TURAN-ASTANA UNIVERSITY

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REGULATIONS ON RESEARCH ACTIVITIES

ASTANA-2025

Content

1. Regulatory references….....3
2.Definitions and abbreviations.....…….4
3. General provisions……..…….....5
4. Goals and objectives of scientific activity.....6
5. Criteria for publication activity…….....10
6. . Conducting research projects.....…….....11
7. . Educational and methodical literature (UML).....11
8. . Resource provision…….....…….....11
9. Criteria for publications of SCOPUS, WEB OF SCIENCE, UML.....11
10. Final provisions.....14

REGULATORY REFERENCES:

1. Constitution of the Republic of Kazakhstan

- **Article 20**-guarantees freedom of scientific creativity.
- **Article 30**-establishes the right of citizens to receive higher education, which is related to scientific activities in higher education institutions.

2. Codes of the Republic of Kazakhstan

- **Civil Code of the Republic of Kazakhstan (General Part) No. 268-XIII of December 27, 1994**-regulates property and intellectual rights in scientific activities.
- **The Code of the Republic of Kazakhstan on Administrative Offenses of July 5, 2014 No. 235-V SAM**-contains norms concerning violations in the field of science and education.
- **Code of the Republic of Kazakhstan "On Taxes and other mandatory payments to the budget" (Tax Code) dated December 25, 2017 No. 120-VI ZRK**-establishes tax benefits for scientific organizations.

3. Laws of the Republic of Kazakhstan

- **Law of the Republic of Kazakhstan "On Science" dated February 18, 2011 No. 407-IV SAM**
  - Defines the legal, organizational, and economic foundations of scientific and technical activities.
  - Establishes mechanisms for funding science, including grant and program-targeted funding.
  - Determines the status of the National Council for Science and Technology Policy.
- **Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 No. 319-III ZRK**
  - Regulates the integration of education and science.
  - Defines the legal status of scientific organizations in the higher education system.
- **Law of the Republic of Kazakhstan "On commercialization of the results of scientific and (or) scientific and technical activities" dated October 31, 2015 No. 381-V ZRK**
  - Defines the legal mechanisms for implementing scientific developments in the economy.
  - Introduces the institute of management companies for commercialization of scientific projects.
- **Law of the Republic of Kazakhstan "On Technology Transfer" dated June 13, 2022**
  - Establishes the legal basis for technology transfer and intellectual property protection.

DEFINITIONS AND ABBREVIATIONS:

Definitions:

1. **Scientific research activity (R & D)** is a systematic intellectual activity aimed at obtaining, analyzing, interpreting and applying new knowledge in various fields of science and technology.
2. **Basic research** – scientific research focused on obtaining new knowledge about the basic laws of the development of nature, society, and thinking without directly taking into account possible practical applications.
3. **Applied research** – research aimed at applying new scientific knowledge to solve specific practical problems.
4. **Experimental development** is an activity based on the application of scientific knowledge to create new or improve existing technologies, products or services.
5. **Innovation** is the end result of scientific activity and technological development, embodied in a new or improved product, service or process that has practical value.
6. **Scientific hypothesis** – an assumption that requires theoretical justification and experimental verification, formulated to explain certain phenomena or processes.
7. **Scientific method** – a set of principles, techniques and procedures used to obtain objective and reproducible scientific knowledge.
8. **Patentability** is a characteristic of an invention that determines the possibility of its legal protection based on the presence of novelty, inventive level and industrial applicability.
9. **Scientometry** is a field of knowledge that studies quantitative and qualitative indicators of scientific activity using statistical and analytical methods.
10. **Peer-reviewed publication** – a scientific article that has passed peer review before being published in an academic journal.

