REPORT

on the results of the External Expert Panel's work on evaluation
of the compliance with the requirements of the specialized accreditation
standards of the academic programs:

6D074000 – «Nanomaterials and nanotechnologies (by area of applicability)»,
5B074600 – «Space-system engineering and technology», 6M074600 –
«Space-system engineering and technology»

of the "Kazakh National Research Technical
University named after K.I.Satpayev"
May 25-27, 2016

Almaty city 2016

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
External Expert Panel

Addressed to the
IAAR Accreditation Council

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of the compliance with the requirements of the specialized accreditation standards
of the academic programs:

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Almaty city   **May 25, 2016**

Based on the Order of the Independent agency for accreditation and rating (hereinafter – IAAR) no. 24-16-OD as of 24/05/2016 external expert panel evaluated the compliance of the academic programs of the "Kazakh National Research Technical University named after K.I. Satpayev": 6D074000 – «Nanomaterials and nanotechnologies (by area of applicability)», 5B074600 – «Space-system engineering and technology», 6M074600 – «Space-system engineering and technology» with the specialized accreditation standards of IAAR.

The report of the external expert panel (hereinafter - EEP) contains an assessment of the presented academic programs to the criteria of the IAAR, as well as EEP recommendations for further improvement of academic programs and profile parameters of the academic programs of the "Kazakh National Research Technical University named after K.I. Satpayev".

EEP membership:

1. **Panel Chair – Vladimir Kosov**, Doctor of Physical and Mathematical Sciences, Professor, Kazakh National Pedagogical University named after Abaya (Almaty city);

2. **International Expert – Prof. Erika Vaiginiene**, Deputy Director for Research, Innovation and Quality of the International Business School at the Vilnius University of the Republic of Lithuania, FIBAA expert;

3. **International Expert – Gostin Alexsei**, Ph.D. in technical sciences, Associate Professor, Ryazan State Radio Engineering University, an expert of the Guild of Experts in Vocational Education (Ryazan city, Russian Federation);

4. **Expert – Kornilova Alla**, Doctor of Architecture, IAA Professor, Member of the Union of Architects of the Republic of Kazakhstan, member of the Union of Urban Developers of the Republic of Kazakhstan, member of the Academic Methodological Association under the Ministry of Education and Science of the Republic of Kazakhstan for architectural and construction specialties, JSC "Kazakh Agrotechnical University named after S.Seifullin" (Astana city);

5. **Expert – Bodikov Seifolla**, Karaganda State University named after E.A. Buketova, a member of the Union of Designers of the Republic of Kazakhstan, a member of the Eurasian Union of Designers (Karaganda city);

6. **Expert – Duskaev Kasim**, Ph.D. in Technical Sciences, Professor, Kazakh National University named after Al-Farabi (Almaty city);

7. **Expert – Khamraev Sheripidin**, Ph.D. in Technical Sciences, Associate professor, Professor of the Kazakh National Pedagogical University named after Abaya (Almaty city);

8. **Expert – Markovski Vadim**, Ph.D. in Technical Sciences, Associate professor of the Pavlodar State University named after S.Toraigyrova (Pavlodar city);

9. **Expert – Balabekova Aigul**, Ph.D. in Technical Sciences, Associate professor of the Department "State and local administration", Academy of Public Administration under the President of the Republic of Kazakhstan (Astana);

10. **Expert – Abishev Kairatolla**, Ph.D. in Technical Sciences, corresponding member of the National Academy of Sciences of Machine Building and Transport of the Republic of Kazakhstan, JSC "Kazakh Agrotechnical University named after S.Seifullina"(Astana city);

11. **Expert – Sauranbay Sandugash**, PhD, Licensed appraiser, University of Narhoz (Almaty city);

12. **Expert – Ismailova Guzal**, PhD, Kazakh National University named after Al-Farabi (Almaty city);

13. **Expert – Mayemerova Gulnara**, PhD, Kazakh National University named after Al-Farabi (Almaty city);

14. **Employer – Shpadi Yuri**, Ph.D. in Technical Sciences, "Institute of Space Technology and Technology" subsidiary LLP, VNS laboratory of space systems for scientific purposes (Almaty city);
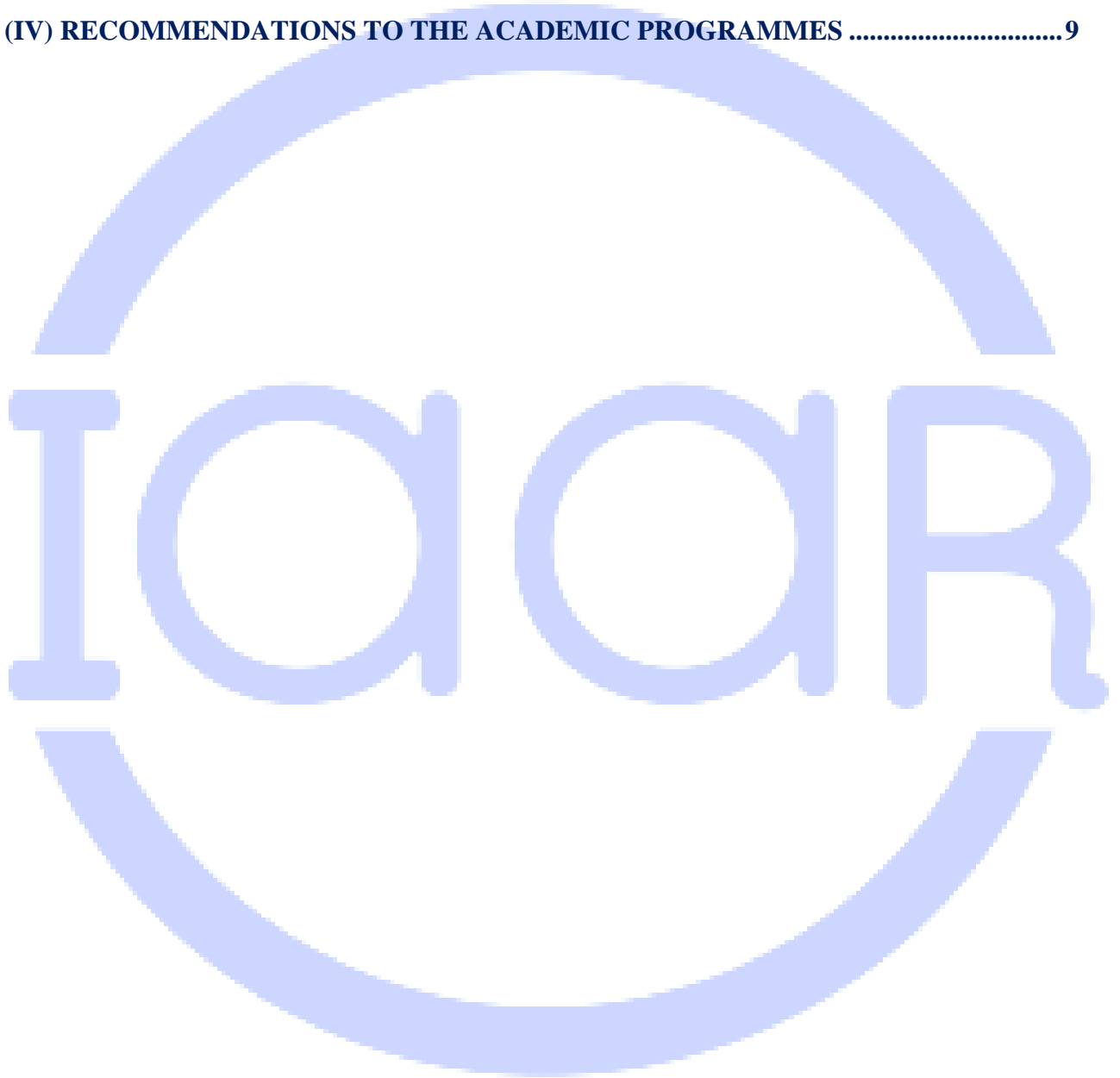
15. **Student – Nadirova Bella**, student of the third year in Finance, Kazakh Automobile and Road Academy named after L.B.Goncharova (Almaty city);

16. **Observer from the Agency – Kanapyanov Timur,** Head of the IAAR International Projects (Astana city).

