4 7 6		Laboratory	Total	4
1 2 3 4	Research Internship Pedagogic internship Research Seminars Thesis Writing and Defense	Theory 120 hou 210 hou 180 hou 180 hou	Practice - Exer- urs urs urs urs		Total	Total in	Theory 4 7 6 6		Laboratory	Total	4 6 6
1 2 3 4	Research Internship Pedagogic internship Research Seminars Thesis Writing and Defense	Theory 120 hou 210 hou 180 hou 180 hou	Practice - Exer- urs urs urs urs			Total in	Theory 4 7 6 6 4 4		Laboratory	Total	4 6 6 4
1 2 3 4 5	Research Internship Pedagogic internship Research Seminars Thesis Writing and Defense	Theory 120 hou 210 hou 180 hou 120 hou Teachi	Practice - Exer- urs urs urs urs overall i	tory nternship Work-		Total in	Theory 4 7 6 6 4 4		Laboratory	Total	4 6 6 4
1/a 1 2 3 4 5 	Research Internship Pedagogic internship Research Seminars Thesis Writing and Defense Complex Exam	Theory 120 hou 210 hou 180 hou 180 hou 120 hou Teachi ng	Practice - Exer- urs urs urs urs Overall i	tory nternship Work- load	worklos	Total in	Theory 4 7 6 6 4 27	Exercises			4 6 6 4 27
1 2 3 4 5	Research Internship Pedagogic internship Research Seminars Thesis Writing and Defense Complex Exam	Theory 120 hou 210 hou 180 hou 180 hou 120 hou Teachi ng	Practice - Exer- urs urs urs Overall i Practice - Exer-	nternship Work- load Labora-	worklos	Total in	Theory 4 7 6 6 4 27	Exercises	Laboratory		4 6 6 4

2	Pedagogic internship	210 hours	7	7
3	Research Seminars	420 hours	14	14
4	Thesis Writing and Defense	180 hours	6	6
5	Complex Exam	120 hours	4	4
				84/36

According to the self-assessment report, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the <u>Master's degree programme Public Health</u>:

ASIIN SSC	Intended Learning Outcomes ⁶ of the Degree Programme	Corresponding Modules
Graduates		
	The aim ot his module is provision of fundamental knowledge and skills for practical implication in Public Health on the base oft he following disciplines: History and Philosophy of Science; Foreign language (Professional); Pedagogics; Psychology; Biostatistics, and Bioethics. The main idea of this module concludes integration of information and concepts from a variety of disciplines including the sciences, economics, politics, and behavioral studies as they relate to current environmental issues; review and critically analyze science educa- tion reform initiatives, assessment strategies, and curriculum and instruction, evaluate psychological theories and their relevance to education and understand some of the current issues faced in edu- cation, application of statistical methods into public health, under- standing of bioethics, and its regulation in medicine and public health.	State Compulsory Module
have advanced their knowledge in public health and epidemiology course is to provide the students with an overview of the principles	It has a detailed knowledge of the trends in bases of teaching and research in Public Health and Epidemiology requirements for pre- paring and giving lectures, seminars on Public health and epidemi- ology, principles of research, methodology of scientific inquiry, ap- plication of research methods into practice of public health, how to	Research and Teaching in Public health

⁶ See Section 2.1 "Programme Objectives and Learning Outcomes" of the General Criteria for the Accreditation of Degree Programmes of ASIIN, as of 28.03.2014

and concepts of public health re- search and education as well as principles of epidemiology with a brief introduction into the clinical epidemiology;	teach public health, ways of student motivation, modern teaching methods: project-based learning, active learning, discussion meth- ods, case-method, cooperative learning, modeling method, prob- lem-solving method.	
	Key topics will include the role of main theories and models to change, to implement health promotion intervention to improve public's health. Theory of health promotion alongside with practical skills will be applicable into practice in different settings and different age and gender groups of population. The analysis in the field of Public Health, it is the most important approach which helps strengthening health in society, through ana- lyzing financial and social outcomes. Key topics will include the role of possession of spreadsheets, graphics and applications for better understanding of process of managing in Public Health. Knowledge in the field of managing Public Health, will afford strug- gle efficiently brining stable benefits to society we are live in.	Population Health and Man- agement
have exemplarily applied their knowledge to complex issues of health care management and health economics problems and tasks to analyse, formulate, and possibly broadly solve them on a scientific basis;	Core topics will include the role of knowledge in managing of medi- cal organization, for efficient functioning of health care system. Analyzing deeply activity of health care organization, consequently a lot of right decisions will take place, which is important for further development of Health Care. Key topics will include the role of possession of sufficient word pro- cessing and spreadsheets and applications. Understand and avoid the pitfalls of health economic evaluations.	Theory and Practice of Health Management and Economics

