Approved by
Chairman of the Management Board
– Rector of NLC KTU
_____ M.K. Ibatov

Decision of the Academic Council
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DOCUMENTED PROCEDURE

MANAGEMENT OF EDUCATIONAL AND ORGANIZATIONAL PROCESSES OF POSTGRADUATE EDUCATION

KTU DP II-08-2021

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Karaganda

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1 Scope

This Documented procedure establishes requirements for the order of organization, planning, conducting and evaluation of educational and organizational processes of postgraduate education of NLC "Karaganda Technical University" (KTU). The provisions of this procedure are mandatory for application by all students of postgraduate education, scientific supervisors and consultants, heads of departments, employees of the KTU.

2 Regulatory references

In this Documented procedure, references to the following regulatory documents are used:

ST RK ISO 9001-2016 (ISO 9001:2015) "Quality management systems. Requirements".

ST RK ISO 9000:2017 (ISO 9000:2015) "Quality management systems. Basic provisions and vocabulary".

The Law of the Republic of Kazakhstan "On Education" dated July 27, 2007;

The Law of the Republic of Kazakhstan "On Science" dated February 18, 2011;

Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 604 "On approval of state mandatory education standards";

Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of the Rules for the organization of the educational process on credit technology of education" dated April 20, 2011 No. 152;

Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of Standard rules for admission to educational organizations implementing educational programs of higher and postgraduate education" dated October 31, 2018 No. 600;

Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of the Rules for awarding academic degrees" dated March 31, 2011 No. 127;

Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of Standard Rules for the activities of educational organizations of appropriate types" dated October 30, 2018 No. 595.

3 Terms, definitions and abbreviations

In this documented procedure, terms, definitions and abbreviations are used in accordance with MS ISO 9000:2015 "Quality Management System. Basic provisions and vocabulary":

- KTU – Karaganda Technical University;
- DP – documented procedure;
- QMR – Quality management representative;
- CQM&A – center of quality management and accreditation;
- SMSE – State mandatory standard of education
- AC – Attestation Commission
- EP – Educational program
- SC – Standard curriculum
- IC – Individual curriculum
- WC – Working curriculum
- CED – Catalog of elective disciplines
- RW – Research work
- RWM – Research work of a master's student
- RWD – Research work of a doctoral student
- IW – Independent work
- EMCD – Educational and methodological complexes of disciplines
- DPE– Department of Postgraduate Education
- RO – Registrar's Office
- STC – Scientific and Technical Council

Credit technology of training is the training based on the choice and independent planning of the sequence of studying the pre-requisite and post-requisite disciplines by students using credit as a unified unit of measurement of the volume of academic work of the student and the teacher.

Credit is a unified unit of measurement of the volume of undergraduate academic work; one credit is equal to 1 academic hour of undergraduate classroom work per week during the academic period (semester).

Academic calendar is the schedule of training sessions and control activities during the academic year with indication of rest days (holidays);

Academic leave s the period for which a student temporarily interrupts his studies for health reasons, including pregnancy and childbirth.

Academic period is a period of theoretical study chosen by a higher educational institution in one of two forms: a semester lasting 15 weeks, the third semester lasting 6-8 weeks;

The schedule of the educational process is a document defining the sequence and alternation of theoretical training, practical training, intermediate certification,

final certification of students of all educational programs of all courses during the academic year.

A report is a final text, graphic or other form of document confirming the fact that a specific work has been performed.

A transcript is a document about academic performance, with a list of subjects and grades received for them.

The summer semester is an additional semester for the elimination of academic debts and differences in curricula, as well as for additional training.

Doctoral studies – postgraduate education, the educational programs of which are aimed at training personnel for scientific, pedagogical and/or professional activities with the award of the degree of Doctor of Philosophy (PhD) (doctor in profile).

Doctoral student is a person studying for a doctoral degree.

A doctoral dissertation is a scientific work of a doctoral student, which is an independent study in which theoretical provisions have been developed, the totality of which can be qualified as a new scientific achievement, or a scientific problem has been solved, or scientifically based technical, economic or technological solutions have been outlined.

Doctor of Philosophy (PhD) is a degree awarded to persons who have mastered the doctoral program in the scientific and pedagogical direction and defended their dissertation in the Republic of Kazakhstan or abroad, recognized in accordance with the procedure established by the legislation of the Republic of Kazakhstan.

A Master's degree is a degree awarded to persons who have mastered Master's degree programs.

A master's student is a person studying for a master's degree.

A master's degree is a level of postgraduate education aimed at training personnel with the award of a master's degree in the appropriate educational program.

A master's dissertation is the final work of a master's student of a scientific and pedagogical master's degree, which is an independent scientific study containing theoretical and/or practical developments of an urgent problem in the field of a chosen educational program, based on modern theoretical, methodological and technological achievements of science and technology.

The Master's project is the final work of a master's student of a specialized master's degree, which is an independent study containing theoretical and (or) experimental results that allow solving an applied problem of an actual problem of a selected educational program.

The industrial practice of undergraduates is a type of practice that is carried out in order to consolidate the theoretical knowledge gained in the course of training, acquire practical skills, competencies of professional experience in the specialty under study, as well as the development of best practices.

Research practice of undergraduates is a type of practice that aims to familiarize with the latest theoretical, methodological and technological achievements

of domestic and foreign science, with modern methods of scientific research, processing and interpretation of experimental data.

Pedagogical practice of undergraduates is a type of practice that is carried out in order to form practical skills of teaching and learning methods.

The educational program is a general characteristic of the content of the training of students, expressed mainly through a list of disciplines and types of educational and research work, combined into appropriate cycles with an indication of their volume.

Targeted training is an opportunity to build a professional career in the chosen field of training (specialty) on the basis of contractual relations with the employer organization.

4 Responsibility and authority

4.1 This Documented procedure (DP) is approved by the Chairman of the Management Board - the Rector of KTU.

4.2 Responsibility for the implementation of the procedure is borne by a Quality Management Representative (QMR) and the head of the Center of Quality Management and Accreditation (CQM&A).

4.3 The developer of this procedure is the head of the DPE, who is responsible for the compliance of the provisions of this DP with the requirements of ISO 9001 and for the management of the procedure.

4.4 Undergraduates and doctoral students, scientific supervisors and consultants, heads of graduate departments, the head of the DPE and employees of structural units that ensure the implementation of the educational program of the master's and doctoral studies are responsible for the execution and functioning of this Documented procedure.

5 General provisions

5.1 The training of students in the framework of master's and doctoral degree programs is carried out by educational and scientific organizations that provide postgraduate education and have the appropriate licenses for educational activities.

5.2 The objectives of the Documented procedure are:

– creation at the University on the basis of the integration of education and science of an effective system of training of scientific, scientific and pedagogical personnel of a new formation, capable of solving issues of improving the economy, production, science and the development of new technologies;

– harmonization of domestic technologies for the training of highly qualified scientific and pedagogical personnel with international standards, as well as advanced solution of issues of their scientific, methodological, legal, financial, economic, personnel and logistical support;

– implementation of the educational process in accordance with the principles of international practice of training highly qualified scientific and pedagogical personnel, competitive in the modern labor market.

5.3 The objectives of the documented procedure are:

– integration into the global scientific and educational environment;

– introduction into the educational process of modern and relevant technologies, methods and means of education aimed at individual development of the individual, his ability to self-development, self-determination and self-education;

– ensuring the continuity of educational programs at the University of the multilevel structure of higher and postgraduate professional education.

6 Organization of entrance examinations for postgraduate education programs

6.1 The formation of a contingent of undergraduates and doctoral students of the KTU is carried out through the placement of a state educational order for the training of scientific and pedagogical personnel, as well as tuition fees at the expense of citizens' own funds and other sources.

6.2 Admission of persons to master's degree, doctoral studies, including targeted training, residency of health education organizations, educational programs of higher and (or) postgraduate education and scientific organizations is carried out on a competitive basis based on the results of comprehensive testing (hereinafter referred to as CT) or entrance exams.

6.3 Applicants for doctoral studies provide international certificates confirming foreign language proficiency in accordance with the pan-European competencies (standards) of foreign language proficiency:

English: IELTS (AILTS)/International English Language Tests System threshold score - at least 5.5;

IELTS INDICATOR, threshold score - at least 5,5;

Test of English as a Foreign Language Institutional Testing Programm, TOEFL ITP threshold score - at least 460;

Test of English as a Foreign Language Institutional Testing Programm, Internet-based Test, TOEFL IBT, threshold score - at least 46;

TOEFL PBT, Test of English as a Foreign Language Paper-based testing, threshold score - at least 453;

German: Deutsche Sprachpruefung fuer den Hochschulzugang, (DSH, NiveauB2), TestDaF-Prufung (Niveau B2);

French: Test de Fran3ais International™ – (TFI) – not lower than level B2 in the reading and listening sections), Diplome d'Etudes en Langue fran3aise – (DELF), B2 level), Diplome Approfondi de Langue fran3aise – (DALF), B2 level), Test de connaissance du fran3ais – (TCF) – at least 50).