CONTENT

(I) INTRODUCTION OF THE KAZAKH NATIONAL TECHNICAL UNIVERSITY NAMED AFTER K.I.SATPAYEVA

1934 incepted the first academic year of the Kazakh Mining and Metallurgical Institute (KazMMI), the area of the academic buildings of the Institute accounted for 620 square meters, dormitories - 340 square meters, there are 9 departments and 3 laboratories. The number of administrative and technical specialists was 27 people.

In the beginning of 1934/35 academic year, together with the third year students from Semey, 2 professors, 4 associate professors, 10 teachers, altogether 16 people transferred to KazMMI.

From 1934 to 1938, students' admission for the first year increased by 559 people, of whom 66 were Kazakhs. The faculty comprised 163 people, including 12 professors and 30 associate professors.

Since 1960 KazMMI has become one of the largest higher educational institution (hereinafter – HEI) in the USSR for the training of engineers, teachers and scientists.

Today Kazakh National Research Technical University named after K.I. Satpayev (hereinafter – KNRTU) has published the Quality Assurance Policy. The KNRTU policy on quality, the main provisions and the procedure for its adoption are described in the "Quality Guidance" and documented procedures of the QMS of the KNRTU - 502 "Analysis by management" procedure, documented procedures of the KNRTU 503 "Administration from the management" (http: // www. Kazntu.kz/en/about-university/smk).

The Quality Policy sets out the goals, activities and commitments of the HEI and the KNRTU quality management guidelines that take into account the degree of customer satisfaction, the compliance of the quality management system with the requirements of ISO 9001-2008, the ENQA Standards and Guidelines, the effective application of the system and the dynamics of its improvement (constant rising of the quality management system effectiveness) for quality assurance. The main goal of the Policy is to ensure quality assurance of educational activities by meeting the consumer requirements.

Collegial discussion by the top management of the issues of development and approval of the Policy and objectives in the field of quality, planning of works to achieve the quality objectives was carried out by the Academic Council of the University.

Mission statement and Politicians in the field of quality are published on the University's website (http://kazntu.kz/ru/about-university/smk), stands of departments and institutes, in the library, in the offices of the heads of the University services, i.e. in accessible venues to ensure familiarity with the documents of all teaching staff, employees and students of the KNRTU, as well as employers and other stakeholders.

In the case of changes in external factors in the educational space, reforming or reorganizing the existing management system of the HEI, the restructuring of the mission, the quality objectives and development goals of the university, i.e. in general, the quality policy is adjusted to meet the new requirements. The center of responsibility, providing these changes, is the Academic Council of the HEI.

The interrelations between teaching, research studies and learning and between the business community and the HEI play a key role in the Quality Assurance Policy, and it is reinforced by the university's transition to research status.

To achieve this goal, the University pursues a permanent policy:

− Integration of the academic process and research activities, the development of students by means the research and the formation of students' professional competence and ethical standards through the use of their own scientific results in training of academic programs agreed with employers, strategic partners of the University ("Development Strategy of the University- 2020", http://kazntu.kz/ru/about-university/strategicheskie_dokuvtyni_http://www.kazntu.kz/ru/science);

− development of cooperation "university-industry" and partnership relations with scientific and educational organizations.

The quality of the university's work is a common matter. Quality improvement is a matter of honor for each and every faculty member, employee and student at the university. The University took responsibility for the effective functioning of the university management system based on the requirements of the ISO Quality Management Standards ISO 9001: 2008, the ENQA Standards and Guideliness, its own standards, as a guarantee of the quality of the university's activities. The main goal is to guarantee the quality of academic activity by meeting the consumer requirements.

The policy of KNRTU named after K.I. Satpayev today is focused on improving the corporate culture and preserving values. The HEI adopted and approved the main regulatory documents that determine the policy in the field of quality assurance culture: the University's Articles of Association, the Internal Regulations, the Code of Corporate Culture of the faculty and students of KNRTU named after K.I. Satpayev. Corporate culture is the decisive factor determining the effectiveness of the University.

The development of the quality assurance culture in the university may be validated by the success in achieving target quality assurance indicators, the results of external assessments. Among the main achievements:

– KNRTU named after K.I. Satpayev was the first in Kazakhstan to undertake and re-confirm the International Institutional Assessment in the European Association of Universities (EUA) based on the International Evaluation Program (IEP, International Evaluation Program, 2010, 2014);

– KNRTU named after K.I. Satpayev becomes the 1st in the rating of Kazakhstan universities based on academic indicators of specialists training among technical universities, and is the leader in technical sciences and technologies according to the rating results of the academic programs of universities held by the National Accreditation Center of the Republic of Kazakhstan (now the Center for the Bologna process and academic mobility) throughout the period from 2011 and 2015;

– in November 2015, the university undertook and re-confirmed the national institutional assessment in the accreditation agency of IQAA (Kazakhstan);

– KNRTU named after K.I. Satpayev in the international ranking of universities QS World University Rankings - 2015 ranked 501+ among the Top 800 best universities in the world, improving the indicator in 2014 in 100 positions. In the ranking of QS University Rankings: Emerging Europe and Central Asia 2014/1, KNRTU entered the list of eight universities of Kazakhstan, which were included in the Top 100, winning 51-60 place;

– According to the estimation of the international rating agency Webometrics Ranking of World Universities KNRTU became the leader among Kazakhstan universities, winning the first place;

– KNRTU named after K.I. Satpayev in 2014 successfully passed the State Attestation for the right to provide educational activities and was certified for a period of 5 years (order of the Ministry of Education and Science of the Republic of Kazakhstan as of 06. 05. 2014 No. 821);

– In 2014, the system of quality management at the University was subjected to recertification and confirmed the **double QMS certificate** for compliance with the international standard ISO 9001: 2008 under No. 14.0985.026 as of August 11, 2014 from the Association for Certification "Russian Register" and the International Network of Certification Agencies "IQNet";

– KNRTU named after K.I. Satpayev is the leader among Kazakhstan universities in the Eurorating-2013 (Academic ranking of world universities-European standard ARES);

– KNRTU named after K.I. Satpayev is defined by one of the 11 basic ones on training specialists for the State Programme of industrial and innovation development of the Republic of Kazakhstan-2.

The quality assurance policy applies to those activities that are performed by contractors and partners. The university relays certain functions to outsourcing that do not necessarily have to be performed with the help of their local personnel, but rather should be relayed to the specialized organization. Outsourcing processes performed with the help of external organizations include: provision of energy resources, servicing of individual equipment, banking services for cash and settlement services, medical services, personnel training, checks by control and supervision bodies, services for certification of QMS products, accreditation and Certification of testing laboratories, accreditation of academic programs.

The management of outsourcing processes and the requirements for outsourcing are fixed in the Quality Guidelines, the KNRTU documentation procedure "Informational and Telecommunication Service", the KNRTU subsidiary of "Public Procurement Management, etc.

KNRTU named after K.I. Satpayev systematically analyzes the state and perspective development of industrial sectors of the Republic of Kazakhstan, the annual Addresses of the President of the country N.A. Nazarbayev to the people of Kazakhstan with the aim of adjusting the content of the academic programs and the compliance of trained specialists with labor market requirements. This analysis is made by the majoring departments, academic institutions and relevant departments of the university.

