Provision on Scientific and Technical Council

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Approved by Chairman of the Management Board - Rector of NPJSC "Abylkas Saginov Karaganda Technical University" M.K. Ibatov Decision of the Academic Council No.___, dated "___"_

PROVISION

ON SCIENTIFIC AND TECHNICAL COUNCIL

Internal Activity Provision III-13-2022

Developed by: Chief expert of S&ID

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V.S. Moisseyev

Karaganda

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1 Field of application

1.1 This Provision establishes general requirements for organizing, conducting and appropriate planning an activity of the Scientific and Technical Council of NPJSC "Abylkas Saginov Karaganda Technical University" (hereinafter referred to as STC).

This Provision is included in the documents of quality management system (QMS).

2 Normative references

This Provision uses references to the following normative documents:

- Standard rules of the activities of educational organizations, implementing educational programs of higher and (or) postgraduate education, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated October 30, 2018 No. 595 [1];
- State compulsory standard of postgraduate education (Doctoral program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 [2];
- State compulsory standard of postgraduate education (Master's degree program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 [3];
- State compulsory standard of higher education (Bachelor's degree program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 [4];
- Rules of awarding degrees, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2011 No. 127 [5];
- Standard Provision on the Dissertation Council, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2011 No. 126 [6];
- Civil Code of the Republic of Kazakhstan, adopted by the Resolution of the Supreme Council of the Republic of Kazakhstan, dated December 27, 1994 No. 269-XII [7];
- Labor Code of the Republic of Kazakhstan, dated November 23, 2015 No. 414-V ZRK [8];
- State program of the education and science development of the Republic of Kazakhstan for 2020-2025, approved by the decree of the Government of the Republic of Kazakhstan, dated December 27, 2019 No. 988 [9];
- State program of industrial and innovative development of the Republic of Kazakhstan for 2020-2025, approved by the decree of the Government of the Republic of Kazakhstan, dated December 31, 2019 No. 1050 [10];
- GOST 7.32-2017 Interstate standard. System of standards on information, librarianship and publishing. Research report. Structure and rules of drawing up [11];
 - Rules of state recording of scientific, scientific and technical projects, and pro-

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grams, financed from the state budget, and reports on their execution, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2015 No. 149 [12].

3 Terms, definitions and abbreviations

The following terms and definitions are applied in this Provision, according to the legislative and regulatory framework:

Science is a sphere of human activity, the function of which is studying the laws of nature, society and thinking, the formation and theoretical systematization of objective knowledge about reality for the rational usage of natural resources and effective management of society;

Scientific activity is an activity, aimed at studying the surrounding reality in order to identify the properties, features and patterns, being inherent in the studied objects, phenomena (processes), and the usage of knowledge, gained in practice;

Scientific and technical activities are activities, aimed at obtaining and applying new knowledge in all areas of science, technology and production to solve technological, design, economic and socio-political and other problems, ensuring the functioning of science, technology and production as an unified system, including the development of normative and technical documentation, required for conducting these studies;

Research activity is a type of activity, associated with studying the surrounding reality in order to identify the features, patterns and laws, which are inherent in the studied objects, processes and the usage of knowledge, gained in practice;

Innovation activity is an activity, aimed at introducing new ideas, scientific knowledge, technologies of determination of the level of validity of decisions, made on the most important issues of scientific and technical progress;

Research work is a work, related to scientific research, conducting research, experiments in order to increase existing knowledge and obtain new knowledge, to test scientific hypotheses, to determine patterns of the development of nature and society, scientific generalization, scientific substantiation of projects;

Development works are a set of works, performed when developing or modernizing products, development of the design and technological documentation for prototypes, production and test of the prototypes and useful models;

Fundamental research is theoretical and (or) experimental research, aimed at obtaining new scientific knowledge about the basic laws of development of the nature, society, person and their relationship;

Applied research is an activity, aimed at obtaining and applying new knowledge to achieve practical goals and solve specific problems;

Strategic research is fundamental or applied research, aimed at solving strategic problems;

Scientific research is applied, fundamental, strategic scientific research, carried out by subjects of the scientific and (or) scientific and technical activities within the frame-