Persons who have one of the international certificates confirming foreign language proficiency in accordance with the Pan-European competencies (standards) of foreign language proficiency are exempt from the foreign language CT test for the Master's degree in the following languages:

English: IELTS/International English Language Tests System, threshold score - not less than 6.0;

IELTS INDICATOR, threshold score – not less than 6,0;

Test of English as a Foreign Language Institutional Testing Programm, (TOEFL ITP), threshold score – not less than 543;

Test of English as a Foreign Language Institutional Testing Programm, Internet-based Test, (TOEFL IBT), threshold score – not less than 60;

TOEFL PBT, Test of English as a Foreign Language Paper-based testing, threshold score – not less than 498;

Duolingo English Test, threshold score – not less than 95;

German: Deutsche Sprachpruefung fuer den Hochschulzugang (DSH, Niveau C1), TestDaF-Prufung (Niveau C1/);

French: Test de Fran3ais International™ – (TFI) – not lower than level B1 in the reading and listening sections), Diplome d'Etudes en Langue fran3aise – (DELF), B2 level), Diplome Approfondi de Langue fran3aise – (DALF), C1 level), Test de connaissance du fran3ais – (TCF) – at least 50).

6.4 Persons who have certificates of passing the test in a foreign language (English, French, German) specified in paragraph 6.3 of this Documented procedure are credited with 50 points.

6.5 The training of personnel in the magistracy is carried out on the basis of educational programs of higher education.

6.6 At the "entrance", in case the profile of the doctoral program coincides with the master's program, the results of the previous level of education are recognized automatically; in case the profile of the doctoral program does not match with the master's program, prerequisites are set for the doctoral student to master.

At the "entrance", in case the profile of the master's degree program coincides with the higher education program, the results of the previous level of study are recognized automatically; in case the profile of the master's degree program does not match with the educational program of higher education, prerequisites are set for the master's student to master.

The list of necessary prerequisites and the terms of their development are determined by universities independently. Prerequisites are mastered on a paid basis.

6.7 Acceptance of applications for the master's degree, doctoral degree of EHPE, residency of educational organizations in the field of healthcare, as well as EHPE and scientific organizations is carried out by the admissions committees of EHPE and scientific organizations and (or) through the information system.

6.8 Persons entering the Master's program of the University submit the following documents:

- application addressed to the head of the EHPE in any form;
- document on higher education (original, when submitting documents to the admissions committee);
- a copy of the certificate of passing the test for the programs specified in paragraph 6.3 (if any);
- six photos measuring 3x4 centimeters;
- a medical certificate in the form approved in accordance with subparagraph 31) of Article 7 of the Code of the Republic of Kazakhstan dated July 7, 2020 "ON the health of the people and the healthcare system of the Republic of Kazakhstan".
- a copy of the identity document;

6.9 Persons entering the doctoral program of the University submit the following documents:

- application addressed to the head of the EHPE in any form;
- a copy of the identity document;
- document of education (original, when submitting documents to the admissions committee);
- international certificate confirming foreign language proficiency in accordance with the pan-European competencies (standards) of foreign language proficiency;
- list of scientific and methodological works (if any);
- six photos measuring 3x4 centimeters;
- medical documentation in the form 075/y in electronic format, approved by the order of the Acting Minister of Health of the Republic of Kazakhstan dated October 30, 2020 No. KR DSM-175/2020 "On approval of forms of accounting documentation in the field of healthcare" (registered in the Register of State Registration of Regulatory Legal Acts under No. 21579);
- a personnel record sheet or other document confirming work activity, certified by the personnel service at the place of work.

6.10 To receive documents and organize entrance examinations at the University, an admission committee is created.

6.11 The Chairman of the admissions Committee is the Rector of the University.

6.12 Examination commissions for groups of educational programs are formed from among the teaching staff of the EHPE, employees of the EHPE who have an academic degree of doctor or candidate of sciences, or a degree of Doctor of Philosophy (PhD) in the corresponding profile.

The composition of the examination commissions with the indication of their chairmen are approved by the order of the Rector of the University.

6.13 6.13 To consider the applications of persons who disagree with the results of the entrance (creative) exams and the Republican Appeals Commission under the Ministry of Education and Science of the Republic of Kazakhstan is being created.

6.14 6.14 Persons entering the master's program take a CT, which includes a test in a foreign language (English, German, French), a test on the profile of groups of educational programs, a test to determine readiness for elective study in Kazakh or Russian.

6.16 The entrance exam to the doctoral program is conducted on the basis of the Regional Testing Center in a computer format.

6.17 The duration of the entrance exam is 4 hours, during which the applicant writes an essay, passes a test for readiness for doctoral studies, answers an electronic examination ticket consisting of 3 questions. The list of questions and the topic of the essay are formed in random order.

6.18 The programs of entrance examinations for groups of educational programs of doctoral studies are approved annually by the Chairman of the Academic Council, posted on the University's website.

6.19 Enrollment of persons in the master's program is carried out according to the results of CT in accordance with the Scale of the 150-point assessment system for CT in the master's program with Kazakh or Russian language of instruction: at least 50 points, including in a foreign language - at least 25 points, according to the profile of a group of educational programs: with the choice of one correct answer - at least 7 points, with the choice of one or more correct answers - at least 7 points, on the test to determine readiness for training - at least 7 points.

Enrollment of persons in doctoral studies is carried out on the basis of an international certificate confirming proficiency in a foreign language in accordance with the pan-European competencies (standards) of proficiency in a foreign language and based on the results of the entrance exam for the profile of the group of educational programs of doctoral studies and scored at least 50 points out of a possible 100 points.

Persons who have scored at least 75 points on the entrance exam are enrolled for doctoral studies under the state educational order on a competitive basis.

6.20 In the case of the same indicators of competitive points, the persons who have the highest score in the profile of the group of the educational program receive the preferential right to enroll in doctoral studies. Then scientific achievements corresponding to the profile of the educational program are taken into account: scientific publications, including in rating scientific publications; certificates of scientific developments; certificates of awarding scientific scholarships, grants; certificates /diplomas for participation in scientific conferences and competitions.

6.21 Persons with a master's degree and at least 9 months of work experience are accepted for doctoral studies.

6.22 Retake of entrance exams for groups of post-graduate education is not allowed.

6.23 An application for appeal from persons entering doctoral studies, magistracy is submitted to the chairman of the appeal commission by the applicants personally. Applications are accepted until 13.00 hours of the next day after the announcement of

the results of the entrance (creative) exams and CT, are considered by the appeal commission within one day from the date of submission of the application. To consider the applications of persons who disagree with the results of CT, the Republican Appeals Commission under the Ministry of Education and Science of the Republic of Kazakhstan is being created.

When conducting CT in electronic format, the applicant's application for appeal is accepted within 30 minutes after the completion of testing.

7 Rules of study in Master's and doctoral studies

7.1 The structure of the master's and doctoral degree educational programs contains two equivalent components: educational and scientific, which determine the content of education.

7.2 The Master's degree program contains:

– theoretical training, including the study of a cycle of basic and core disciplines;

– practical training of undergraduates: various types of practices, scientific or professional internships;

– research work, including the implementation of a master's thesis – for scientific and pedagogical magistracy;

– experimental research work, including the implementation of a master's project - for a specialized master's degree;

– final certification.

7.3 The educational program of the doctoral program contains:

– theoretical training, including the study of a cycle of basic and core disciplines;

– practical training of doctoral students: various types of professional practices, scientific internships, research work, including the implementation of a doctoral dissertation;

– final certification.

7.4 In all forms of master's and doctoral degree curricula, a single coding system of academic disciplines is used. Each discipline should have one non-repeating name. It should be mastered in one academic period, at the end of which undergraduates and doctoral students pass the final control in the form of an exam, with the exception of all types of professional practices, term papers (projects), internships.

7.5 The academic year in the master's and doctoral studies consists of academic periods, the period of intermediate certification / final control, practices, internships, vacations, research (experimental research) work and final certification in the final year. It is allowed to introduce a summer semester, with the exception of the final course, lasting at least 6 weeks to meet the needs for additional training, eliminate academic debt or differences in curricula, study academic disciplines and master credits in other universities with their mandatory transfer to their university, increase the average academic achievement score (GPA).

7.6 Theoretical training consists of a cycle of basic and core disciplines. Cycles of basic (hereinafter referred to as BD) and profiling (hereinafter referred to as PD) disciplines include disciplines of the university component (hereinafter referred to as UC) and the elective component (hereinafter referred to as EC). At the same time, the ratio of the volume of the BD and the PD is determined by the university independently.