Abbreviations:

1. **R** & D – research work
2. **R** & D – research and development activities
3. **RSCI** – Russian Science Citation Index
4. **HAC** – Higher Attestation Commission
5. **SCOPUS** – international abstract database of scientific publications
6. **WoS (Web of Science)** – an international platform for analyzing scientific publications
7. **IF (Impact Factor)** – impact factor, an indicator of citation of scientific journals
8. **DOI (Digital Object Identifier)** – digital identifier of a scientific publication
9. **H-index –** the H-index, an indicator of productivity and citation of a scientist
10. **ORCID (Open Researcher and Contributor ID)** – an international identifier of a scientist for recording his scientific publications

1.GENERAL PROVISIONS

1.1. The Regulations on Science of the University "Turan-Astana" define the goals, objectives, main directions and criteria of research activities in the humanities and technical sciences.

1.1.11.1 Objectives of research activities

Development of basic and applied research in the humanities and technical sciences in accordance with national and international priorities.

Integration of the university into the global scientific space through international cooperation and publications.

Support for innovation and commercialization of scientific developments.

Improving the quality of education by introducing scientific results into the educational process.

Development of human resources through the involvement of students and young scientists in scientific research.

1.2.22.2 Main objectives of research activities

Formation of competitive research areas that can attract grant funding.

Organization of research work of teachers, postgraduates and students.

Development of interdisciplinary research at the intersection of humanities and technical sciences.

Participation in international research projects, publication of articles in peer-reviewed journals (Scopus, WoS).

Development of cooperation with government agencies, business and industry in the framework of scientific research.

Creation of scientific schools, conferences, seminars and scientific competitions.

1.3.33.3 Main directions of scientific research

Humanities

Law and public administration (legal regulation, digitalization, judicial practice).

Economics and finance (sustainable development, innovative business models, fintech).

Social sciences (cultural studies, psychology, sociology, media communications).

History and national identity (Kazakh history, ethnocultural studies).

Pedagogy and education (digital technologies in teaching, competence-based approach).

Technical Sciences

Information technologies and artificial intelligence (Big Data, machine learning, cybersecurity).

Engineering and Technology (automation, robotics, power engineering).

Ecology and sustainable development (ecotechnologies, rational use of natural resources).

Smart city and urbanism (intelligent systems, transport technologies).

Space research and aerospace engineering (through partnerships with research centers).

1.4.44.4 Criteria for evaluating research activities

Publication activity: The number of articles published in international indexed journals (Scopus, WoS, RSCI, etc.).

Attracting funding: Participation in grant projects, the amount of funds raised.

Citation index: The Hirsch Index, the number of references to the work of university researchers.

Commercialization: Developed patents, technologies, introduction into production.

International cooperation: The number of joint projects, internships abroad, and publications with foreign co-authors.

Participation in scientific events: Organizing and participating in conferences, round tables, and expert discussions.

1.2. The document regulates the requirements for publication activity, participation in research projects, as well as the publication of educational and methodical literature (UML).

The regulation is developed on the basis of legislative and regulatory acts of the Republic of Kazakhstan, including the Law "On Science", as well as internal regulations of the University.

The University's research activities are aimed at developing fundamental and applied research in the humanities and technical sciences, integrating science and education, and commercializing scientific developments.

2. GOALS AND OBJECTIVES OF SCIENTIFIC ACTIVITY

2.1. Development of the university's scientific potential in accordance with international standards. The scientific potential of the university is associated with the use of research laboratories, innovation centers, technology parks and research institutes. It is also important to equip research standards with up-to-date hardware and software that correspond to advancedcomputer technologies.

Creating conditions for conducting interdisciplinary research, as well as for interaction with industrial and business structures in modern scientific research.

2.2. Promoting the publication activity of teachers and researchers.

When solving the problem of increasing publication activity, the mechanism of stimulating publications in the world's leading peer-reviewed scientific journals included in the Scopus, Web of Science and other recognized world scientific citation indexes databases is important for achieving the result. Publication activity is undoubtedly associated with theчастием participation of scientists and university teachers in international scientific conferences, symposia, seminars, schools and other scientific events that promote their exchange of research and development. To attract students to publications, it is also necessaryto develop academic mobility programs to solve problems that allow them to conduct internships in foreign universities, research centers and laboratories. Especially for stimulating publication activity

Creation of internal support programs for young scientists aimed at stimulating research activities, attracting students and postgraduates to modern research.