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work of research works, development works and technological works by means of appropriate scientific methods and tools in order to achieve the results of scientific and (or) scientific and technical activity;

Scientific and methodological work is a type of activity, based on the achievements of science and advanced pedagogical experience and aimed at improvement of functioning and development of the continuous education system;

Experimental developments are based on knowledge, acquired as a result of conducting scientific research or on the basis of practical experience and are aimed at preserving human life and health, creating new materials, products, processes, devices, services, systems or methods and their further improvement;

Pilot production is a structural division of scientific organizations, higher educational institutions or a legal entity, the main activity of which is the production and testing prototypes and useful models, new products and technological processes;

The result of scientific and (or) scientific and technical activities:

- new knowledge or solutions, obtained in the course of conducting scientific and (or) scientific and technical activities and recorded on any information medium, the introduction of scientific developments and technologies into production, as well as models, mock-ups, samples of new products, materials and substances;
- an objectified result of the scientific and (or) scientific and technical activity, containing new knowledge or new solutions, recorded on any information media and intended for use;

The result of intellectual activity in the field of commercialization of the results of scientific and (or) scientific and technical activities is inventions, useful models, industrial models, selection achievements, topology of integrated circuits, programs for electronic computers and databases, and other results of intellectual activity, obtained as a result of the scientific and (or) scientific and technical activities;

Commercialization of the results of scientific and (or) scientific and technical activities is an activity, related to practical application of the results of scientific and (or) scientific and technical activities, including the results of intellectual activities in order to bring new or improved goods, processes and services to the market, aimed at deriving income;

Introduction (use) of the results of scientific and (or) scientific and technical activities is an activity, aimed at implementing the final stage of scientific and production cycle of mastering new products or introducing new technology;

Intellectual property is an exclusive right of the citizen or legal entity for the results of intellectual creative activity, obtained as a result of research, development and technological works, and means of individualization of the participants of civil circulation, goods, works or services;

Report on scientific and (or) scientific and technical activities:

- a document, containing information about the implementation of scientific and technical work, scientific, scientific and technical, experimental design, marketing research, as well as information about the advisability of further carrying out planned

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works or about the result of a completed scientific, scientific and technical project and program;

- a scientific and technical document, that contains systematized data on research work, describes the state of a scientific and technical problem, the process and / or results of scientific research;

Scientific and technical information is information, obtained in the course of scientific, scientific and technical, innovative and production activities, containing information about national and foreign achievements of science, engineering and technologies;

State policy in the field of science and scientific-technical activities is an integral part of socio-economic policy, which expresses the state's attitude to scientific and (or) scientific and technical activities, determines the main priorities, goals, directions, principles, forms and methods of activities of the various organizations in the field of science and technology, the implementation of scientific and technical achievements, the creation of new technologies, including for the purposes of ensuring national security;

A sectoral authorized body is a state body that implements state policy in the field of science and scientific-technical activities and coordinates the works of conducting scientific research in the respective branch;

State order is an order of the authorized body and (or) sectoral authorized bodies to a subject of the scientific and (or) scientific and technical activities on the basis of an agreement for the performance of research works, financed from the state budget in the form of basic, grant and program-targeted financing;

University is NPJSC "Abylkas Saginov Karaganda Technical University";

Research university is a university that implements a five-year development program, approved by the Government of the Republic of Kazakhstan and uses the results of its activities to integrate education and science, to generate and transfer new knowledge and technologies;

An innovation and educational consortium is a voluntary equal association, based on the agreement of joint activities, in which higher educational institutions, scientific organizations and other legal entities, engaged in production, combine intellectual, financial and other resources to train highly qualified specialists on the basis of fundamental, applied scientific research and technological innovations;

A scientific and educational consortium is a temporary voluntary equal association, based on the agreement of joint economic and scientific activities, in which scientific organizations, higher educational institutions and other legal entities, including those ones, engaged in production, combine intellectual, financial and other resources to carry out fundamental, applied research, to develop technological innovations and train highly qualified specialists;

Scientific infrastructure is scientific, laboratory and engineering equipment, pilot industrial production, unique objects, as well as other movable and immovable property, being on the balance sheet of a scientific organization;