7.7 The list of disciplines of the mandatory component is determined by the Standard Curriculum. It is not allowed to reduce the volume of disciplines of the mandatory component.

7.8 The list of elective component disciplines is set by the graduating department of the University independently in accordance with the needs of the labor market and are reflected in the catalog of elective disciplines (CED), which specifies the list of pre- and post-mandatory disciplines.

7.9 The Master 's degree program includes two types of practices:

- Pedagogical practice is conducted in order to form practical skills and teaching methods. It can be conducted during the period of theoretical training without interruption from the educational process, while undergraduates can be involved in conducting classes in the bachelor's degree.

- The research practice is conducted in order to familiarize with the latest theoretical, methodological and technological achievements of domestic and foreign science, with modern methods of scientific research, processing and interpretation of experimental data.

7.10 The educational program of the profile master's degree includes industrial practice, which is carried out in order to consolidate the theoretical knowledge gained in the learning process, acquire practical skills, competencies and professional experience, as well as the development of best practices.

7.11 The content of the research/production practice is determined by the topic of the dissertation/project research and is conducted under the supervision of the supervisor/consultant of the undergraduate/doctoral student.

7.12 The practice of undergraduates and doctoral students is carried out in accordance with the approved academic calendar and the individual work plan of the undergraduate or doctoral student in the amount established by the SMSE.

7.13 The scientific component of the educational program is formed from the research work of a master's and doctoral student, their scientific publications, scientific internship and writing a master's or doctoral dissertation/project.

7.14 The scientific work of students is organized directly at the graduate departments and/or in the scientific laboratories of the University, as well as at the leading enterprises of the Republic's branches and enterprises belonging to the Corporate University.

7.15 The results of RW or ERW at the end of each period of their passage are issued in the form of a report, which includes a review of the supervisor, an extract

from the minutes of the meeting of the department, a list of sources used and a certificate of verification for anti-plagiarism.

7.16 The main results of the master's thesis (project) must be presented in at least one publication and/or one presentation at a scientific and practical conference.

7.17 The final result of the research or experimental research work of a graduate student is a master's thesis (master's project).

7.18 The main criterion for the completion of the educational process for the preparation of masters is the development of a master's degree:

– with scientific and pedagogical training - at least 120 credits;

– with specialized training - at least 60 and 90 credits with a training period of 1 and 1.5 years, respectively.

7.19 In order to form practical skills of scientific and professional activity, the doctoral student undergoes pedagogical and research practice. The management of the practice is carried out by the scientific consultant of the doctoral student.

7.20 Pedagogical practice can be carried out during the period of theoretical training without interrupting the educational process, doctoral students can be involved in conducting classes in bachelor's and master's degrees.

7.21 Research practice is conducted in order to study the latest theoretical, methodological and technological achievements of domestic and foreign science, as well as to consolidate practical skills, apply modern methods of scientific research, processing and interpretation of experimental data in the dissertation research.

7.22 The content of the research practice is determined by the topic of the doctoral dissertation.

7.23 The main results of the doctoral student's research are published in scientific, scientific-analytical and scientific-practical publications in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 31, 2011 No. 127 "On approval of the Rules for awarding degrees".

7.24 Publications should reflect the main provisions submitted for the defense of a doctoral dissertation.

7.25 The results of the RWD at the end of each period of their passage are issued in the form of a brief report, which includes a review of the supervisor, an extract from the minutes of the department meeting, a list of sources used and a certificate of verification for anti-plagiarism.

7.26 The main criterion for the completion of the educational process in doctoral studies is the development of at least 180 credits by a doctoral student.

7.27 Departments of the university that implement master's and doctoral degree programs independently develop each educational program:

– modular educational program;

– working curriculum;

– educational and methodological complexes of disciplines that make up the educational component of the educational program, including syllabuses;

– the practice program;

– RWM, ERWM, RWD program;

7.28 The educational programs of the Master's degree are developed by the departments independently on the basis of professional standards and principles of the formation of students' competencies.

7.29 The educational programs of doctoral studies are developed by departments independently and should be based on the experience of highly rated foreign universities and research centers implementing accredited doctoral training programs.

7.30 Doctoral and master's students are trained on the basis of an individual work plan, which is compiled under the guidance of scientific consultants and supervisors.

7.31 The individual work plan of a doctoral student and a master's student is drawn up for the entire period of study and includes the following sections:

- IC (if necessary, they are updated annually);
- research (experimental research) work (topic, research direction, timing and reporting form);
- practice (program, base, deadlines and reporting form);
- the topic of the doctoral dissertation /the topic of the master's thesis (project) with justification and structure;
- the plan of implementation of the doctoral dissertation /master's thesis (project);
- plan of scientific publications, internships.

7.32 Within two months after enrollment, each master's student is assigned a supervisor from teachers with the degree of "Candidate of sciences", or "Doctor of Sciences", or "Doctor of Philosophy (PhD)", or "doctor by profile", or academic degree "Doctor of Philosophy (PhD)", or "doctor by profile", or "Doctor of Philosophy (PhD)", or "doctor by profile", corresponding to the profile of the requested direction, with the experience of scientific and pedagogical work of at least three years.

7.33 Within two months after enrollment, a doctoral student is assigned to supervise a doctoral dissertation from among the teachers with the academic degree "candidate of sciences", or "doctor of sciences", or "doctor of philosophy (PhD)", or "doctor by profile", or an academic degree "Doctor of Philosophy (PhD)", or "Doctor of Specialization", or the degree of "Doctor of Philosophy (PhD)", or "Doctor of Specialization", experience of scientific and pedagogical work at least three years.

7.34 The direction of the doctoral student's dissertation research should be related to national priorities or state programs, or programs of fundamental or applied research.

7.35 The scientific guidelines and research topics of undergraduates on the basis of the decision of the Academic Council are approved by the rector's order within the first 2 months after enrollment.

The topic of the doctoral dissertation is determined during the first semester and approved by the decision of the Academic Council.

7.36 Individual plans of undergraduates are approved no later than 2 months from the moment of enrollment for the entire period of study.

7.37 Scientific supervisor of the master's thesis /project:

– provides assistance to a master's student in developing a work schedule for the entire period of the master's thesis /project;

– issues a task for completing a master's thesis/project;

– is responsible for the objective and effective completion of the master's scientific internship;

– recommends to the undergraduate the necessary basic literature, reference and archival materials, standard projects and other sources;

– within the framework of the research activity of the undergraduate, he conducts contact work with him on various types of it related to the study of the chosen scientific topic and the writing of the master's thesis, as well as carries out ongoing monitoring of compliance by the undergraduate with the calendar schedule of the master's thesis / project;

– sets the scope of all sections of the master's thesis/project and coordinates the work of the undergraduate.

7.38 Master's and doctoral studies are conducted by teachers who have a scientific /academic degree, academic title, taking into account compliance with the qualification requirements for educational activities.

7.39 Requirements for a scientific consultant of the University:

– actively engage in research work in this branch of science;

– have experience in the scientific management of candidate/doctoral dissertations;

– to ensure the implementation of the doctoral dissertation and compliance with the principles of academic integrity, and timely submission of the dissertation work for defense.

7.40 Requirements for foreign consultants:

– have experience in the scientific management of doctoral dissertations;

– actively engage in research work in this branch of science, have publications in rating journals.

– represent a leading foreign educational or scientific institution with a modern material and technical base and access to international information networks and library collections.

7.41 Scientific consultants for doctoral dissertation:

– participate in the development of an individual work plan of a doctoral student and monitor its implementation;

– they give out a task for completing a doctoral dissertation;

– assist in the development of a work schedule for the entire period of the doctoral dissertation;

– form the program of the doctoral student's research work;

– they recommend to the doctoral student the necessary basic literature, reference and archival materials, standard projects and other sources on the topic;

– they carry out consultations, during which they carry out ongoing monitoring of compliance by the doctoral student with the calendar schedule of the doctoral dissertation;

– establish the scope of all sections of the doctoral dissertation and coordinates the work of the doctoral student;

– give an objective assessment of the dissertation before submitting it to the expert commission;

– the doctoral student is introduced to the dissertation defense procedure;

– they are planning scientific internships (including foreign ones) of a doctoral student.

7.42 For the implementation of the master's and doctoral programs, the University provides the material and technical base (classroom fund, computer classes, laboratories, stock materials) corresponding to the current sanitary and technical standards for conducting all types of theoretical and practical training provided for in the curriculum, as well as the effective implementation of the dissertation.

7.43 Undergraduates and doctoral students are given the opportunity to publish the results of scientific research in the journals "Proceedings of the University", Collections of works of various conferences regularly held in Kazakhstan, as well as periodicals of other higher educational institutions, specialized journals (by branches of knowledge) of Kazakhstan and foreign countries.