Key topics will include the theories and methods for conducting of rigorous study in health care. To carry out an assessment of advantages and benefits of quantita- tive and qualitative approaches to conduct studies in health Theory and methods of quantitative and qualitative inquiry will be applica- ble to reveal new challenges or generate hypothesis, or finding of practical solution for health care problem.	Research Methods in Health
Analysis of the existing paradigms related to health, illness, healthcare system, relationships between medical workers and pa- tients. Key topics will include social construction of medical knowledge, factors influencing to sociology of health, health care, and illness, Theory of Sociology of Health, Illness and Health care has a applica- tion into practice to make system more transparent and humanistic as well as more qualitative. Comprehensive analysis of a complex mix of environmental pollu- tants in public health using the most recent published literature in specialized The key outcome will be the capacity to generate hy- pothesis on the "exposure-outcome" association and find evidence to support it via comprehensive literature search.	Social, Behavioral and Envi- ronmental Aspects of Public Health
Analysis of the existing paradigms, approaches, assumptions, be- liefs, models, and systems. Key topics will include overall under- standing of medical anthropology, cultural systems models and cultural aspects of health, relationships between biomedicine and ethnomedicine. How people from different countries, with different social background explain causes of disease, how to keep wellness, and to whom they turn if they get ill.	Health Systems

As other research topics study of health systems can touch ethical questions therefore it is important to forecast potential risks for subjects of study and derived data. Use economical, statistical, managerial and other methods are used for analysis and evaluation of health system performance.	

Core topics will include the role of knowledge what was done and what we have to do for being healthy generation in present and in the future. Main approaches and methods which makes community be more careful, have to be learned by attendees for whole professional ac- tivity in the future. To use taken knowledge for making society better not only in ques-	Community-based Public Health
tions of health, but be responsible for it. Analysis of the existing paradigms, approaches, assumptions, be- liefs, models, and systems Key topics will include overall under- standing of medical anthropology, cultural systems models and cultural aspects of health, relationships between biomedicine and ethnomedicine. Theory of medical anthropology is applicable to the quality assur-	
ance of health care system and public health. This module includes the theories and methods for conducting of reliable and rigorous study in public health. To carry out an assessment of advantages and benefits of quantita- tive and qualitative approaches to conduct studies in public health. Theory and methods of quantitative and qualitative inquiry will be applicable to reveal new challenges or generate hypothesis, or find- ing of practical solution for public health issues.	Research Design in Public Health
Comprehensive analysis of a complex mix of environmental pollu- tants in public health using the most recent published literature in specialized journals. The key outcome will be the capacity to generate hypothesis on the "exposure-outcome" association and find evidence to support it via comprehensive literature search.	Risk Factors and Prevention of Diseases

Knowledge and skills to perform independent expertise of environ- mental health and occupational effects on selected health out- comes. Analysis of the characteristics and specificities of individual diseases , the identification of weaknesses and understanding of the patho- genesis and etiology . Thereby helping to develop effective ways of preventing the spread in society. Key topics will include the role of efficient instrument which can and have to be use in non-stop struggle with the dangerous diseases in society. Knowledge of the algorithm for diseases and approaches of preven- tion will allow us to act immediately, stopping the further spread of diseases in society.	
The key of considerations in planning, designing and providing the epidemiological surveillance. To promote the best use of public health resources through the de- velopment of effective and efficient surveillance systems. Knowledge of the algorithm of epidemiological surveillance system of diseases will allow us to control the spread of diseases in society. Analyzing the threats to the health of society, to be ready to act when there is no available evidence for a particular action. Be able to describe the process of seeking and using evidence: the ability to develop an answerable question, develop a search strategy to answer the question, and critically appraise and use the evidence. Ability of strengthening health in society using health promotion techniques and EBM approaches.	Community Health Evalua- tion

are qualified to discuss complex physical issues and their own re- search findings within the context of current international research comprehensively and to present them in written (Master's Thesis) and oral form (presentation with free discussion);	At the beginning of the last year each student is appointed a scien- tific supervisor who advise on the topic of the thesis. The last se- mester of the study period is completely devoted to the thesis writ- ing and teaching is not carried out at this period at all. Final thesis is a graduation work which summarizes students' results of an inde- pendent study and research on an actual problem specific for his/her specialty and/or corresponding branch of science. Topics of theses are approved by the order of the rector of the University and external reviewers are appointed from a general list that indicates employment and position of possible experts. Qualification of ex- ternal experts must strictly correspond to the thesis profile. Thesis defense is carried out in public at a meeting of the Government At- testation Commission appointed and approved by the Ministry of Education and Science of the Republic of Kazakhstan.	Master's Research
are aware of their responsibility toward science and possible con- sequences of their activities for the environment and society and act in accordance with the principles of good scientific practice (Deutsche Forschungsgemeinschaft 1998).	 developing of the personal qualities (ability) for self-learning at the end of the training program, to expand their knowledge based information and educational technologies; demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity; think critically, creatively and independently; conduct research and evaluate information by methods appropriate to the communications professions in which they work; 	Pedagogical practice Research practice Research Seminars

- write correctly and clearly in forms and styles appropriate for the	
communications professions, audiences and purposes they serve.	