A startup company is an individual entrepreneur or legal entity, registered in the territory of the Republic of Kazakhstan, related to small or medium-sized businesses and

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meeting one of the presented requirements:

- it should be created with the participation of organizations of the higher and (or) postgraduate education, scientific organizations, whose activities are aimed at commercializing the results of scientific and (or) scientific and technical activities;
 - it should develop innovations;

Endowment fund of the organization of higher and (or) postgraduate education is a target-capital fund, formed by means of charitable assistance, gratuitous contributions, donations, grants, contributions of the founders (participants) of educational organizations, the investment income from which it is directed to finance scientific and (or) educational activities;

Center (office) of commercialization of the scientific and (or) scientific-technical activities' results is a legal entity, structural or separate division of the scientific organization, higher educational institution, autonomous or other educational organization, commercializing the results of scientific and (or) scientific and technical activities;

Grant for commercialization of the scientific and (or) scientific-technical activities' results is budgetary and (or) extra-budgetary funds, provided on a gratuitous and non-repayable basis for the implementation of projects of the commercialization of the results of scientific and (or) scientific and technical activities within the priority sectors of the economy;

Scientific, scientific-technical project and program is a document that includes the content of the intended scientific and technical work, representing scientific, scientific and technical, experimental design, marketing research with substantiation of the goal and objectives, relevance, novelty, scientific and practical significance and advisability of carrying out the planned works;

Scientist is an individual, who carries out scientific research and receives the results of scientific and (or) scientific and technical activities;

Research worker is an individual, who works at the scientific organization, higher educational institution or scientific division of the organization, having higher education, receiving and implementing the result of scientific and (or) scientific and technical activities;

Engineering and technical worker is an individual, working at the scientific organization or higher educational institution, who has secondary vocational education or higher education, contributing to the receipt of the result of scientific and (or) scientific and technical activities and its implementation;

Specialist is a qualification, awarded to individuals after mastering the educational program of higher education;

Higher education is acquired by citizens, who have general secondary education or technical and vocational education, or post-secondary education. A citizen has the right to receive free higher education on a competitive basis;

Higher special education (specialist's degree program) is the level of higher education, aimed at training personnel with awarding the qualification of specialist, as per a respective educational program, with obligatory mastering at least 300 academic credits;

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Postgraduate education is acquired by citizens, who have higher education;

Vocational education is a type of education, aimed at acquiring knowledge, abilities, skills and competencies by students, that allow them to carry out professional activities in the certain area and (or) perform a work in a specific profession or specialty;

Technical and vocational education is education, aimed at training qualified workers and mid-level specialists;

Educational program is a unified complex of the main characteristics of education, including goals, results and content of education, organization of the educational process, techniques and methods of their implementation, criteria of assessment of the learning outcomes;

Individual curriculum is a student's curriculum that is independently formed by him for each academic year with the help of an adviser, based on the educational program and the catalog of elective disciplines;

Bachelor's degree program is the level of higher education, aimed at training personnel with awarding a Bachelor's degree, as per the respective educational program, with obligatory mastering at least 240 academic credits;

Student is a person, studying at the educational organization, that implements educational programs of the technical and vocational education, post-secondary education and higher education;

Diploma work is a graduation work that is generalization of the results of studying a topical problem independently by a student, corresponding to the area of educational program;

Diploma project is a student's graduation work, which is an independent solution of the applied problems, corresponding to the area of the educational program, carried out with the usage of project approaches and (or) in the form of preparing business projects, model, as well as projects of a creative nature and other projects;

Bachelor's degree is a degree, awarded to people, who have mastered the educational programs of higher education;

Master's degree is postgraduate education, the educational programs of which are aimed at training personnel with awarding a Master's degree;

Master's degree student is a person, who studies under the master's degree program; Master's dissertation is a graduate work of the master's degree student of a scientific and pedagogical master's degree program, which is independent scientific research, containing theoretical and (or) practical developments of the topical problem in the field of selected educational program, based on modern theoretical, methodological and technological achievements of science and technology;