7.44 The organization of the educational process in the master's and doctoral studies of the University is carried out on the basis of the curriculum for the EP, the academic calendar, the schedule of training sessions.

7.45 The academic hour of one lesson at the University is 50 minutes of classroom time.

7.46 Attendance of academic classes according to the schedule is mandatory, and absences of classes that have arisen for various reasons should be worked out.

7.47 The trajectory of study and the list of disciplines are reflected in the individual curriculum of a master's and doctoral student, which is based on the CED.

7.48 When making changes or adjustments to the subject of research, clarifications are made to the IC of a doctoral student or a master's student.

7.49 The academic period is set in the card in the form of a semester and is 15 weeks;

7.50 The boundary control is carried out twice in each discipline and according to the RW of a master's or doctoral student at the 7th and 14th weeks of the semester. The assessments of the boundary control cannot be changed for any reason, including illness, except in special cases, for which the permission of the head of the DPE must be obtained on the basis of the student's application, objective documents.

7.51 The duration of the intermediate certification/final control is 2-3 weeks after each semester.

7.52 The duration of the holidays in the academic year should be:

- at least 7 weeks, except for the final course (master's degree);

- at least 5 weeks (doctoral studies).

7.53 Academic transfer of undergraduates and doctoral students from course to course is carried out if they perform all types of educational and scientific work provided for by an individual plan in a high-quality and timely manner and gain an average academic performance score (GPA) not lower than the transfer score established at the university.

7.54 During the interim certification, final control is carried out in all the studied disciplines and, taking into account the assessments of current academic performance (arithmetic mean of the assessments of the current and boundary controls), the final grades for the disciplines are displayed. In the final assessment of the discipline, the share of the assessment of current academic performance should be at least 60%, and the share of the assessment of the final control should be at least 40%.

7.55 A master's student or a doctoral student who has received an unsatisfactory assessment according to the final control has the right to re-listen and pass the corresponding discipline of the theoretical training course during the subsequent academic period on a paid basis.

7.56 It is not allowed to retake a positive assessment on the final control in order to increase it during the same period of intermediate certification.

7.57 In case of early development of the educational program:

- master's degree and fulfillment of the requirements stipulated for it, a master's degree is awarded to a master's degree regardless of the period of study.

- doctoral studies and successful defense of a dissertation, a doctoral student is awarded the degree of Doctor of PhD regardless of the duration of study.

7.58 A master who has completed a specialized master's degree can engage in scientific and pedagogical activities only if he develops pedagogical profile programs and passes pedagogical practice. This cycle of disciplines is mastered during an additional academic period, at the end of which he is issued a corresponding certificate of the established sample to the main diploma.

7.59 Undergraduates and doctoral students who have mastered the full course of theoretical training of the educational program, but have not completed the research component, are given the opportunity to re-master the credits of the research component and defend their dissertation in subsequent years on a paid basis.

7.60 A master's student who has mastered the full course of theoretical training of the master's degree program, but has not defended his master's thesis (project) within the prescribed period, is given the opportunity to defend his dissertation (project) / in subsequent years on a paid basis.

7.61 A doctoral student who has mastered the full course of theoretical training of the doctoral educational program, who has completed RWD, but has not defended his doctoral dissertation, the results of training and academic credits are assigned and given the opportunity to defend his dissertation within one year after graduation on a free basis, and in subsequent years on a paid basis in the amount of at least 4 academic credits.

8 Organization of scientific internship

8.1 Scientific internship of postgraduate students is an integral part of the Master's and doctoral degree programs.

8.2 The purpose of the scientific internship is to increase the competence of students of postgraduate education, the formation and consolidation of their professional knowledge, skills and abilities obtained as a result of theoretical training, as well as the use of international experience, modern equipment in conducting scientific research and the expansion of professional, organizational competencies in the field of the chosen field of training.

8.3 Scientific internship may be provided:

– conducting scientific research and research within the framework of dissertation topics/projects;

– theoretical training independently or as part of a group;

– carrying out practical work of a scientific and research nature;

– analytical work in reading rooms, library and other collections on the topic of research;

– conducting consultations on the topic of dissertations/projects;

– participation in scientific conferences, seminars, round tables and other types of work carried out during the scientific internship.

8.4 Scientific internship of postgraduate students is carried out on the basis of contracts concluded with enterprises / organizations / institutions, universities and scientific organizations of the Republic of Kazakhstan / foreign countries within the framework of Agreements and Memoranda of cooperation in the field of education and science.

8.5 Undergraduates and doctoral students of the University, directed in accordance with the Contracts/Agreements/Memoranda of cooperation in the field of education and science on academic mobility, the implementation of double-degree education and the implementation of joint educational programs with domestic / foreign universities and organizations, including the SCO University, have the opportunity to automatically (in parallel) undergo a scientific internship at a partner university.

8.6 The terms of the scientific internship are considered:

- for undergraduates no more than 1 time for the entire period of study:

the duration of training is 1 year (profile) – at least 7 days;

the duration of training is 1.5 years (profile) – at least 10 days;

the duration of training is 2 years (scientific and pedagogical) - at least 14 days;

- for doctoral students - no more than 2 times during the entire period of study:

the training period is 3 years - up to 3 months.

8.7 In case of non-completion of a scientific internship, a student of postgraduate education is not allowed to the final certification.

8.8 The organization of the departure of students of postgraduate education for a scientific internship is carried out by the graduating department, DPE, CIC&AM.

8.9 The organization of the scientific internship is carried out by the graduating department on the basis of a plan developed by the supervisor/consultant and the student. The Master's/doctoral student is responsible for its implementation (Appendix A).

8.10 Functions of structural divisions:

8.10.1 CIC&AM functions:

– carries out preliminary preparation of the list of universities in which it is planned to conduct a scientific internship, in accordance with the directions of training of undergraduates/doctoral students;

– submits to the rector draft agreements on cooperation with foreign universities, research centers, supervises their conclusion;

– conducts business correspondence with representatives of partner universities, scientific consultants of students to discuss the conditions of the internship;

– based on the submission of the relevant package of documents for the scientific internship, it forms an order for sending students to foreign enterprises/ organizations/ institutions, universities and research centers.

8.10.2 Functions of the graduating department:

– makes a reasonable choice of an enterprise / organization / institution, a domestic / foreign university or a scientific center based on the conformity of their activities, the direction of scientific research of the department and dissertations / projects of students, forms a memo (Appendix B) and cost calculation (Appendix C);

– carries out the preparation, execution and signing of a contract for the passage of a scientific internship of students;

– discusses and approves at the meeting of the department the plan of scientific internship of each student (Appendix A);

– conducts instruction, consultations, meetings of students of postgraduate education on the issues of scientific internship;

– supervises the organization of the departure of students of postgraduate education for a scientific internship;

– considers at the meeting of the department (seminar) the scientific results of the internship with an assessment of their significance in the direction of research, the use of the results obtained in the research papers on the topic of the dissertation / projects and evaluates the possibility of their publication;

– makes a decision on the implementation of the scientific internship plan;

– supervises the submission by students of reports on scientific internships to the department for undergraduates, to the department and DPE – for doctoral students.

8.10.3 Functions of the student's supervisor/consultant:

– supervises the preparation by students of a scientific internship plan and its coordination with a foreign supervisor/consultant (if necessary);

– is responsible for evaluating the scientific novelty of the student's internship results, their use in the dissertation work/project;

– selects an enterprise/organization/institution, university or scientific organization, a supervisor who has significant scientific achievements (works) in the field of scientific research of the student;

– monitors and evaluates the effectiveness of scientific guidance by a foreign consultant and considers the possibility of joint publication activity (for doctoral students);

– supervises the use of the results of the scientific internship of students in the dissertation work/project.

– based on submissions (memos) graduates of departments, forms a draft plan of scientific internships, students and submits it for approval to the rector no later than March and November of the current year;

– based on the submission of the relevant package of documents for the scientific internship, it forms an order for sending students to enterprises / organizations/ institutions, universities and research centers of the Republic of Kazakhstan;

– supervises the submission of reports on the results of the scientific internship by students.

8.10.4 Functions of the Accounting Department of the University:

– supervises the compilation of the calculation of the costs of the student's scientific internship (Appendix C);

– submits to the rector official documentation on the return of financial resources by students in case of their misuse or failure to provide supporting documents on the passage of a scientific internship;

– accepts a report from students on the use of funds allocated for a scientific internship.

8.11 Students of postgraduate education for the purpose of leaving for a scientific internship form the following documents:

– заявление application addressed to the Vice-rector for Academic Affairs of the University for an internship with the visas of the supervisor/consultant and the head of the graduating department (Appendix D);

– attached to the application: a copy of the invitation from the enterprise / organization / institution, RK / foreign university or scientific center, issued on the official letterhead of the organization;

– a memo addressed to the vice-rector for Academic Affairs signed by the head of the graduating department;

– cost calculation (if necessary).