The following **curriculum** for the <u>Master's degree programme Public Health</u> is presented:

Track 1 Health Policy and Management

1st Ser	nester										
a/a	Courses	Teachin	g hours				Workload				
		Theory	Practice - Exer-		Total	Total in	•	Practice - Exercises	Laboratory	Total	ECTS
	Core courses										
1	History and Philosophy of Science - Compulsory State Module	1	1	0	2		2	1			3
2	Foreign language (Professional) – Compulsory State Module	0	2	0	2		0	2			2
3	Biostatistics – Compulsory State Module	1	1	0	2		2	1			3
4	Bioethics – Compulsory State Module	1	1	0	2		2	1			3
5	Epidemiology – Compulsory Professional Module 1	1	1	0	2		3	1			4
~	Health Promotion and Prevention of Diseases - Compulsory Professional Module 2	1	1	0	2		3	1			4
7	Management in Public Health - Compulsory Professional Module 2			0	3		6	1			7
	Research Seminar I	120 hou	Irs			4					4
7											30
	2nd Semester										
a/a	Courses		g hours		-		Workload				
		Theory	Practice - Exer-		Total	Total in weeks	-	Practice - Exercises	Laboratory	Total	ECTS
1	Pedagogics – Compulsory State Module	1	1	0	2		2	1			3
2	Psychology - Compulsory State Module	1	1	0	2		2	1			3
	Methodology of Research in Public Health - Com- pulsory Professional Module 4	2	1	0	3		6	1			7
	Methods of Teaching in Public Health - Compulso- ry Professional Module 4	2	1	0	3		6	1			7
	Health Care Management - Elective module 1(Theory and Practice of Health Management and Economics)		_	0	2		3	1			4
	Health Economics - Elective module 1(Theory and Practice of Health Management and Economics)	1	2	0	3		3	2			5
7	Research Seminar II	60 hour	s			2					2
											31

	3rd Semester										
/a	Courses		g hours Practice	Labora-	Total	Total in	Workload Theory	Practice ·	Laboratory	Total	ECTS
			- Exer-	tory				Exercises			
	Quantitative Research Methods for Health Manag- ers - Elective module2 (Research Methods in Health)		2	0	3		3	2			5
	Qualitative Research in Health Care - Elective module2 (Research Methods in Health)	1	2	0	3		3	2			5
	Sociology of Health, Illness and Health Care - Elective module3(Social, Behavioral and Envi- ronmental Aspects of Public Health)	1	2	0	3		3	2			5
	Environment and Population Health - Elective module3(Social, Behavioral and Envi- ronmental Aspects of Public Health)	1	2	0	3		3	2			5
i	International Health and Health Systems – Elective Module 4 (Health Systems)	1	1	0	2		3	1			4
5	Analysis and Evaluation of Health Systems– Elective Module 4 (Health Systems)	1	2	0	3		3	2			5
	Research Seminar III	60 hour	s			2	I	1			2
	Research Internship	30 hou	rs			•	1				1
											32
	emester	-				T	*** 11 1				
/a	Courses		g hours Practice		Total	Total in	Workload Theory	Practice ·	Laboratory	Total	ECTS
	Research Internship	120 ho	- Exer- urs	tory			4	Exercises			4
							7				
	Pedagogic internship	210 hou	irs				7				
	Pedagogic internship Research Seminars	210 hou 180 hou					7 6				6
			ırs								6
	Research Seminars	180 hou	urs				6				
	Research Seminars Thesis Writing and Defense	180 hou 180 hou	urs				6				6
	Research Seminars Thesis Writing and Defense	180 hou 180 hou	urs	nternship) worklo		6 6 4				6
	Research Seminars Thesis Writing and Defense Complex Exam Courses	180 hou 180 hou 120 hou Teachi	ırs ırs Overall i	Work-) worklo		6 6 4				6
	Research Seminars Thesis Writing and Defense Complex Exam Courses	180 hou 180 hou 120 hou Teachi ng	Irs Irs Overall i Practice	Work- load Labora-			6 6 4 27		Laboratory	Total	6 4 27
	Research Seminars Thesis Writing and Defense Complex Exam Courses	180 hou 180 hou 120 hou Teachi ng	Irs Irs Overall i Practice - Exer-	Work- load Labora-		ad	6 6 4 27	Practice - Exercises	Laboratory	Total	6
2 3 4 5 5	Research Seminars Thesis Writing and Defense Complex Exam Courses Research Internship	180 hou 180 hou 120 hou Teachi ng Theory	Irs Irs Overall i Practice - Exer- Irs	Work- load Labora-		ad	6 6 4 27 Theory		Laboratory	Total	6 4 27 ECTS