The results of the analysis are used to develop proposals for strategic planning for the development of institutions, departments and the university as a whole.

(II) OUTLINE OF THE EEP VISIT

Information about employees and students who attended meetings with the IAAR's EEP

Category of attendees	Quantity
Rector	1
Vice-rectors	3
Institute directors	8
Heads of departments	13
Department Directors and heads of divisions	18
Teachers	96
Students, master degree students, doctors	79
Graduates	70
Employers	61
Total	**349**

During the visit members of the EEP familiarized with the state of the material and technical facilities, visited museum of the KNRTU named after K.I. Satpayev, the mineralogical museum, the Scientific Library, the training ground of the Mining and Metallurgical Institute, the National Scientific Laboratory of Information and Space Technologies for the collective use, the laboratory of the engineering profile, the supercomputer laboratory, the Apple computer classroom, the Cisco Regional Academy classroom, the computer class "Cryptographic methods of information protection", Computer class "Methods of the computer information means of protection ", the office of doctoral candidates "Alternative energy sources. Automation and Automatizaton", computer class" Modeling of electric power and electrotechnical complexes ", laboratory" Electric machines. Modern electric drive control systems", Schneider Electric wiring and engineering design laboratory, programming laboratory for systems with programmable logic controllers, energy efficiency and energy security laboratory, computer and lecture classes.

The events planned within the framework of the visit of the IAAR EEP facilitated the detailed familiarization of experts with the university's educational infrastructure, material and technical resources, faculty, representatives of employers' organizations, students and graduates. This allowed the IAAR EEP members to conduct an independent assessment of the compliance of the data set out in the self-assessment reports of the university's academic programs to the criteria of the specialized accreditation standards of the IAAR.

Within the framework of the planned program, recommendations on improving the University's activities developed by the EEP on the results of the examination were presented at a meeting with the management on May 27, 2016.

(III) GENERAL ASSESSMENT OF THE ACADEMIC PROGRAMMES

Training of specialists in the field 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)", has been carried out since 2010. Preparation of bachelors on the specialty 5B074600 "Space-system engineering and technology" has began since 01.09.2011 (State Educational Establishment of the Republic of Kazakhstan 6.08.028-2009). Preparation of masters in the specialty 6M074600 "Space-system engineering and technology" started since 01.09.2012 (State Educational Establishment of the Republic of Kazakhstan on 7.09.181-2010).

To date, the graduating department of the "Machinebuilding, Materials Science and Technology of Machine-Building Production" and "General and Theoretical Physics", 5B074600 - "Space-system engineering and technology" and the departments "Machine-building, Materials Science and Technology of Engineering Production" are the graduating departments of the academic program 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" 6M074600 - "Space-system engineering and technology" is the department "Exploitation of space vehicles".

Educational program 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" is implemented in accordance with the License for the right to conduct educational activities series No. KZ 56 LAA00005304 as of 11.07.2015, and also on the basis of the development plan for the doctoral program of specialty 6D074000 for 2013- 2018 academic years, developed on the basis of the regulatory documents of the Republic of Kazakhstan (Law of the Republic of Kazakhstan No. 319-III as of July 27, 2007 "On Education" and Law of the Republic of Kazakhstan No. 407-IV as of February 18, 2011 "On Science"), State Programme for the development of education of the Republic of Kazakhstan for 2011-2020 and internal documents of the University (Development Strategy of KazNTU named after K.I. Satpayev until 2020, Strategy of development of the Institute of Industrial Engineering named after A. Burkitbayev).

The graduate of doctoral studies on 6D074000 - "Nanomaterials and nanotechnologies" is awarded the academic degree of Doctor of Philosophy (PhD) or doctor by profile and is given a state diploma with an annex (transcript).

Graduate 5B074600 - "Space-system engineering and technology" is awarded an academic degree of the bachelor of engineering and technology in the specialty 5B074600 - "Space-system engineering and technology".

Graduate 6M074600 - "Space-system engineering and technology" is awarded the academic degree of Master of Engineering in the specialty 6M074600 - "Space-system engineering and technology".

According to the program of doctoral studies, the general and professional competences of higher education are mastered according to the Dublin descriptors. An academic programme is developed separately by forms, levels and terms of training.

Educational activity is carried out using credit technology under the "Rules for the organization of the educational process for the credit technology of education" No. 152, approved by the Ministry of Education and Science of the Republic of Kazakhstan as of 20.04.2011. (With amendments and additions as of June 2, 2014).

PhD doctors are trained full-time. In accordance with the requests of students, the requirements of employers and the labor market, the content of academic programs is adjusted annually through the catalogue of elective disciplines (QED) and the updated curriculum of disciplines.

Modern educational technologies are used to ensure the quality of personnel training that meet the labor market requirements: project technology, critical thinking technology, case studies, information and communication technologies, problem-learning technologies, context-oriented learning technologies, interactive forms and methods of teaching.

Evaluation of educational achievements and the level of doctoral students' training is ensured through the use of a score-rating system, as well as using the corporate information management system LMS "Polytech".

The academic program of the specialty 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" was developed in accordance with the state compulsory education standard. The languages of instruction are Russian and Kazakh.

The area of specialization for PhD 6D074000 is "Nanomaterials and nanotechnologies (by area of applicability)" - scientific and pedagogical with a 3-year period of study, 5B074600 - "Space-system engineering and technology" with a 4-year period of study and 6M074600 specialty" Space-system engineering and technology" with a 2-year period of study.

The students' population in the specialty 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" is 15 people, 10 (67%) doctoral students are trained on the educational grant, 5 (33%) for the target training, 5B074600 - "Space-system Engineering and technology" accounts for 25 people, in the specialty 6M074600 -" Space-system engineering and technology" equals to 27 people.

(IV) RECOMMENDATIONS TO THE ACADEMIC PROGRAMME

1) Standard "Management of the academic program"
- to assess the risks of the academic program 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)";
- to ensure more proactive involvement of stakeholders in the formation, revision, monitoring of the academic program development plans, as well as informing them about the content of the academic programme;
- to reflect the individuality and uniqueness of the academic programme 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" according to the market needs;
- to ensure the availability of a communication channel, whereby any interested person can make innovative proposals to the management on improvement of the academic programme.
- under the academic programme 5B074600 / 6M074600 - «Space-system engineering and technology» to increase the involvement of employers in the formation of the development plan for the academic programme.
- to continue actions in the opening of the basic department in JSC National Center for Space Research and Technologies in collaboration with the academic program 5B074600 / 6M074600 - "Space-system engineering and technology" for solving applied problems and in-depth training of personnel.

2) Standard "Development and approval of the academic program"
- according to the academic programme 5B074600 / 6M074600 - «Space-system engineering and technology»
- to continue the completion of the joint academic program with foreign educational organizations;
- in the development of the academic program 6D074000 - "Nanomaterials and nanotechnologies (by area of applicability)" to distribute elective disciplines based on individual educational paths, taking into account the specific nature of scientific research of doctoral students (determine their titiles based on the specialization of the individual educational paths);
- to strengthen the availability of joint academic programs with foreign educational organizations;
- to enhance the harmonization of the academic programs' content with similar academic programs of leading foreign and Kazakhstani educational organizations;
- to advance the content, scope, logic of the construction of the individual educational paths for students;
- to direct efforts to obtain a license under the academic program 6M074000 - "Nanomaterials and nanotechnologies.

3) Standard "Student-centered learning, teaching and assessment of academic performance"
- to strengthen the activity of the teaching staff in the implementation of active and innovative teaching methods in the educational process. The management of the academic program shall

ensure the monitoring of the effectiveness and productiveness of innovation and the use of active teaching methods. To focus on the publication of own developments in the state language.