8.12 The referral of students of postgraduate education for a scientific internship is issued by the order of the Vice-rector for Academic Affairs of the University (Appendix E).

8.13 At the end of the scientific internship, a student of postgraduate education must:

– within three days from the date of arrival, submit an advance report with supporting documents to the accounting department of the University;

– представить within ten days from the date of arrival, submit a detailed report on the results of the internship in accordance with the approved internship program, certified by the student's supervisor/consultant and the head of the DPE (Appendix G, H).

8.14 Attached to the report are:

– copies of the certificate (original upon presentation of the document confirming the development of the scientific internship program);

– feedback from a foreign scientific consultant of a doctoral student on the results of the internship (preferably);

– feedback from the supervisor from the host party on the results of the internship of the undergraduate (if necessary);

– an extract from the minutes of the meeting of the department and/or an extract from the minutes of the meeting of the STC on the review of the results of the doctoral student's scientific internship;

– extract from the minutes of the meeting of the department on the results of the master's scientific internship.

8.15 Students of postgraduate education who go on a scientific internship have the right to:

– to conduct high-quality scientific research under the internship program;

– attend all types of theoretical classes within the framework of the internship program, including visits to enterprises and other organizations whose activities are related to dissertation research;

– to carry out independent work in the library collections of the host university or other organizations;

– take part in all types of research work, conferences provided for by the scientific internship program;

8.16 When passing a scientific internship, students of postgraduate education are required to:

– represent their university with honor and dignity in the host country;

– observe the rules of conduct, culture of speech and ethical norms when communicating with teachers, staff and other persons, not to allow familiar treatment and to keep subordination in relations with teachers and employees of the host party;

– treat training and all forms of knowledge control in good faith, to comply with accepted training standards;

– observe political correctness when carrying out activities on the territory of the partner university or the host country;

– show respect and tolerance for the customs and traditions of other peoples, take into account the cultural and other characteristics of various ethnic, social groups and religious confessions;

– monitor the culture of their behavior, not to allow the use of profanity;

– maintain the accepted norms of the hostel;

– keep a strict eye on their appearance;

– comply with the requirements and rules established by the host party;

– personally bear responsibility for any violations.

8.17 Students of postgraduate education during the period of scientific internship are prohibited:

– from allowing any form of academic dishonesty (absenteeism, tardiness and skipping scheduled events);

– from being in a state of alcoholic, narcotic or toxic intoxication;

– from leaving on other matters not provided for by the program of scientific internship, without the permission of the supervisor from the host party;

– from taking part in any public events of another country, including rallies, processions, etc.

9 Research work of undergraduates

9.1 The purpose of the research work is to prepare a master's student for independent research work, the main result of which is the writing and successful defense of a master's thesis.

9.2 Research work in the scientific and pedagogical magistracy should:

- correspond to the main problems of the EP, on which the master's thesis is being defended;

- be relevant, contain scientific novelty and practical significance;

- be based on modern theoretical, methodological and technological achievements of science and practice;

- be carried out using modern methods of scientific research;

- contain research (methodological, practical) sections on the main protected provisions;

- be based on the best international experience in the relevant field of knowledge.

9.3 Experimental research work in a specialized master's degree program should:

- correspond to the main problems of the EP, on which the master's project is defended;

- be based on modern achievements of science, technology and production and contain specific practical recommendations, independent solutions to management tasks;

- be carried out using advanced information technologies;

- contain experimental research (methodological, practical) sections on the main protected provisions.

9.4 The scientific work of undergraduates is organized directly at the graduate departments and/or in the scientific laboratories of the university and enterprises, including enterprises of the Corporate University, according to the program of research/ experimental research work of undergraduates developed by the graduate departments of the university on the basis of this Provision and taking into account the specifics of training undergraduates for a specific EP.

9.5 The program of research/experimental research work of undergraduates (on a specific EP) should include the following sections and their description:

- general provisions;
- the purpose and objectives of the research/experimental research work of undergraduates in EP;
- the content of the research/experimental research work of undergraduates in EP;
- dates and main stages of RWM/ERWM;
- management and control of RWM/ERWM.

9.6 The graduating department, where the master's program is implemented, defines special requirements for the preparation of a master's student in the research part of the program. Special requirements include:

- knowledge of modern problems of this branch of knowledge;
- knowledge of the history of the development of a specific scientific problem, its role and place in the studied scientific direction;
- the presence of specific specific knowledge on the scientific problem studied by the undergraduate;
- the ability to practically carry out scientific research, experimental work in a particular scientific field related to the master's program (master's thesis);
- ability to work with specific software products and specific Internet resources, etc.

9.7 Graduate departments that train undergraduates should ensure that the topics of master's theses correspond to the directions of research activities of the department and the university and attract undergraduates to participate in research projects carried out by graduate departments and research institutes of the university.

9.8 Graduating departments should monitor the performance of their research work by undergraduates at the end of each semester, discuss the results of the work of undergraduates every semester at a meeting of the department or a methodological seminar and give them an assessment. The effectiveness of scientific internships of undergraduates is discussed at separate meetings of graduate departments.

9.9 The supervisor is obliged to ensure the organization of RWM, its high-quality scientific and methodological formulation.

9.10 RW of undergraduates is carried out in accordance with their individual work plans, which are compiled with the direct participation of the supervisor.

9.11 Responsibility for the timely, complete and high-quality compilation and execution by undergraduates of all types of work reflected in the individual work plan is borne by both undergraduates and supervisors of undergraduates.

9.12 RW is carried out within the framework of independent work with a teacher and independent work of a master's student.

9.13 RW as part of master's degree programs contributes to the formation and education of highly qualified specialists who are ready to perform various types of innovative activities.

9.14 The purpose of the master's research work is:

- obtaining new results that are important for theory and practice in this subject area;
- mastering the methodology of scientific creativity, obtaining the skills of conducting scientific research as part of a creative team;
- mastering theoretical and experimental methods of studying objects (processes, effects, phenomena, structures, projects) in this subject area.

9.15 The objectives of the master's research work are:

- organization and systematization of undergraduates' knowledge in order to use their creative and intellectual potential to solve urgent problems of science and technology;
- formation of undergraduates' interest in scientific creativity, teaching them methods and ways to independently solve research problems;
- organization of training of undergraduates in theory and practice of scientific research;
- development of creative thinking and independence among undergraduates, deepening and consolidation of theoretical and practical knowledge obtained;
- preparation of the most capable and successful undergraduates with a scientific background and knowledge of a foreign language for admission to doctoral studies in the training EP or in a related EP.

9.16 The research work of a master's student can be carried out in the following forms:

- performance of specific tasks of the supervisor in accordance with the approved plan of research work (compilation of a bibliography on the topic of the master's thesis, creation of a design of mechanisms, methods for carrying out work, organization and conduct of experimental research on the problem, collection of empirical data and their interpretation on the topic of the master's thesis, etc.);
- participation in methodological seminars on research topics;
- participation in interdepartmental seminars, theoretical seminars (on the subject of research), as well as in the scientific work of the department;
- presentation at conferences of various levels, including international;
- preparation and publication of the abstract of the dissertation, theses of reports, scientific articles on the topic of the dissertation;

- participation in research projects carried out at the department within the framework of research programs;

- participation in the work of scientific and technical councils for the implementation of the results of scientific research into production;

- preparation and protection of performance RWM/ERWM reports;

- подготовка и защита магистерской диссертации.

9.17 The forms of research work of undergraduates are specified and supplemented in the individual work plan of undergraduates, depending on the specifics of the master's program, the topics of master's thesis.

9.18 The form of reporting on the ongoing research/ experimental research work of undergraduates is determined by the supervisor according to the planned forms of RWM/ERWM (chapter, sub-paragraph of the master's thesis, scientific article, report at a scientific conference, experimental sample, research results, methodological recommendations, survey, participation in the project, etc.)

9.19 The main stages of the implementation of the master's research work:

- choosing the direction of research and the topic of the master's thesis;

- definition of the main activities and activities for the implementation of research work, including a master's thesis;

- conducting research work;

- preparation of reports on the results (results) of the master's RW;

- determination of the general level of proficiency in competencies formed during the implementation of RWM;

- passing the procedure for checking reports on the results (results) of research for borrowing without reference to the author and the source of borrowing (checking reports for plagiarism);

- defense of the master's thesis.

9.20 24 credits are allocated for the implementation of the research work of undergraduates of the scientific and pedagogical direction, including the internship and the completion of the master's thesis.