4	Thesis Writing and Defense	180 hours	6	6
5	Complex Exam	120 hours	4	4
				84/36

Track 2 Community Health

a/a	Courses	Teaching hours				Workload		-			
		Theory	Practice - Exer-		Total	Total in	Theory	Practice - Exercises	Laboratory	Total	ECTS
	Core courses										
l	History and Philosophy of Science - Compulsory State Module	1	1	0	2		2	1			3
2	Foreign language (Professional) – Compulsory State Module	0	2	0	2		0	2			2
3	Biostatistics – Compulsory State Module	1	1	0	2		2	1			3
4	Bioethics – Compulsory State Module	1	1	0	2		2	1			3
5	Epidemiology – Compulsory Professional Module 1	1	1	0	2		3	1			4
6	Health Promotion and Prevention of Diseases - Compulsory Professional Module 2	1	1	0	2		3	1			4
7	Management in Public Health - Compulsory Professional Module 2		[0	3		6	1			7
	Research Seminar I	120 hours 4							4		
7											30
	2nd Semester					_					-
,		m 1.	,				*** 11 1				
a/a	Courses	Teaching hours Theory Practice Labora- Total Total i					Workload Theory Practice -Laboratory Total				E OT
		Theory	Practice - Exer-		Total	Total in weeks	Theory	Practice - Exercises	-Laboratory	Total	ECTS
1	Pedagogics – Compulsory State Module	1	1	0	2		2	1			3
2	Psychology - Compulsory State Module	1	1	0	2		2	1			3
3	Methodology of Research in Public Health - Com- pulsory Professional Module 4	2	1	0	3		6	1			7
1	Methods of Teaching in Public Health - Compulso- ry Professional Module 4	2	1	0	3		6	1			7
5	Community-based Health Programs - Elective module 1(Community-based Public Health)	1	1	0	2		3	1			4

-			-		1	1	-	1-	1		
6	Culture and Health - Elective module	1	2	0	3		3	2			5
	1(Community-based Public Health)										
7	Research Seminar II	60 hour	s			2					2
											31
											-
	3rd Semester										
											_
a/a	Courses	Teaching hours				Workload					
		Theory	Practice	Labora-	Total	Total in	Theory		Laboratory	Total	ECTS
			- Exer-	tory				Exercises			
1	Quantitative Research Methods in Public Health - Elective module2 (Research Design in Public Health)	1	2	0	3		3	2			5
2	Qualitative Research in Health Care	1	2	0	3		3	2			5
	- Elective module2 (Research Design in Public Health)										
3	Prevention of Communicable and Non-	1	2	0	3		3	2			5
	Communicable Diseases and Injuries - Elective module 3 (Risk Factors and Prevention of Diseases)						-				_
4	Environmental Health	1	2	0	3		3	2.			5
+	- Elective module 3 (Risk Factors and Prevention of Diseases)	1	2	0	5		5	2			5
		1		0	2		2	1			
5	Evidence-Based Health Promotion and Health Education– Elective Module 4 (Community Health Evaluation)	1	1	0	2		3	1			4
6	Epidemiological Surveillance – Elective Module 4	1	2	0	3		3	2			5
5	(Community Health Evaluation)	1	2	0	5		5	_			
7	Research Seminar III	60 hour	s			2	L				2
2	Research Internship	30 hou				Γ	1				1
5	Research mensing	30 nours					1				1
											32
Ath Ca	mester										
		I				1					_
a/a	Courses		g hours				Workload				
			- Exer-	Labora- tory	Total	Total in		Practice - Exercises	Laboratory	Total	ECTS
1	Research Internship	120 ho	urs				4				4
2	Pedagogic internship	210 hours			7						
3	Research Seminars	180 hours				6				6	
4	Thesis Writing and Defense	180 hours			6				6		
5	Complex Exam	120 hou	irs				4				4
							27				27
_			Overall	internship	workloa	ad				I	
n/a	Courses	Teachi	Overall	Work-	workloa	ad					
a/a	Courses	ng		-		ad Total in		Practice -	Laboratory		ECTS

1	Research Internship	150 hours	5	5
2	Pedagogic internship	210 hours	7	7
3	Research Seminars	420 hours	14	14
4	Thesis Writing and Defense	180 hours	6	6
5	Complex Exam	120 hours	4	4
				84/36