▪ to strengthen the availability of own developments in the field of methods of teaching the academic disciplines.

▪ to strengthen monitoring of students' satisfaction with the professional internship attachments.

4) Standard "Students"

▪ the management of the academic program 5B074600 / 6M074600 - "Space-system engineering and technology" should strengthen vocational guidance work to attract students to the academic program.

▪ the institution of higher education and management should provide an opportunity for internal and external mobility of students, as well as render assistance to them in obtaining external grants for training.

5) Standard "Teaching staff and teaching effectiveness"

▪ The university should demonstrate the availability to the public of information about the faculty, including the catalogues of the teaching staff, the publication of questionnaires on the university's website.

▪ The management of the academic program should ensure actions for the professional development of young teachers.

▪ development of the academic program should strengthen the academic mobility of teachers, as well as attracting the best foreign teachers to share experiences and conduct joint research.

▪ In connection with the planned introduction of a multilingual education in accordance with the academic program 5B074600 / 6M074600 - "Space-system engineering and technology", to enhance the qualification of the teaching staff with the receipt of certificates on the completion of English courses.

▪ Under the academic program 6D074000 - "Nanomaterials and nanotechnologies" to increase the indices changes in the role of the teacher in connection with the transition to student-centered learning.

▪ To ensure the connection between the research and training in accordance with the academic program 6D074000 - "Nanomaterials and nanotechnologies".

▪ Under the academic program 6D074000 - "Nanomaterials and nanotechnologies" to increase the indicators for professional development, vocational and personal advancement of the teaching staff.

▪ To provide a system for stimulating the professional and personal development of teachers and staff according to the academic program 6D074000 - "Nanomaterials and nanotechnologies".

6) Standard "Educational resources and student support systems"

▪ To increase the availability of modern professional literature in the Kazakh language by making teaching guidance by the faculty for the academic programme 5B074600 / 6M074600 - "Space-system engineering and technology".

▪ to ensure availability of scientific databases, electronic scientific journals and their accessibility for students.

▪ under the academic program 6D074000 - "Nanomaterials and nanotechnologies" to increase the necessary number of classrooms equipped with modern technical training facilities.

▪ under the academic program 6D074000 - "Nanomaterials and nanotechnologies" to ensure the consistency of work between the scientific laboratories.

7) Standard "Information Management and Reporting"

▪ In connection with the development of the space industry in the Republic of Kazakhstan and, accordingly, the demand for specialists in this field, the management of the academic program 5B074600 / 6M074600 - "Space-system engineering and technology", to make efforts to increase the dynamics of the students' population growth.

7) Standard "Public Awareness"

▪ to publish the detailed information on the faculty, including personal data, e-mail addresses, taught disciplines, research activities, awards and achievements under the academic program

5B074600 / 6M074600 - "Space-system engineering and technology", and ensure timely update of information and its compliance in three languages.

(V) PARAMETERS OF THE SPECIALIZED PROFILE (5B074600 - Space technology and technology, 6M074600 - Space technology and technologies)

№	№	Evaluation Criteria	Position of the educational organization			
			Strong	Satisfactory	Needs improving	Unsatisfactory
Standard "Educational Program Management"						
1	1	The HEI must have a published quality assurance policy.	+			
2	2	The policy of quality assurance ought to reflect the relation between research, teaching and learning.	+			
3	3	The HEI must demonstrate the development of a quality assurance culture.	+			
4	4	Quality assurance policy should also refer to any activity, conducted by the partners (outsourcing).		+		
5	5	The university demonstrates development of EP based on the analysis of its performance, real-positioning of HEI and its narrowness to meet the needs of the state, employers, stakeholders and students.		+		
6	6	The HEI determines mechanisms of formation and regular review of the EP's development plan, and monitoring of their implementation, assessment of the achievement of learning objectives, meeting the needs of students, employers and society, decision-making, aimed at continuous improvement of the educational program.		+		
7	7	The HEI must demonstrates the transparency of the processes of formation of the EP's development plan. The HEI provides the awareness of stakeholders on the con-tent of the mission and strategy and processes of their formation.		+		
8	8	The institution must involve representatives of stakeholder groups, including students, academic staff and employers in the formation of the EP's development plan.		+		
9	9	The university must demonstrate individuality and uniqueness of EP's development plan, its consistency	+			

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		with national development priorities and development strategy of the EO.				
10	10	The HEI must ensure compliance of the EP's development plan with available resources (including financial, information, human resources, material and technical base).	+			
11	11	In the EO all major business processes governing the implementation of the EP should be documented.		+		
12	12	The HEI must demonstrate an accurate designation of those responsible for business processes, a clear allocation of staff duties, and delimitation of responsibili-ties of collegial bodies that participated in the EP implementation.		+		
13	13	The institution systematically analyzes the information on the implementation of the educational program and conducts self-examination with all areas to assess the success of the development strategy implementation of the educational program through indicators such as the "productivity" and "efficiency."		+		
14	14	The EP management must demonstrate the evidence of transparency of the management system of the EP.	+			
15	15	The EP management must demonstrate successful functioning of in-house quality assurance system, including designing, management, monitoring and improvement of EP, making decisions on the basis of facts.	+			
The EP Management is expected to include:						
16	16	activity management through processes;	+			
17	17	mechanisms of planning, development and continuous improvement;	+			
18	18	risk assessment and identification the ways to reduce these risks;		+		
19	19	monitoring, including creation of reporting processes, which allows to determine the dynamics in the activities and the implementation of plans;	+			
20	20	analysis of the revealed discrepancies, the implementation of the corrective and preventive actions;		+		
21	21	analysis of the effectiveness of change;		+		
22	22	assessment of productivity and efficiency of activity of divisions and their interaction;		+		
23	23	interaction with the employers.	+			
24	24	The institution must involve representatives of stakeholder groups, including students, AS and employers as part of collegial bodies of education program management, and ensure their representation in decision-making in terms of the educational program management.	+			
25	25	The EP management must ensure measurement of the satisfaction degree of needs of AS, employees and students, and demonstrate the evidence of elimination		+		

		of defects detected within the measuring process.				
26	26	The EP management must demonstrate the evidence of the openness and accessibility of the management and administration to students, faculty and employers (office hours regarding personal questions, e-mail communication, etc.).	+			
27	27	The HEI must demonstrate that availability of the communication channel through which any interested person can make innovative proposals in order to improve the activities of the management of the EP. The university must demonstrate examples of the analysis of these proposals and the implementation of such proposals.		+		
		Subtotal	**13**	**14**	**0**	0
Standard "Development and Approval of the Educational Program"						
28	1	The university should define and document the procedures for the quality of the educational program development and evaluation, set the frequency, forms and methods of assessing the quality of educational programs.	+			
29	2	The university should establish a procedure for periodic review and monitoring of educational programs.	+			
30	3	The institution must determine the requirements for the educational programs according to their specificities, levels of education, as well as the technologies used, including remote ones.		+		
31	4	The university must demonstrate that developed educational program graduate models, including knowledge, skills and professional competence.	+			
32	5	The institution must demonstrate the participation of the faculty, employers and students in the development of educational programs, ensuring their quality, to provide evidence that employers are typical representatives of employers.	+			
33	6	The institution must provide an external examination of the educational program and its approval by the collective bodies.		+		
34	7	EP management must clearly define the EP objectives.	+			
35	8	EP management should demonstrate the logic of curricula and training programs compilation, in particular the reasons for the inclusion of a list of subjects in the curriculum, the reasons for assigning the post or prerequisites.	+			
36	9	EP management should ensure that the names and content of the disciplines are relevant to areas of study in science / society, etc.		+		
37	10	The institution should determine the content, scope, logic of constructing student's individual educational trajectory.		+		