9.21 The result of the master's research work in the 1st semester is:

- the topic of the dissertation approved by the Academic Council of the University;

- a developed and approved individual master's work plan with an indication of the main activities and deadlines for their implementation;

- the formulation of the goals and objectives of the dissertation research;

- the definition of the object and subject of research;

- the justification of the relevance of the chosen topic and the characteristics of the current state of the problem being studied;

- the characteristic of the methodological apparatus that is supposed to be used,

- the selection and study of the main literary sources that will be used as a theoretical basis for research. The basis of the literature review should be sources that

reveal the theoretical aspects of the issue under study, primarily scientific monographs and articles of scientific journals;

- the completion of at least 25% of the volume of theoretical work on the research topic;

- the implementation of other activities provided for by the individual master's work plan;

- the passage of a semester certification based on the results of the RWM.

9.22 The result of the master's research work in the 2nd semester is:

- the systematization of theoretical material on the topic of the master's thesis, which is based on current research publications and contains an analysis of the main results and provisions obtained by leading experts in the field of research, an assessment of their applicability, as well as the author's alleged personal contribution to the development of the topic;

- the study and collection of practical material for a master's thesis, including the development of a methodology for data collection, methods for processing results, and assessment of their reliability;

- the completion of at least 50% of the volume of theoretical and experimental work on the research topic;

- direct participation in the research work of the department, including the implementation of the scientific theme of the cathedral and the organization of scientific, scientific and methodological seminars;

- the implementation of other activities provided for by the individual master's work plan;

- the passage of an annual assessment based on the results of RWM with the issuance of points.

9.23 The result of the master's research work in the 3rd semester is:

- the processing and analysis of the actual material for the dissertation work, including the assessment of its sufficiency to complete the work on the dissertation, the development and construction of graphic images and other illustrations on the research topic;

- the completion of at least 75% of the volume of theoretical and experimental work on the research topic;

- the publication of at least the 1st publication and/or the 1st presentation at a scientific and practical conference;

- the implementation of other activities provided for by the individual master's work plan;

- the passage of a semester certification based on the results of RWM.

9.24 The result of the master's research work in the 4th semester is:

- the preparation of the final text of the master's thesis and its design, the implementation of 100% of the volume of theoretical and experimental work on the research topic;

- the passage of a semester certification based on the results of RWM.

9.25 The results of the experimental research work of a master's student in the 1st semester is:

- the project topic approved by the Academic Council of the University;
- the developed and approved individual work plan of a master's student with an indication of the main activities and deadlines for their implementation;
- the definition of goals, objectives, scope, subject of research;

9.26 The result of the experimental research work of a master's student in the 2nd semester is:

- the study and collection of practical material for a master's project, including the development of a methodology for data collection, methods for processing results, and assessment of their reliability;
- the completion of at least 50% of the volume of theoretical and experimental work on the research topic;
- the implementation of other activities provided for by the individual work plan of the undergraduate;

9.27 The results of the experimental research work of a master's student in the 3rd semester is:

- the processing and analysis of the actual material for the master's project, including the assessment of its sufficiency to complete the work on the project, the development and construction of graphic images and other illustrations on the topic of research;
- the completion of 100% of the volume of theoretical and experimental work on the research topic;
- the publication of at least the 1st publication and/or the 1st presentation at a scientific and practical conference;
- the implementation of other activities provided for by the individual work plan of the undergraduate;
- the passage of a semester certification according to the results of the ERWM.

9.28 Upon completion of the scientific and pedagogical master's degree, the graduate student must be competent:

- in the field of research methodology;
- in the field of scientific and scientific-pedagogical activity in universities;
- in modern educational technologies;
- in carrying out scientific projects and research in the professional field;
- in ways to ensure constant updating of knowledge, expansion of professional skills and abilities.

9.29 Upon completion of the profile master's degree, the master's student must be competent:

- in the field of research methodology under the EP;
- in the field of modern problems of the world economy and the participation of national economies in micro-economic processes;
- in the organization and management of the company's activities;

- in the implementation of industrial relations with various organizations, including public service bodies;

- in ways to ensure constant updating of knowledge, expansion of professional skills and abilities.

9.30 A report on the research work of a graduate student with a supervisor's visa must be submitted to the graduating department.

9.31 At the end of each academic period, a master's student must publicly report on the results of the implementation of his individual work plan at a meeting of the commission on academic attestation of the graduating department.

9.32 The final result of the research or experimental research work of a graduate student is a master's thesis or a master's project.

10 Research work of doctoral students

10.1 The purpose of the research work is to prepare a doctoral student who knows the methodology of scientific knowledge of processes and is able to apply scientific methods in the study of problems of modern production, the final result of whose research activity is the writing and successful defense of a doctoral dissertation.

10.2 Tasks of research work:

- to prepare highly qualified specialists of modern formation with broad fundamental knowledge;

- to develop the abilities and abilities of doctoral students to critically analyze and master theoretical concepts in order to implement them into practice and with subsequent testing at the international level;

- to form doctoral students' abilities for professional growth and self-development, skills of independent creative mastery of new knowledge throughout their active life;

- to provide an opportunity for doctoral students to choose an individual trajectory of education.

10.3 The university where the doctoral program is implemented defines special requirements for the preparation of a doctoral student in the research part of the program. Special requirements include:

- knowledge in the field of scientific and managerial activity in the conditions of constant updating of knowledge and modernization of society;

- conducting independent research activities on problems and disciplines;

- the ability of practical processing and transmission of information using modern technical means;

- ability to predict the directions of technical and scientific development of the country;

- possession of modern specialized skills and methods necessary for making effective decisions in the field of engineering and technology.

10.4 Scientific consultants are obliged to ensure the organization of research and development, its high-quality scientific and methodological formulation.

10.5 The doctoral student's scientific consultants are responsible for the quality of the RWD organization.

10.6 The main content of RWD is reflected in the individual plan of the doctoral student.

10.7 RWD is carried out within the framework of independent work with a teacher and independent work of a doctoral student.

10.8 RWD as part of the main educational programs of doctoral training areas contributes to the formation of highly qualified specialists capable of solving scientific and practical issues in engineering and technology.

10.8 The purpose of the doctoral student's research work is:

- to obtain new scientifically based theoretical and (or) experimental results that allow solving a theoretical or applied problem, or are a major achievement in the development of specific scientific areas;
- to master modern theoretical, methodological and technological achievements of science, technology and production, based on modern methods of data processing and interpretation using computer technology and performed using modern research methods;
- to offer specific practical recommendations, an independent solution of a complex, functional nature;
- to master the best international experience in the relevant field of knowledge.

10.9 The objectives of the doctoral student's research work are:

- the organization, planning and implementation of the research process;
- to analyze, evaluate and compare various theoretical concepts in the field of research and propose appropriate conclusions;
- the ability to analyze and process information from various sources;
- to conduct independent scientific research characterized by academic integrity, based on modern theories and methods of analysis;
- to generate their own new scientific ideas and communicate to the scientific community, expanding the boundaries of scientific knowledge;
- the effective use of international best practices when working on a doctoral dissertation.

10.10 The scientific component of the educational program is based on the scientific background of a doctoral student and is formed from the research work of a doctoral student, scientific publications and the writing of a doctoral dissertation.

10.11 Requirements for the research work of a student under the PhD program:

- correspond to the main problems of the EP, on which the doctoral dissertation is being defended;
- be relevant, contain scientific novelty and practical significance;
- be based on experimental studies using modern devices and devices of machines, technological complexes;

- be based on modern theoretical, methodological and technological achievements of science and practice;

- be based on modern methods of data processing and interpretation using computer technology;

- be carried out using modern methods of scientific research;

- contain research (methodological, practical) sections on the main protected provisions.

10.12 The research work of a doctoral student, including the execution of a doctoral dissertation, amounts to 123 credits.

The research work of a doctoral student can be carried out in the following forms:

- performing tasks of a scientific consultant in accordance with the approved research work plan;

- participation in the research work of the department;

- participation in scientific and methodological seminars held by the university, the department;

- the use of modern methods of data processing and interpretation using computer technology;

- participation in the development of project documents and other provisions related to the subject area of scientific research;

- participation in university-wide scientific research, including joint research projects and programs;

- preparation and defense of a doctoral dissertation.

10.13 The forms of research work of doctoral students are specified and supplemented in the individual work plan of doctoral students, depending on the specifics of the doctoral program, the topics of doctoral dissertations.

10.14 During the first semester of study, under the guidance of scientific consultants, a doctoral student develops and approves an individual work plan, which includes sections:

- individual curriculum;

- individual RWD plan;

- internship plan;

- the topic of the dissertation with justification and structure;

- dissertation completion plan;

- scientific internship plan.