Master's project is a graduate work of the master's degree student of a specialized master's degree program, which is independent scientific research, containing theoretical and (or) experimental results, that allow to solve an applied problem of the topical problem of chosen educational program;

Master's degree is a degree, awarded to people, who have mastered educational master's degree programs;

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Doctoral program is postgraduate education, the educational programs of which are aimed at training personnel for scientific, pedagogical and (or) professional activities, with awarding the degree of Doctor of Philosophy (PhD), Doctor (by areas);

Doctoral student is a person, studying under the doctoral program;

Doctor of Philosophy (PhD) is a degree, awarded to people, who have mastered the doctoral program in the scientific and pedagogical direction and have defended a dissertation in the Republic of Kazakhstan or abroad, recognized in the manner, prescribed by the legislation of the Republic of Kazakhstan;

Doctor (by areas) is a degree, awarded to people, who have mastered the doctoral program in the respective field of professional activity and have defended a dissertation in the Republic of Kazakhstan or abroad, recognized in the manner, prescribed by the legislation of the Republic of Kazakhstan;

Doctoral dissertation is a scientific work of the doctoral student, which is independent research, in which theoretical statements are developed, the totality of which can be qualified as a new scientific achievement or a problem is solved, or scientifically grounded technical, economic or technological solutions are presented;

Scientific substantiation of the dissertation research (research proposal) is a document, prepared by a doctoral student and approved by the university during the first or second years of studying, that includes a goal, objectives and research methodology, a literature review and expected research results;

Dissertation councils are collegial bodies at the organizations of higher and (or) postgraduate education, which carry out the defense of doctor students' dissertations.

4 General provisions

- 4.1 Scientific and Technical Council is a consultative and advisory body of the University in the field of coordination, management and practical implementation of the research and innovation activities.
- 4.2 In its activities, STC is guided by the Law of the Republic of Kazakhstan, dated February 18, 2011 "On Science" [1], the Law of the Republic of Kazakhstan "On Education", dated July 27, 2007 [2], other regulatory and legislative acts in the field of science and commercialization, as well as the Charter of the University and this Provision.
- 4.3 This Provision on the Scientific and Technical Council of NPJSC "Abylkas Saginov Karaganda Technical University" (hereinafter referred to as Provision) determines the tasks and functions of the Scientific and Technical Council of the University, the procedure of its formation, work and competence.
 - 4.4 The Chairman of STC is Vice-rector for Research of the University.

5 Principal tasks of STC

5.1 Improving the structure of scientific divisions of the University and increase of

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the efficiency of their activities.

- 5.2 Formation of the research areas, schools and highly qualified research teams on the basis of the University.
- 5.3 Increase of the efficiency of using a scientific potential of the University to solve scientific and scientific-technical problems of the development of Kazakhstan, to improve the educational process.
- 5.4 Developing scientific and scientific-technical programs of the University, comprehensive plans of the research and development works, including research on the problems of higher education.
- 5.5 Scientific and technical support, and management of the research works, development works, design and survey works, and technological works.
- 5.6 Improvement of the quality of training specialists under the educational programs of higher and postgraduate vocational education, based on the usage of research results in the educational process, involvement of the doctoral students, master's degree students and students in performing scientific and scientific-technical works of the University.
- 5.7 Developing the forms of scientific and scientific-technical cooperation with organizations of Kazakhstan.
- 5.8 Expansion of the international scientific and scientific-technical cooperation with educational institutions and firms of the foreign countries.
- 5.9 Analysis of the condition and development of the proposals on improvement of training scientific and scientific teaching staff of the highest qualification.

6 Basic functions of STC

- 6.1 Analyzing scientific activities of the University.
- 6.2 Consideration of the main scientific trends and programs of the University in fundamental and applied research.
- 6.3 Consideration of the scientific and scientific-technical programs, and plans of research works of the structural divisions of the University.
- 6.4 Consideration of the provisions on scientific and scientific-technical activities of the University, on conducting the research works, coordination of the scientific and technical programs, and developments.
- 6.5 Consideration and approval of the proposals on improvement of the structure of scientific divisions of the University.
- 6.6 Development of the activities of increasing the efficiency of scientific potential usage of the University to solve scientific and scientific-technical problems of the development of Kazakhstan.
- 6.7 Consideration and recommendation for publication of the scientific monographs, prepared by academic teaching staff and employees of the University.
- 6.8 Listening to reports of the leaders of scientific and educational divisions of the University on a scientific work, which is performed, involvement of the master's degree students, doctoral students and students in it, on introduction of the scientific

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developments, the usage of research results in the educational process.