No	No	Criteria				
38	11	EP management must demonstrate the continuity of the content of educational programs at different levels, including the logic of the relationship of academic disciplines, their consistency and continuity.		+		
39	12	EP management must provide an annual revision of the content of curricula and training programs, taking into account changes in the market, employers', students' and teachers' needs.		+		
40	13	EP management must demonstrate the impact of disciplines on the formation of students' professional competence.	+			
41	14	The complexity of the EP must be clearly defined in the Kazakhstani credits and ECTS.	+			
42	15	The structure of the EP must provide a variety of activities, the contents of which should contribute to the formation of professional competence of students.		+		
43	16	The institution must demonstrate the effectiveness of the organization and conduct of professional internship.		+		
44	17	The institution must ensure that the content of academic disciplines to the planned learning outcomes. The list of subjects and content must be available to the students.		+		
45	18	An important factor is the harmonization of the content of educational programs with similar educational programs of leading international and Kazakhstani educational organizations.	+			
46	19	An important factor is the presence of joint educational programs with foreign educational institutions.		+		
47	20	An important factor is the cooperation and exchange of experience with other educational organizations implementing similar educational programs.	+			
48	21	EP management must ensure that research elements are included in the content of EP.	+			
		Subtotal	**11**	**10**	**0**	**0**
Standard "Student-Centered Learning, Teaching and Progress Evaluation"						
49	1	EP management must provide equal opportunities to all students, regardless of the language of instruction on the formation of individual educational program aimed at the formation of professional competence.		+		
50	2	EP management should ensure the harmonious development of students in view of intellectual development and individual characteristics.	+			
51	3	EP management must ensure the implementation and effectiveness of active and innovative learning methods.	+			
52	4	EP management must ensure its own developments in the field of academic disciplines teaching methodology.		+	+	

№	№	Criteria				
53	5	EP management must demonstrate the existence of feedback system for the use of various methods of learning and knowledge control.		+		
54	6	EP management must monitor the student's independent work control and the adequate evaluation of its results in the process of implementation of the educational program.		+		
55	7	EP management must monitor the satisfaction of students by passing the professional internship.	+			
56	8	EP management must demonstrate decision making process on the basis of the results of students' feedback and the assessment of their satisfaction.		+		
57	9	EP management must prove the existence of a monitoring system for the improvement of the student on the educational trajectory and achievements of the learners.	+			
58	10	EP management must ensure the availability and efficiency of the mechanism of objective assessment of the learning outcomes of the collective appeal mechanism, transparent criteria and assessment tools.	+			
59	11	EP management must ensure that the level of students' knowledge assessment matches the planned learning outcomes and objectives of the program on the criteria and evaluation methods.	+			
60	12	EP management must provide the conditions for inclusive education.		+		
		Subtotal	**6**	**5**	**1**	**0**
Standard "Students"						
61	1	Management of EP should demonstrate policy of EP formation of the students' contingent starting from admission to graduation and ensure the transparency of the procedures. The procedures governing the cycle of the students study period must be approved and published.		+		
62	2	Admission and enrollment in the educational program must be accompanied by an introductory course that contains information about the organization of education and specific education program.		+		
63	3	Management of EP should foresee the special adaptation and support program for foreign students.		+		
64	4	Management of the EP must demonstrate the conformity to the actions of the Lisbon Recognition Convention.		+		
65	5	The institution should cooperate with other organizations and national education centers "European Network of National Information Centers on Academic Recognition and Mobility / National Academic Recognition Information Centres" in order to provide a comparable recognition of qualifications.		+		
66	6	Management of the educational program must demonstrate the existence and effectiveness of the		+		

№	№	Criteria				
		mechanism for the recognition of the results of academic mobility of students, as well as results of additional, formal and informal learning.				
67	7	EP management must demonstrate the effectiveness of the monitoring of academic achievements of students.		+		
68	8	EP management must demonstrate awareness of the main roles (professional, social) of the students based on learning outcomes.	+			
69	9	EP management must contribute to professional certification of students.	+			
70	10	EP management must ensure the involvement of students in research work and consulting.	+			
71	11	The university and EP management must provide an opportunity for internal and external mobility of students and assist them in obtaining external grants for training.			+	
72	12	The university must provide graduates with the documents confirming the qualification, including learning outcomes achieved, as well as the context, content and status of education and a certificate of its completion.		+		
73	13	EP management must provide graduates with employment measures, the systematic monitoring of employment of graduates, their career development and improvement of the efficiency of alumni associations.	+			
74	14	EP management must enable students to exchange and expression of their opinions – for example, through the Internet forum and student organizations.	+			
75	15	EP management must demonstrate the operation of the feedback system support for students, including the prompt submission of information on the results of assessment of students.		+		
76	16	EP management must demonstrate the existence and effectiveness of the mechanism of support for gifted students.		+		
		Subtotal	**5**	**10**	**1**	
Standard "Academic Staff"						
77	1	The University must have an objective and transparent staff policy, including employment, professional development, ensuring the professional competence of all staff.	+			
78	2	The administration of educational program must demonstrate the compliance of HR capacity of academic staff with the eligibility requirements, levels and the uniqueness of educational program on the basis of the recruiting system.	+			
79	3	The administration of EP (educational program) must demonstrate the awareness of liability for its employees and their favorable working environment.		+		
80	4	The administration of educational program must demonstrate the changing role of teacher in the		+		

		context of transition to student-centered education.				
81	5	The University must provide the public with the access to information about academic staff, including academic staff directories and posting questionnaires on the university website.			+	
82	6	The administration of educational program must provide the monitoring of academic staff activity, a systematic assessment of the competence of teachers, a comprehensive assessment of the quality of teaching, including the assessment of satisfaction of teachers and students.		+		
83	7	The administration of EP must provide the completeness and adequacy of individual planning work of academic staff for all activities, performance monitoring and the effectiveness of individual plans, and to demonstrate the evidence of teacher performance of all projected workload.		+		
84	8	The university administration must show the support for research activities of academic staff, and provide a link between research and teaching.	+			
85	9	The university administration must show the existence of professional and personal development of academic and administrative staff, as well as the compliance of professional and personal development of faculty with strategy development.	+			
86	10	The administration of EP must involve experienced experts , as well as outstanding scientists, public and political figures.	+			
87	11	The Administration of EP must ensure the concerted action on the professional development of young teachers.			+	
88	12	The administration of EP must ensure the system of professional and personal development of faculty and staff.		+		
89	13	The Administration of EP must ensure monitoring of academic staff satisfaction.		+		
90	14	The Administration of EP must involve the academic staff into the practical activity in the field of specialization on a permanent basis.	+			
91	15	The Administration of EP must demonstrate IT-competence of academic staff, the conditions of motivation for the use of innovative methods and forms of education, information and communication technologies in the educational process.	+			
92	16	An important factor is the development of academic mobility of teachers, to attract the best foreign and local lecturers and conduct joint researches.			+	
93	17	An important factor is the participation of academic staff in social life (academic staff's role in the system of education, in the development of science, region, creating a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		