10.15 The result of the doctoral student's research work in the 1st semester is:

- the topic of the dissertation approved by the Academic Council of the University;

- a dissertation work plan with an indication of the main activities and deadlines for their implementation;

- the selection and study of the main literary sources that will be used as a theoretical basis for research;

- the definition of the object, the subject of research;
- the setting of the goals and objectives of the doctoral dissertation;
- the compilation (determination) of the possible (approximate) scientific novelty of the study;
- the choice of methods for processing and interpreting data using computer technology;

10.16 The result of the doctoral student's research work in the 2nd semester is:

- a detailed analysis of modern scientific and technical literature on the topic of the dissertation (concepts, opinions, theories of leading domestic and foreign scientists; review of existing technical and technological complexes of normative documents to them; consideration of the historical aspect of the development of the problem; coverage of world experience on the chosen topic), as well as the author's personal contribution to the development of the topic. Completion of at least 30% of the volume of theoretical and experimental work on the topic of dissertation research;
- the presence of at least 1 scientific publication in the materials of the international conference;
- the passage of a semester certification based on the results of the RWD.

10.17 The result of the doctoral student's research work in the 3rd semester is:

- the collection of factual material for the dissertation work, including the development of a methodology for data collection, methods for processing results, assessment of their reliability and sufficiency to complete the work on the dissertation. Performing at least 50% of the theoretical and experimental work on the topic of the dissertation research;
- the passage of a foreign scientific internship (if necessary);
- the presence of at least 1 scientific publication in the publications recommended by the Committee, entered in the Register of the Ministry of Education and Science of the Republic of Kazakhstan;
- the presence of at least 1 scientific publication in the materials of the international conference;
- the passage of a semester certification based on the results of the RWD.

10.18 The result of the doctoral student's research work in the 4th semester is:

- the preparation of the final text of the 1st and 2nd chapters of the doctoral dissertation, while the practical part must necessarily include a deep and comprehensive analysis of the current state of the subject of research using modern methods of data processing and interpretation using computer technology. Completion of at least 70% of the volume of theoretical and experimental work on the topic of dissertation research;
- the presence of at least 1 scientific publication in the publications recommended by the Committee and included in the Register of the Ministry of Education and Science of the Republic of Kazakhstan, the presence of at least 1 scientific publication in the materials of a foreign conference;

- the preparation for publication of at least 1 scientific publication on the topic of the dissertation in international peer-reviewed scientific journals in the areas of training, in publications included in a certain quartile according to Journal Citation Reports (hereinafter - JCR of Clarivate Analytics, or in publications that have the CiteScore percentile in the Scopus database;

- the completion of an annual assessment based on the results of the Research and development work with the issuance of points.

10.19 The result of the doctoral student's research work in the 5th semester is:

- the completion of at least 90% of the theoretical and experimental work on the topic of the dissertation research, while the final part should contain the mechanism developed by the author for solving the studied problem, predictive estimates and options for the development of the object of research, promising measures to improve the efficiency of its functioning, etc.

- the presence of at least 1 scientific publication in the materials of the international conference;

- the presence of at least 1 scientific publication in the publications recommended by the Committee and included in the Register of the Ministry of Education and Science of the Republic of Kazakhstan;

- the presence of at least 1 article in international peer-reviewed scientific journals in the areas of training, in publications included in a certain quartile according to Journal Citation Reports (hereinafter referred to as JCR of Clarivate Analytics, or in publications that have a CiteScore percentile index in the Scopus database on the topic of the dissertation and entered in the Register of the Ministry of Education and Science of the Republic of Kazakhstan;

- the passage of a foreign scientific internship (if necessary);

- the passage of a semester certification based on the results of the research work.

10.20 The result of the doctoral student's research work in the 6th semester is:

- the publication of the abstract of the dissertation in a periodical journal, including "University Proceedings" KTU;

- the preparation of the final text of the doctoral dissertation (100% completion) and the registration of the results of scientific research.

10.21 The main tasks of the control performed by the scientific consultant are to evaluate the doctoral student's research work, review the implementation of the doctoral student's individual plan, determine the actual state of the dissertation research and its compliance with the requirements for doctoral dissertations, as well as to develop proposals for correcting the correction of the organization of RW in order to achieve new knowledge in the field of research.

10.22 Planned control is carried out by a scientific consultant during the academic year and provides for a written report on the results obtained with its discussion at a methodological seminar, grading based on the results of the RW for the semester.

10.23 Current control is carried out at any stage of the work and is carried out by scientific consultants of doctoral students. The doctoral student is obliged to provide the scientific consultants with the necessary materials and documents for the control.

10.24 The results of the planned control are taken into account for the subsequent conclusion about the work of the doctoral student in the semester.

10.25 A negative conclusion can be accepted in the following cases:

- failure of the doctoral student to submit the necessary reporting materials within the prescribed period without a valid reason;
- incomplete execution of RW blocks;
- lack of significant scientific and practical results (according to the conclusion of the methodological seminar of the graduating department) with the involvement of production specialists.

10.26 A report on the research work of a doctoral student with a scientific consultant visa must be submitted to the graduating department and at DPE.

10.27 The doctoral student is obliged at the end of each academic period to publicly report on his research work at the methodological seminar of the graduating department, and (or) at the faculty council. Based on the results of the report at the graduating department (faculty council), a decision is made to give an assessment on a scale of 0-100 points and to master (not master) the appropriate number of credits for the doctoral student's research work.

10.28 Prior to the certification of the annual results of research and development, doctoral students of 1, 2 and 3 years of study present a presentation of the results of research work at the scientific and technical seminar of the University according to the meeting plan, without fail, having received the decision of the methodological seminar of the department or the faculty council.

11 Final certification of undergraduates and doctoral students

11.1 Final certification of students is a procedure carried out in order to determine the degree to which they master the scope of academic disciplines provided for by the state mandatory standard of the appropriate level of education.

11.2 The final certification of undergraduates and doctoral students is carried out within the time limits stipulated by the academic calendar and working curricula of the EP in the form of registration and defense of a master's thesis (project) / writing and defending a doctoral dissertation.

11.3 Students who have completed the educational process in accordance with the requirements of the working curriculum and working curricula are allowed to complete the final certification.

11.4 Students of the final year who have not fulfilled the requirements of the working and individual curriculum and working curricula, remain for a second course of study without passing the summer semester.

11.5 The Chairman of the AC is appointed from among persons with an academic degree of doctor or candidate of sciences corresponding to the profile of graduates and not working in this organization.

11.6 The AC as its members includes persons with a doctor's degree, Candidate of Sciences or PhD degree corresponding to the profile of graduates.

11.7 The quantitative composition of the AC is approved by the order of the Rector of the University no later than December 31 and is valid for a calendar year.

11.8 The minutes of the meeting of the AC are kept by its secretary, approved as part of the AC from among the teaching and support staff or a teacher of the graduating department.

11.9 The defense of dissertations/projects is carried out at a meeting of the AC with the participation of at least 2/3 of its members.

11.10 Dissertation work, master's thesis/project, admitted for defense, is checked for borrowing without reference to the author and the source of borrowing in accordance with the SMSE of Postgraduate Education.

11.11 If the supervisor and/or the graduating department gives a negative conclusion "not allowed to defend" or "not recommended to defend" the master's student, the doctoral student does not defend the dissertation, master's thesis/ project.

11.12 A student who has passed the final certification, confirmed the assimilation of the relevant professional master's degree program and publicly defended a master's thesis/project by the decision of the AC is awarded a master's degree in the relevant educational program and a diploma with an appendix is issued.

11.13 The dissertation work for the degree of Doctor of Philosophy (PhD) must be an original qualification study on a specific educational program of the relevant branch of science, generating significant new knowledge based on a critical analysis of the totality of theoretical and practical achievements in this field, and meet the following requirements:

1) the paper should present experimental studies or solutions to an urgent problem that are of significant importance in this branch of science;

2) the work should be based on an innovative approach to the definition and solution of scientific tasks and/or applied problems;

3) the results of the research should represent a significant original contribution to the development of science and/or practice;

4) new solutions should be scientifically reasoned and reliable, have internal unity and testify to the personal contribution of the author to science;

5) the dissertation work must be written single-handedly.

11.14 The dissertation work (project) is issued in Kazakh or Russian. It is allowed to write a dissertation in a foreign language.

11.15 References to the authors and sources of cited or borrowed materials and/or results are mandatory in the dissertation work, including in relation to the scientific works of the applicant himself, performed by him both in co-authorship and individually. The applicant is obliged to note in the dissertation the co-authors (if

any) with whom the scientific papers were written or the ideas put forward were developed.

11.16 If documented plagiarism of any kind is found in the text of the dissertation (the use of borrowed material without reference to the author and the source of borrowing, the presentation of a work written by another author, etc.), the dissertation is withdrawn from consideration regardless of the stage of the attestation process (preliminary examination at the graduating department) without the right to re-defend it and appeal.