2.3. Attracting grant funding and developing research projects.

Grant funding is one of the key forms of support for scientific research aimed at the development of science, technology and innovation. Grants are provided by public foundations, international organizations, private foundations, universities, and corporations. Their goal is to encourage scientific research and technological developments, solve current scientific and social problems, and promote the development of the academic environment.

Grant funding is targeted in nature, i.e. funds are provided exclusively for the implementation of a scientific project that meets the stated requirements. In most cases, to receive a grant, it is necessary to pass a competitive selection process, which includes the submission of an application, justification of the scientific significance of the work, methodological approach, projected results and their contribution to science and society.

Grants allow you to finance fundamental and applied research, contribute to the generation of new knowledge, the development of advanced technologies and the introduction of innovative solutions.

Universities and research centers that attract grant funding have more opportunities to implement large-scale scientific programs, international cooperation and publication activity.

Grants provide an opportunity to purchase modern equipment, software, supplies, as well as funding for laboratory and experimental research.

Funding of grant projects makes it possible to pay salaries to researchers, attract young scientists, postgraduates and students to scientific activities, thereby stimulating the development of scientific schools.

Grant programs often include opportunities for joint research with foreign partners, internships and exchange of experience, which contributes to integration into the global scientific community.

The results of scientific research supported by grants can be implemented in the economy and public sphere, contributing to the development of new technologies, improving the quality of life and solving current problems of society.

Thus, attracting grant funding plays an important role in the development of science, ensuring the sustainability of research projects, expanding opportunities for scientists and promoting the integration of domestic science into the global scientific space.

2.4 Support of educational and methodical activities and creation of high-quality UML.

Publications in journals indexed in Scopus, Web of Science.

Indexing of publications:

Publications in journals indexed in Scopus, Web of Science, RSCI.

Division into categories: Q1-Q4 for Scopus and WoS, priority given to Q1 and Q2 journals.

2.4.11. Impact factor:

Minimum impact factor of the journal (for example, not less than 1.0 for technical sciences and 0.5 for humanities).

Type of publications:

Articles in scientific journals, monographs, and chapters in collective works.

Participation in collections of international conferences.

International cooperation:

Publications in collaboration with foreign scientists.

Participation in international conferences and symposia.

Publication Guide

22 Frequency of publications

- Teachers and researchers should publish at least 1-2 articles per year in international indexed publications.

23 Publication language

- Preference for articles in English, possibly in other languages, when published in national journals.

- Compliance with the requirements of MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN, preference for journals with a high impact factor.

24 Compliance with the requirements of MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN

- Publications should be published in journals included in the List of scientific publications recommended by MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN.

25 Topic of publications

- Articles should correspond to the subject of the journal and the scientific direction of the university (humanities and technical sciences).

26 Quality of publications

- Availability of annotations and keywords in three languages: Kazakh, Russian and English.

- The content of an original scientific study, literature review, or analytical article.

- Compliance with methodological standards (correct structure of the article, including introduction, methods, results, discussion, conclusions).

27 Originality and novelty

- The level of originality of the text is at least 75-80% (including checking for plagiarism through the Anti-plagiarism, Turnitin or similar systems).

- No self-plagiarism (avoid publishing identical or similar articles in different journals).

28 Frequency of publications

- Teachers and researchers should publish at least 1-2 articles per year in MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN journals.

29 Scientific level of co-authors

- Co-authorship with doctors of science, candidates of Science or PhD is welcome.

- Participation of undergraduates and postgraduates is possible, subject to the presence of a supervisor.

30 Citation and bibliography

- Compliance with the requirements for the design of the bibliographic list (APA, GOST or other formats, depending on the journal).

- Availability of cited sources, preference is given to recent publications (the last 5-7 years).

31 Participation in the review process

- Teachers can participate as reviewers in MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN journals, which will increase their professional status.