94	18	The administration of EP demonstrates the compliance of the priorities of consulting, research work, implemented academic staff with the topical issues of the economy, the priorities of government development, the state national policy in the sphere of education, science and innovation development.	+			
		Subtotal	**8**	**7**	**3**	
Standard "Educational Resources and Student Support System"						
95	1	The university must demonstrate the sufficiency of material, financial and human resources.		+		
96	2	The university must demonstrate the effectiveness of the students support services and the availability of support procedures.	+			
97	3	The university must identify the support needs of different groups and categories of students.		+		
98	4	The university must ensure the existence and effective functioning of information and feedback system focused on students, staff and others.		+		
99	5	The university must demonstrate the effectiveness of the regular analysis of the adequacy of resources and support systems for students, including the competence of the involved staff.	+			
		The university must create learning environment that reflects the specifics of the educational programs, which includes:				
100	6	technological support of students and the teaching staff in accordance with EPs (e.g. on-line education, database, data analysis program);		+		
101	7	personalized interactive resources (with the access in extracurricular time), including teaching materials and assignments, ensuring the possibility of self-assessment of students' knowledge through remote access to the university portal;		+		
102	8	interactive academic consultations to help students plan and develop the educational programs, including personified interactive resources;		+		
103	9	professional guidance, assistance in choosing and achieving career paths;	+			
104	10	the sufficient number of classrooms, equipped with modern technological means of teaching, educational and research laboratories, educational and training grounds, technoparks with modern equipment, complied with EPs, sanitary-epidemiological norms and requirements;	+			
105	11	the sufficient number of computer classes, reading halls, multimedia, language and scientific-methodical classrooms, the number of seats in them;		+		
106	12	the book fund, including the fund of educational, methodical and scientific literature on general disciplines, basic courses and majors in print, electronic versions, periodicals in the context of learning languages;			+	

107	13	structured information in the context of disciplines. For example, presentation materials, videos, lecture notes, compulsory and additional literature, practical tasks, etc.;	+			
108	14	the availability of scientific databases and electronic scientific journals;			+	
109	15	the availability of electronic versions of published journals;	+			
110	16	plagiarism expertise of research work results, graduation papers, dissertations;			+	
111	17	free WI-FI and access to educational online resources, throughout the territory of the institution.		+		
112	18	The administration of EP must ensure the copyright compliance when publishing educational and methodical materials in open access.		+		
113	19	Leaning equipment and programs must comply with modern requirements.	+			
		Subtotal	**7**	**9**	**3**	
Standard «Information Management»						
114	1	The university should provide proper functioning of information collection system, information analysis and management on the basis of up-to-date information technologies and software.		+		
115	2	The university decides on the amount and structure of periodically updated information and the personnel responsible for reliability and timelines of the information in accordance with the university development strategy.		+		
116	3	The university provides up-to-date, reliable and full information and its storage.		+		
117	4	Educational program leaders should show the evidence of making decisions based on the analysis of the facts.	+			
118	5	The system of information collection, its analysis and management should be used for maintaining the quality of the educational program.		+		
		The information collected and analyzed by educational organizations should take into consideration the following:				
119	6	dynamics of student contingent in the context of its forms and types;		+		
120	7	students' progress, achievements and dismissals;	+			
121	8	students' satisfaction with the educational program and quality of education at university;	+			
122	9	availability of the resources and support system for students;		+		
123	10	employment and career advancement of the alumni.		+		
124	11	Leaders of the educational program should show the ability of the information analysis for revealing and predicting risks.		+		
125	12	The university should provide effective functioning of the informing and feedback systems for students,		+		

		staff and stakeholders.				
126	13	Students, employees and teachers must confirm their consent to personal data processing.	+			
127	14	Involvement of students, staff and the faculty in information collection, its analysis and making decisions on its basis is a very important factor.	+			
		Subtotal	**5**	**9**	**0**	
Standard «Informing of the Public»						
128	1	The university should publish the information about its activity in general and educational programs, in particular. The information should be clear, concise, objective, up-to-date and comprehensible.		+		
129	2	Leaders of the EP should use various means of informing the general public and stakeholders, information networks, in particular.		+		
		The university should demonstrate the information that characterizes the university in general and educational programs, in particular, on the web-site, and effectiveness of the web-site for the improving the process of education. The web-site should have the following information:				
130	3	full and objective information about educational programs, including existing student support systems, main learning outcomes and qualifications;		+		
131	4	adequate and objective information about the faculty, personal sites, in particular;			+	
132	5	transparent information about complaint handling and virtual complaint book;	+			
133	6	information about cooperation with other scientific / consulting organizations and educational organizations suggesting the same educational programs;		+		
134	7	information and links to the results of the external evaluation.		+		
135	8	Participation of the EP in ranking and ratings is the important factor.		+		
		Subtotal	**1**	**6**	**1**	**0**
Standard "Standards for individual EP"						
TECHNICAL SCIENCES AND TECHNOLOGIES						
EPs in the fields of "Technical sciences and technologies" such as "Mechanical engineering" etc. are obliged to comply with the following requirements:						
136	1	EP is obliged to include subjects and activities aimed at obtaining practical experience and skills for the whole profession and majors in particular in order to get students introduced to professional environment and current issues in the field of their specialization as well as for the acquisition of skills through theoretical training education program.: - excursions to enterprises in the field of specialization (plants, workshops, research institutes, laboratories, etc.)	+			

№	№	Evaluation Criteria	Strong	Satisfactory	Needs improving	Unsatisfactory
137	2	The teaching staff must consist of at least one full-time teacher who has a long experience of working at enterprises in the field of specialization.;	+			
138	3	The contents of all the disciplines within the EP must be based and include a clear correlation with the contents of fundamental natural sciences such as Mathematics, Chemistry, Physics;	+			
139	4	The EP management should provide measures to strengthen practical training in the field of specialization;	+			
140	5	The management of the EP should ensure the training of students in the field of application of modern information technologies.	+			
		Subtotal	5	0	0	0
		SUBTOTAL IN GENERAL	61	70	9	

PARAMETERS OF THE SPECIALIZED PROFILE (6D074000 - Nanomaterials and nanotechnologies (by areas of application)

№	№	Evaluation Criteria	Position of the educational organization			
			Strong	Satisfactory	Needs improving	Unsatisfactory
Standard "Educational Program Management"						
1	1	The HEI must have a published quality assurance policy.	+			
2	2	The policy of quality assurance ought to reflect the relation between research, teaching and learning.	+			
3	3	The HEI must demonstrate the development of a quality assurance culture.	+			
4	4	Quality assurance policy should also refer to any activity, conducted by the partners (outsourcing).	+			
5	5	The university demonstrates development of EP based on the analysis of its performance, real-positioning of HEI and its narrowness to meet the	+			

		needs of the state, employers, stakeholders and students.				
6	6	The HEI determines mechanisms of formation and regular review of the EP's development plan, and monitoring of their implementation, assessment of the achievement of learning objectives, meeting the needs of students, employers and society, decision-making, aimed at continuous improvement of the educational program.	+			
7	7	The HEI must demonstrates the transparency of the processes of formation of the EP's development plan. The HEI provides the awareness of stakeholders on the con-tent of the mission and strategy and processes of their formation.		+		
8	8	The institution must involve representatives of stakeholder groups, including students, academic staff and employers in the formation of the EP's development plan.			+	
9	9	The university must demonstrate individuality and uniqueness of EP's development plan, its consistency with national development priorities and development strategy of the EO.		+		
10	10	The HEI must ensure compliance of the EP's development plan with available resources (including financial, information, human resources, material and technical base).	+			
11	11	In the EO all major business processes governing the implementation of the EP should be documented.	+			
12	12	The HEI must demonstrate an accurate designation of those responsible for business processes, a clear allocation of staff duties, and delimitation of responsibili-ties of collegial bodies that participated in the EP implementation.		+		
13	13	The institution systematically analyzes the information on the implementation of the educational program and conducts self-examination with all areas to assess the success of the development strategy implementation of the educational program through indicators such as the "productivity" and "efficiency."		+		
14	14	The EP management must demonstrate the evidence of transparency of the management system of the EP.	+			
15	15	The EP management must demonstrate successful functioning of in-house quality assurance system, including designing, management, monitoring and improvement of EP, making decisions on the basis of facts.		+		
The EP Management is expected to include:						
16	16	activity management through processes;	+			
17	17	mechanisms of planning, development and continuous improvement;		+		