10.17 The results of scientific research presented in the dissertations of doctoral students (applicants) must necessarily be discussed at a meeting of the Ethical Commission of the University where the doctoral student studied. Following the results of the commission's work, the minutes of the meeting are submitted with the conclusion that there are no violations in the process of planning, evaluating, selecting, conducting and distributing the results of scientific research, including the protection of the rights, safety and well-being of research objects (wildlife and habitat objects).

12 Coordination and implementation

12.1 The DP must be coordinated with the QMR, with the executive director, the head of the CQM&A, the legal department. In the part where there is a financial need, it is agreed with the chief accountant and is made out in the "Coordination sheet" (Appendix H).

12.2 DP "Management of educational and organizational processes of postgraduate education" is transferred to the CQM&A for storage.

13 Replication and distribution of the document

This Documented procedure is provided to all structural divisions of the KTU and is part of the QMS documentation.

Appendix A
(informative)

Scientific internship
plan *(exemplary)*

Undergraduate _____ in_____
(full name) (university, country, city)
in the period from "___" _____ by "___" _____20___.
Topic of the dissertation/project: _____
according to the educational program
_____

№	The content of the work	Deadlines for implementation
1	Visiting the library, working with the library fund of the University, getting acquainted with the requirements for conducting experimental work on the topic of the dissertation, acquiring literature on the EP	
2	Discussion with the supervisor/consultant of the experimental research plan, experimental methods, processing of research results	
3	Preparation of equipment, tools, samples, devices for the experiment	
4	Research on the topic of the dissertation/project: 4.1 4.2 4.3	
5	Processing, interpretation of the results obtained, report generation and discussion of possible publication	
6	Discussion of the results of the scientific internship in the structural unit of the university /organization / enterprise /institution development of the inclusion of the material in the dissertation work / project and publication	

Scientific supervisor from KTU _____ full name
(signature)

Scientific supervisor from the receiving party (if necessary) _____ full name
(signature)

Master's student _____ full name
(signature)

Appendix B
(informative)

To the Vice-Rector for AA of
NLC “KTU”,
_____
_____

Official memo
(date)

I ask you to allow me to send a master's student of the ___course _____, studying in EP _____
(full name) (cipher, the name of EP)
(duration of training __) in _____
(university, country, city)
from "__" ____ 20__ to "__" _____20__ (____ days) for a scientific internship

Payment to the undergraduate / doctoral student for expenses for ___ days within _____tenge, I ask you to make at the expense of budgetary / extra-budgetary funds of the university. All other expenses are at the expense of the master's/doctoral student's own funds.

The calculation of internship expenses and a copy of the invitation from the host university/research center/organization/enterprise/institution are attached.

Ground: Resolution of the Government of the Republic of Kazakhstan dated October 31, 2018 No. 604 "On approval of state mandatory standards of education of appropriate levels of education", invitation letter, internship agreement, application of a master's student.

Head of the Dep. _____ _____ full name
(signature)

Appendix C
(informative)

«Approved by»
Executive Director of
NLC "KTU",
Dr. of Tech. Sci., Prof.
_____ (full name)
«___» _____ 20___

Cost Calculation

for an internship of a master's/doctoral student _____
(full name)

educational program _____
(cipher, name)

in_____
(country, city, name of university/research center/organization/enterprise/institution)

from "__" _____ to "__"_____20__

No	Expenditure item	Norm, tenge	Amount of expenses, tenge	Note
1	Educational expenses			According to the cash/non-cash settlement agreement
2	Daily expenses			According to the Regulation on reimbursement of costs to students for a scientific internship
3	Accommodation in the learning process			
4	Transportation costs			Tickets (air, rail, road transport)
	Total:			

Vice-Rector for AA _____ full name
Chief accountant _____ full name
Head of the DPE _____ full name
Head of the Dep. _____ full name
Accountant _____ full name
Economist _____ full name
Master's student _____ full name

Appendix D
(informative)

To the Vice-Rector for AA of
NLC “KTU”,
_____
_____
undergraduate/doctoral student gr. ___
student on the basis
of a state educational
grant/on a paid basis
_____
(indicate full name)

Application

I ask you to allow me to send you for a scientific internship in _____
(name of the university/enterprise/scientific organization)
from "__"_____ to "__"_____ 20___

I undertake to pay all expenses over _____ tenge at my own expense.

Head of the DPE _____ full name
(signature)
Head of the Dep. _____ full name
(signature)
Master's/Doctoral student _____ full name
(signature)

Appendix E
(informative)

Department of Postgraduate Education

About the internship of a master's/doctoral student

In accordance with the Regulations on Academic Policy and on the basis of the memo of the head of the department,

I ORDER:

Send _____(full name) –____ course master's/doctoral student**,** studying under the educational program _____, in _____ from "__" _____ to "__"_____ for a scientific internship. Pay the internship expenses within _____ tg. at the expense of budgetary/extra-budgetary funds of the university, all other expenses at the expense of the master's/doctoral student's own funds.

Vice-Rector for AA _____ (full name)
(signature)

The order makes:
Head of the DPE _____ (full name)
(signature)

Appendix F
(informative)

Approximate structure of the report of
a master's student on passing a scientific internship

Master's student_____

Educational program _____

Scientific supervisor from the receiving party _____

Place of internship _____

Internship terms from "__" _____ to "__" _____20 __

Number of days _____

1. Academic work

This section should contain a description:

- analysis of practical classes with the names of topics and the results of their conduct for dissertation work / projects, the names of scientific laboratories, their equipment, on which the research was carried out;
- annotations of the studied periodical scientific textbooks, publications and other sources, indicating the output data of the sources, the degree of importance of their study for the dissertation/project;
- assessment of the significance of the theoretical and practical lessons for the master's study;
- generalizations of the results of the conducted research with their personal assessment.

2. Research/practical work

- the results of scientific/practical research carried out in the scientific laboratories of the host organization, the equipment used, instruments, software products, physical, mathematical models;
- scientific conclusions or practical results that will be included in the dissertation work/project.

3. Participation in scientific seminars, conferences.

4. Feedback from the supervisor from the card and the host party about the internship (as needed).

5. Extract from the minutes of the meeting of the department.

Appendix G
(informative)

Approximate structure of the doctoral student's
report on the scientific internship

Doctoral student _____
Educational program _____
Scientific consultants _____
Place of internship _____
Internship terms from "__" _____ to "__" _____20 __
Number of days _____

1. Academic work

This section should contain a description:

- analytical review of theoretical classes with the names of topics, the results of their conduct, the places of their conduct, the number of hours;
- consultations on the topic of the dissertation work;
- assessment of the degree of importance of the theoretical and practical classes for scientific research;

2. Research work

This section should contain a description:

- conducted fundamental scientific research, research and their results;
- methods of research and the possibility of using research results;
- the generalizations made, the results of the conducted studies with their assessment.
- annotations of work with educational, periodical, scientific and other sources of literature indicating the output data of sources, the degree of importance of their study for ongoing scientific research;

3. Participation in scientific seminars, conferences.

4. Review of a foreign consultant (if available).

5. Feedback of the scientific consultant.

6. Minutes of the meeting of the department (scientific seminar)/ faculty council.

Appendix H
(mandatory)

F.04-2020

Coordination sheet

Position	Name	Date	Signature
QMR	Zhetessova G.S.	04.10.21	
Executive Director	Issagulov A.Z.	05.10.21	
Chief accountant	Abiltussupova A.H.	06.10.21	
Head of the LD	Ayazbayeva G.S.	07.10.21	
Head of the CQM&A	Zhunussova G.Ye.	07.10.21	

Appendix I
(mandatory)

F.05-2020

Familiarization sheet

Position	Name	Date	Signature

Appendix J
(informative)

Distribution list

No	Department name	Instance number	Date of receipt	Signature and decryption of the signature of the official	Note

Bibliography

[1] Grazhdanskiy kodeks Respubliki Kazakhstan. Obshchaya chast.

[2] Zakon Respubliki Kazakhstan «Ob obrazovanii» ot 27 iyulya 2007 goda № 319-III.

[3] Zakon Respubliki Kazakhstan «O nauke» ot 18 fevralya 2011 goda № 407-IV.

[4] Trudovoy kodeks Respubliki Kazakhstan ot 23 noyabrya 2015 goda № 414-V ZRK.

[5] Pravila organizatsii uchebnogo protsessa po kreditnoy tekhnologii obucheniya. Prikaz MON RK ot 20 aprelya 2011 goda № 152.

[6] Gosudarstvennyy obshcheobyazatelnyy standart obrazovaniya. Prikaz MON RK ot 31 oktyabrya 2018 goda № 604.

[7] Tipovyye pravila deyatelnosti organizatsiy obrazovaniya sootvetstvuyushchikh tipov. Prikaz MON RK ot 30 oktyabrya 2018 goda № 595.