3.CRITERIA FOR PUBLICATION ACTIVITY

3.1 Grant activities.

Development of projectsin high-priority research areas:

3.1Implementation of projects in priority scientific areas (humanities and technical sciences). Development of the humanities and technical sciences, taking into account national and international trends.

3.2Participation in national and international grant programs (Horizon Europe, Erasmus+, state programs of the Republic of Kazakhstan).

Participation in grant programs. Attracting grants from Horizon Europe, Erasmus+, government programs in Kazakhstan, and private foundations.

3.3.3 Project performance:

3.4.4 Presentation of research results in the form of publications, patents, implementation of developments.

3.5.5 Implementation of scientific developments in the educational process or practice.

3.6 Involvement of students, undergraduates and doctoral students in research activities.

4.Timely reporting on the implementation of grant projects.

4.2.2 Resource provision.

4.3 Providing access to scientific databases and library resources. Providing access to scientific databases and library resources is a key element in supporting research, the educational process, and academic activities at universities and research institutes. Access to up-to-date and reliable scientific publications, books, articles and other sources of knowledge allows scientists, teachers and students to work effectively with information, develop their research and publish results in reputable publications.

4.4 Organization of methodological seminars and trainings.

The organization of methodological seminars and trainings is a system of events aimed at improving the level of methodological training of researchers, teachers, students, undergraduates and doctoral students. These events contribute to the development of professional competencies in the field of scientific research, preparation of publications, working with databases and mastering modern methods of analysis.

4.5 Financial and administrative support for scientific initiatives.

Financial and administrative support for scientific initiatives is a set of measures aimed at providing the necessary resources for successful research, project implementation, participation in conferences, preparation of publications and attracting grant funding.

5.CONDUCTING RESEARCH PROJECTS

5.1.1 Implementation of projects in priority scientific areas (humanities and technical sciences). Development of the humanities and technical sciences, taking into account national and international trends.

5.2.2 Participation in national and international grant programs (Horizon Europe, Erasmus+, state programs of the Republic of Kazakhstan).

5.3.3 Participation in grant programs:

5.4.4 Attracting grants from Horizon Europe, Erasmus+, government programs in Kazakhstan, and private foundations.

5.6 Project performance:

5.7 Presentation of research results in the form of publications, patents, implementation of developments.

5.8 Implementation of scientific developments in the educational process or practice.

5.9 Involvement of students, undergraduates and doctoral students in research activities.

6. Student engagement:

6.1 Attracting students and postgraduates to participate in research projects.

6.2 Organization of student scientific circles, support of scientific initiatives.

Timely submission of scientific reports, publication of results in the public domain (where possible).

Providing access to scientific databases, laboratories, and equipment.

Support of participation in scientific events (conferences, seminars, internships).

6.EDUCATIONAL AND METHODICAL LITERATURE (UML)

6.1.1 Development of textbooks, manuals, and guidelines in accordance with educational programs.

6.2.2 Approval of the UML with the Academic Council of the University and obtaining the stamp of the Ministry of Education and Science of the Republic of Kazakhstan.

7.RESOURCE SUPPORT

7.1. Providing access to scientific databases, laboratories, and library resources.

7.2. Organization of seminars, trainings and educational events for teachers ' professional development.

8. CRITERIA FOR PUBLICATIONS OF SCOPUS, WEB OF SCIENCE, UML

1. Indexing of publications:

Publications in journals indexed in Scopus, Web of Science, RSCI.

Division into categories: Q1-Q4 for Scopus and WoS, priority given to Q1 and Q2 journals.

2. Impact factor:

Minimum impact factor of the journal (for example, not less than 1.0 for technical sciences and 0.5 for humanities).

3. Type of publications:

Articles in scientific journals, monographs, and chapters in collective works.

Participation in collections of international conferences.

4. International cooperation:

Publications in collaboration with foreign scientists.

Participation in international conferences and symposia.

5. Frequency of publications:

Teachers and researchers should publish at least 1-2 articles per year in international indexed publications.

Publication language:

Preference for articles in English, possibly in other languages when published in national journals.