18	18	risk assessment and identification the ways to reduce these risks;			+	
19	19	monitoring, including creation of reporting processes, which allows to determine the dynamics in the activities and the implementation of plans;		+		
20	20	analysis of the revealed discrepancies, the implementation of the corrective and preventive actions;		+		
21	21	analysis of the effectiveness of change;	+			
22	22	assessment of productivity and efficiency of activity of divisions and their interaction;		+		
23	23	interaction with the employers.		+		
24	24	The institution must involve representatives of stakeholder groups, including students, AS and employers as part of collegial bodies of education program management, and ensure their representation in decision-making in terms of the educational program management.			+	
25	25	The EP management must ensure measurement of the satisfaction degree of needs of AS, employees and students, and demonstrate the evidence of elimination of defects detected within the measuring process.		+		
26	26	The EP management must demonstrate the evidence of the openness and accessibility of the management and administration to students, faculty and employers (office hours regarding personal questions, e-mail communication, etc.).	+			
27	27	The HEI must demonstrate that availability of the communication channel through which any interested person can make innovative proposals in order to improve the activities of the management of the EP. The university must demonstrate examples of the analysis of these proposals and the implementation of such proposals.		+		
		Subtotal	**12**	**12**	**3**	0
Standard "Development and Approval of the Educational Program"						
28	1	The university should define and document the procedures for the quality of the educational program development and evaluation, set the frequency, forms and methods of assessing the quality of educational programs.		+		
29	2	The university should establish a procedure for periodic review and monitoring of educational programs.	+			
30	3	The institution must determine the requirements for the educational programs according to their specificities, levels of education, as well as the technologies used, including remote ones.		+		

31	4	The university must demonstrate that developed educational program graduate models, including knowledge, skills and professional competence.	+			
32	5	The institution must demonstrate the participation of the faculty, employers and students in the development of educational programs, ensuring their quality, to provide evidence that employers are typical representatives of employers.		+		
33	6	The institution must provide an external examination of the educational program and its approval by the collective bodies.		+		
34	7	EP management must clearly define the EP objectives.	+			
35	8	EP management should demonstrate the logic of curricula and training programs compilation, in particular the reasons for the inclusion of a list of subjects in the curriculum, the reasons for assigning the post or prerequisites.		+		
36	9	EP management should ensure that the names and content of the disciplines are relevant to areas of study in science / society, etc.	+			
37	10	The institution should determine the content, scope, logic of constructing student's individual educational trajectory.			+	
38	11	EP management must demonstrate the continuity of the content of educational programs at different levels, including the logic of the relationship of academic disciplines, their consistency and continuity.			+	
39	12	EP management must provide an annual revision of the content of curricula and training programs, taking into account changes in the market, employers', students' and teachers' needs.		+		
40	13	EP management must demonstrate the impact of disciplines on the formation of students' professional competence.		+		
41	14	The complexity of the EP must be clearly defined in the Kazakhstani credits and ECTS.	+			
42	15	The structure of the EP must provide a variety of activities, the contents of which should contribute to the formation of professional competence of students.	+			
43	16	The institution must demonstrate the effectiveness of the organization and conduct of professional internship.		+		
44	17	The institution must ensure that the content of academic disciplines to the planned learning outcomes. The list of subjects and content must be available to the students.		+		
45	18	An important factor is the harmonization of the content of educational programs with similar educational programs of leading international and Kazakhstani educational organizations.		+		

46	19	An important factor is the presence of joint educational programs with foreign educational institutions.			+	
47	20	An important factor is the cooperation and exchange of experience with other educational organizations implementing similar educational programs.		+		
48	21	EP management must ensure that research elements are included in the content of EP.		+		
		Subtotal	**6**	**12**	**3**	**0**
Standard "Student-Centered Learning, Teaching and Progress Evaluation"						
49	1	EP management must provide equal opportunities to all students, regardless of the language of instruction on the formation of individual educational program aimed at the formation of professional competence.	+			
50	2	EP management should ensure the harmonious development of students in view of intellectual development and individual characteristics.		+		
51	3	EP management must ensure the implementation and effectiveness of active and innovative learning methods.		+		
52	4	EP management must ensure its own developments in the field of academic disciplines teaching methodology.			+	
53	5	EP management must demonstrate the existence of feedback system for the use of various methods of learning and knowledge control.	+			
54	6	EP management must monitor the student's independent work control and the adequate evaluation of its results in the process of implementation of the educational program.	+			
55	7	EP management must monitor the satisfaction of students by passing the professional internship.		+		
56	8	EP management must demonstrate decision making process on the basis of the results of students' feedback and the assessment of their satisfaction.		+		
57	9	EP management must prove the existence of a monitoring system for the improvement of the student on the educational trajectory and achievements of the learners.	+			
58	10	EP management must ensure the availability and efficiency of the mechanism of objective assessment of the learning outcomes of the collective appeal mechanism, transparent criteria and assessment tools.		+		
59	11	EP management must ensure that the level of students' knowledge assessment matches the planned learning outcomes and objectives of the program on the criteria and evaluation methods.	+			
60	12	EP management must provide the conditions for inclusive education.	+			
		Subtotal	**6**	**5**	**1**	**0**

		Standard "Students"				
61	1	Management of EP should demonstrate policy of EP formation of the students' contingent starting from admission to graduation and ensure the transparency of the procedures. The procedures governing the cycle of the students study period must be approved and published.	+			
62	2	Admission and enrollment in the educational program must be accompanied by an introductory course that contains information about the organization of education and specific education program.		+		
63	3	Management of EP should foresee the special adaptation and support program for foreign students.		+		
64	4	Management of the EP must demonstrate the conformity to the actions of the Lisbon Recognition Convention.	+			
65	5	The institution should cooperate with other organizations and national education centers "European Network of National Information Centers on Academic Recognition and Mobility / National Academic Recognition Information Centres" in order to provide a comparable recognition of qualifications.	+			
66	6	Management of the educational program must demonstrate the existence and effectiveness of the mechanism for the recognition of the results of academic mobility of students, as well as results of additional, formal and informal learning.		+		
67	7	EP management must demonstrate the effectiveness of the monitoring of academic achievements of students.		+		
68	8	EP management must demonstrate awareness of the main roles (professional, social) of the students based on learning outcomes.	+			
69	9	EP management must contribute to professional certification of students.	+			
70	10	EP management must ensure the involvement of students in research work and consulting.	+			
71	11	The university and EP management must provide an opportunity for internal and external mobility of students and assist them in obtaining external grants for training.		+		
72	12	The university must provide graduates with the documents confirming the qualification, including learning outcomes achieved, as well as the context, content and status of education and a certificate of its completion.	+			
73	13	EP management must provide graduates with employment measures, the systematic monitoring of employment of graduates, their career development and improvement of the efficiency of alumni associations.	+			