- 6.9 Consideration of the programs and plans of international scientific and scientific and technical cooperation.
- 6.10 Consideration of the programs and plans of scientific and scientific and technical cooperation with organizations of Kazakhstan.

7 Organization of the STC activities

- 7.1 The group of STC is formed by the Vice-rector for Research and approved by the Academic Council of the University.
- 7.2 STC consists of Vice-rector for Research (Chairman) and a director of the Science and Innovation Department (Deputy Chairman), according to a position. STC can include heads of the departments, leaders of the structural scientific divisions and leading scientists of the University, as well as employees of the Corporate University's organizations.
- 7.3 The meetings of STC are held on a regular basis, according to an approved plan and as needed, but not less than once a month. A meeting of STC is permitted, if it is attended by at least 2/3 of the approved nominal list of STC. Decisions are made by open vote and in some cases, by secret vote, according to the decision of Chairman, by a simple majority of votes.
 - 7.4 The validity period of this Provision on STC is 4 years from the date of approval.

If there are not any proposals of terminating the Provision, it is prolonged for an indefinite period.

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Appendix A (mandatory)

F.01-2022

Approval sheet

Position	Full name	Date	Signature
QMR	Zhetessova G.S.		0
Vice-rector for Research		-	
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List of literature

- [1] Standard rules of the activities of educational organizations, implementing educational programs of higher and (or) postgraduate education, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated October 30, 2018 No. 595 (with amendments and additions as of 04.07.2022);
- [2] State compulsory standard of postgraduate education (Doctoral program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 (with amendments and additions as of 04.07.2021);
- [3] State compulsory standard of postgraduate education (Master's degree program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 (with amendments and additions as of 04.07.2022);
- [4] State compulsory standard of higher education (Bachelor's degree program), approved by the order of the Minister of Education and Science of the Republic of Kazakhstan No. 604, dated October 31, 2018 (with amendments and additions as of 04.07.2022);
- [5] Rules of awarding degrees, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2011 No. 127 (with amendments and additions as of 04.07.2022);
- [6] Standard Provision on the Dissertation Council, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2011 No. 126 (with amendments and additions as of 04.07.2022);
- [7] Civil Code of the Republic of Kazakhstan, adopted by the Resolution of the Supreme Council of the Republic of Kazakhstan, dated December 27, 1994 No. 269-XII (with amendments and additions as of 04.07.2022);
- [8] Labor Code of the Republic of Kazakhstan, dated November 23, 2015 No. 414-V ZRK (with amendments and additions as of 27.06.2022);
- [9] State program of the education and science development of the Republic of Kazakhstan for 2020-2025, approved by the decree of the Government of the Republic of Kazakhstan, dated December 27, 2019 No. 988;
- [10] State program of industrial and innovative development of the Republic of Kazakhstan for 2020-2025, approved by the decree of the Government of the Republic of Kazakhstan, dated December 31, 2019 No. 1050;
- [11] GOST 7.32-2017 Interstate standard. System of standards on information, librarianship and publishing. Research report. Structure and rules of drawing up;
- [12] Rules of state recording of scientific, scientific and technical projects, and programs, financed from the state budget, and reports on their execution, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan, dated March 31, 2015 No. 149;
 - [13] Law of the Republic of Kazakhstan, dated February 18, 2011 No. 407-IV ZRK

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"On Science" (with amendments and additions as of 04.07.2022);

- [14] Law of the Republic of Kazakhstan, dated July 27, 2007 No. 319-III ZRK "On Education" (*with amendments and additions as of 04.07.2022*);
- [15] Law of the Republic of Kazakhstan, dated October 31, 2015 No. 381-V ZRK "On commercialization of the results of scientific and (or) scientific and technical activities" (as amended on 04.07.2022).