Criteria for publication activity in MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN:

1. Compliance with the requirements of MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN:

* Publications should be published in journals included in the List of scientific publications recommended by MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN.

* Articles should correspond to the subject of the journal and the scientific direction of the university (humanities and technical sciences).

2. Quality of publications:

* Availability of annotations and keywords in three languages: Kazakh, Russian and English.

* The content of an original scientific study, literature review, or analytical article.

* Compliance with methodological standards (correct structure of the article, including introduction, methods, results, discussion, conclusions).

3. Originality and novelty:

* The level of originality of the text is at least 75-80% (including checking for plagiarism through the Anti-plagiarism, Turnitin or similar systems).

* No self-plagiarism (avoid publishing identical or similar articles in different journals).

4. Frequency of publications:

* Teachers and researchers should publish at least 1-2 articles per year in MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN journals.

5. Scientific level of co-authors:

* Co-authorship with doctors of Science, candidates of Science or PhD students is welcome.

* Participation of undergraduates and postgraduates is possible, subject to the presence of a supervisor.

6. Citation and bibliography:

* Compliance with the requirements for the design of the bibliographic list (APA, GOST or other formats, depending on the journal).

* Availability of cited sources, preference is given to recent publications (last 5-7 years).

7. Participation in the review process:

* Teachers can participate as reviewers in MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN journals, which will increase their professional status.

Criteria for publishing educational and methodical literature (UML):

1. Types of educational publications:

Textbooks: Support for publishing textbooks that correspond to educational programs.

Study guides: Development of practical and theoretical manuals for students.

Methodological recommendations: Manuals for teachers on the organization of the educational process.

Workbooks and workshops: Teaching materials for students ' independent work.

2. Content and structure:

Compliance with state educational standards and university curricula.

Having a clear structure:

Introduction, goals and objectives of the course.

The main part contains theoretical material and practical tasks.

Control questions, tests, and self-test tasks.

List of references and resources used.

3. Quality of methodological material:

Ensuring that the material is accessible for students of different levels of training to understand.

Application of modern pedagogical techniques (case-based methods, project-based training, practice-oriented approach).

Enabling interactive elements: tasks, tests, and case studies.

4. Design and technical requirements:

Compliance with the requirements for the design of educational and methodical literature: Font, formatting, and presentation style.

Availability of illustrations, diagrams, and tables (if necessary).

Preparation of the publication in electronic format for integration into distance learning systems (LMS, Moodle).

5. Examination and approval of:

Passing internal review at the department or in the educational and methodological department of the university.

Approval by the Academic Council of the university or the methodological commission.

If necessary, get a stamp ("Recommended by the Ministry of Education and Science of the Republic of Kazakhstan").

6. Frequency of publications:

Development and publication of at least one teaching publication every two years for teachers.

Updating the UML to reflect changes in educational programs and scientific achievements.

7. Use in the educational process:

Inclusion of the developed UML in the curricula and programs of disciplines.

Organization of master classes or seminars for teachers on the use of new teaching materials.

Criteria for research projects:

1. Priority research areas:

Development of the humanities and technical sciences, taking into account national and international trends.

2. Participation in grant programs:

Attracting grants from Horizon Europe, Erasmus+, government programs in Kazakhstan, and private foundations.

3. Project performance:

Presentation of research results in the form of publications, patents, implementation of developments.

Implementation of scientific developments in the educational process or practice.

4. Student engagement:

Attracting students and postgraduates to participate in research projects.

Organization of student scientific circles, support of scientific initiatives.

5. Reporting:

Timely submission of scientific reports, publication of results in the public domain (where possible).

6. Resource support:

Providing access to scientific databases, laboratories, and equipment.

Support of participation in scientific events (conferences, seminars, internships).

9. FINAL PROVISIONS

9.1. This Regulation comes into force from the moment of its approval by the Academic Council of Turan-Astana University.

9.2. Amendments and additions to the Regulations are accepted in accordance with the established procedure based on the proposals of departments and structural divisions of the University.