74	14	EP management must enable students to exchange and expression of their opinions – for example, through the Internet forum and student organizations.		+		
75	15	EP management must demonstrate the operation of the feedback system support for students, including the prompt submission of information on the results of assessment of students.	+			
76	16	EP management must demonstrate the existence and effectiveness of the mechanism of support for gifted students.	+			
		Subtotal	**10**	**6**	**0**	
Standard "Academic Staff"						
77	1	The University must have an objective and transparent staff policy, including employment, professional development, ensuring the professional competence of all staff.	+			
78	2	The administration of educational program must demonstrate the compliance of HR capacity of academic staff with the eligibility requirements, levels and the uniqueness of educational program on the basis of the recruiting system.	+			
79	3	The administration of EP (educational program) must demonstrate the awareness of liability for its employees and their favorable working environment.		+		
80	4	The administration of educational program must demonstrate the changing role of teacher in the context of transition to student-centered education.		+		
81	5	The University must provide the public with the access to information about academic staff, including academic staff directories and posting questionnaires on the university website.	+			
82	6	The administration of educational program must provide the monitoring of academic staff activity, a systematic assessment of the competence of teachers, a comprehensive assessment of the quality of teaching, including the assessment of satisfaction of teachers and students.	+			
83	7	The administration of EP must provide the completeness and adequacy of individual planning work of academic staff for all activities, performance monitoring and the effectiveness of individual plans, and to demonstrate the evidence of teacher performance of all projected workload.		+		
84	8	The university administration must show the support for research activities of academic staff, and provide a link between research and teaching.		+		
85	9	The university administration must show the existence of professional and personal development of academic and administrative staff, as well as the compliance of professional and personal development of faculty with strategy development.		+		
86	10	The administration of EP must involve experienced experts , as well as outstanding scientists, public and		+		

		political figures.				
87	11	The Administration of EP must ensure the concerted action on the professional development of young teachers.			+	
88	12	The administration of EP must ensure the system of professional and personal development of faculty and staff.			+	
89	13	The Administration of EP must ensure monitoring of academic staff satisfaction.		+		
90	14	The Administration of EP must involve the academic staff into the practical activity in the field of specialization on a permanent basis.	+			
91	15	The Administration of EP must demonstrate IT-competence of academic staff, the conditions of motivation for the use of innovative methods and forms of education, information and communication technologies in the educational process.		+		
92	16	An important factor is the development of academic mobility of teachers, to attract the best foreign and local lecturers and conduct joint researches.			+	
93	17	An important factor is the participation of academic staff in social life (academic staff's role in the system of education, in the development of science, region, creating a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).	+			
94	18	The administration of EP demonstrates the compliance of the priorities of consulting, research work, implemented academic staff with the topical issues of the economy, the priorities of government development, the state national policy in the sphere of education, science and innovation development.	+			
		Subtotal	**7**	**8**	**3**	
Standard "Educational Resources and Student Support System"						
95	1	The university must demonstrate the sufficiency of material, financial and human resources.	+			
96	2	The university must demonstrate the effectiveness of the students support services and the availability of support procedures.		+		
97	3	The university must identify the support needs of different groups and categories of students.	+			
98	4	The university must ensure the existence and effective functioning of information and feedback system focused on students, staff and others.		+		
99	5	The university must demonstrate the effectiveness of the regular analysis of the adequacy of resources and support systems for students, including the competence of the involved staff.		+		
		The university must create learning environment that reflects the specifics of the educational programs, which includes:				

100	6	technological support of students and the teaching staff in accordance with EPs (e.g. on-line education, database, data analysis program);		+		
101	7	personalized interactive resources (with the access in extracurricular time), including teaching materials and assignments, ensuring the possibility of self-assessment of students' knowledge through remote access to the university portal;		+		
102	8	interactive academic consultations to help students plan and develop the educational programs, including personified interactive resources;	+			
103	9	professional guidance, assistance in choosing and achieving career paths;		+		
104	10	the sufficient number of classrooms, equipped with modern technological means of teaching, educational and research laboratories, educational and training grounds, technoparks with modern equipment, complied with EPs, sanitary-epidemiological norms and requirements;			+	
105	11	the sufficient number of computer classes, reading halls, multimedia, language and scientific-methodical classrooms, the number of seats in them;		+		
106	12	the book fund, including the fund of educational, methodical and scientific literature on general disciplines, basic courses and majors in print, electronic versions, periodicals in the context of learning languages;		+		
107	13	structured information in the context of disciplines. For example, presentation materials, videos, lecture notes, compulsory and additional literature, practical tasks, etc.;		+		
108	14	the availability of scientific databases and electronic scientific journals;			+	
109	15	the availability of electronic versions of published journals;	+			
110	16	plagiarism expertise of research work results, graduation papers, dissertations;	+			
111	17	free WI-FI and access to educational online resources, throughout the territory of the institution.		+		
112	18	The administration of EP must ensure the copyright compliance when publishing educational and methodical materials in open access.		+		
113	19	Leaning equipment and programs must comply with modern requirements.		+		
		Subtotal	**5**	**12**	**2**	
Standard «Information Management»						
114	1	The university should provide proper functioning of information collection system, information analysis and management on the basis of up-to-date information technologies and software.		+		
115	2	The university decides on the amount and structure of periodically updated information and the personnel responsible for reliability and timelines of		+		

		the information in accordance with the university development strategy.				
116	3	The university provides up-to-date, reliable and full information and its storage.	+			
117	4	Educational program leaders should show the evidence of making decisions based on the analysis of the facts.	+			
118	5	The system of information collection, its analysis and management should be used for maintaining the quality of the educational program.		+		
		The information collected and analyzed by educational organizations should take into consideration the following:				
119	6	dynamics of student contingent in the context of its forms and types;	+			
120	7	students' progress, achievements and dismissals;	+			
121	8	students' satisfaction with the educational program and quality of education at university;		+		
122	9	availability of the resources and support system for students;	+			
123	10	employment and career advancement of the alumni.	+			
124	11	Leaders of the educational program should show the ability of the information analysis for revealing and predicting risks.			+	
125	12	The university should provide effective functioning of the informing and feedback systems for students, staff and stakeholders.		+		
126	13	Students, employees and teachers must confirm their consent to personal data processing.	+			
127	14	Involvement of students, staff and the faculty in information collection, its analysis and making decisions on its basis is a very important factor.		+		
		Subtotal	**8**	**5**	**1**	
Standard «Informing of the Public»						
128	1	The university should publish the information about its activity in general and educational programs, in particular. The information should be clear, concise, objective, up-to-date and comprehensible.	+			
129	2	Leaders of the EP should use various means of informing the general public and stakeholders, information networks, in particular.		+		
		The university should demonstrate the information that characterizes the university in general and educational programs, in particular, on the web-site, and effectiveness of the web-site for the improving the process of education. The web-site should have the following information:				
130	3	full and objective information about educational programs, including existing student support systems, main learning outcomes and qualifications;	+			

131	4	adequate and objective information about the faculty, personal sites, in particular;		+		
132	5	transparent information about complaint handling and virtual complaint book;		+		
133	6	information about cooperation with other scientific / consulting organizations and educational organizations suggesting the same educational programs;		+		
134	7	information and links to the results of the external evaluation.	+			
135	8	Participation of the EP in ranking and ratings is the important factor.		+		
		Subtotal	**3**	**5**	**0**	**0**
Standard "Standards for individual EP"						
TECHNICAL SCIENCES AND TECHNOLOGIES						
EPs in the fields of "Technical sciences and technologies" such as "Mechanical engineering" etc. are obliged to comply with the following requirements:						
136	1	EP is obliged to include subjects and activities aimed at obtaining practical experience and skills for the whole profession and majors in particular in order to get students introduced to professional environment and current issues in the field of their specialization as well as for the acquisition of skills through theoretical training education program.: - excursions to enterprises in the field of specialization (plants, workshops, research institutes, laboratories, etc.) - conducting lessons and seminars at the enterprise of specialization; - conducting seminars to solve practical tasks relevant to enterprises in the field of specialization, etc.	+			
137	2	The teaching staff must consist of at least one full-time teacher who has a long experience of working at enterprises in the field of specialization.;	+			
138	3	The contents of all the disciplines within the EP must be based and include a clear correlation with the contents of fundamental natural sciences such as Mathematics, Chemistry, Physics;	+			
139	4	The EP management should provide measures to strengthen practical training in the field of specialization;	+			
140	5	The management of the EP should ensure the training of students in the field of application of modern information technologies.	+			
		Subtotal	**5**	**0**	**0**	**0**
		SUBTOTAL IN GENERAL	**60**	**67**	**13**	