 <p>СӘТБАЕВ УНИВЕРСИТЕТІ</p>	<p>NON-PROFIT JOINT STOCK COMPANY "KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY NAMED AFTER K.I. SATBAYEV"</p>	
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RULES
for organizing the online training
at NPJSC "Kazakh National Research
Technical University named after K. I. Satbayev"


R.029-03-03-02.1.01 – 2023

Almaty 2023

PREFACE

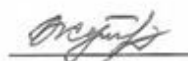
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1 Basic concepts

Online training is developed in order to contribute to optimizing the educational process of University, to develop the technical skills of students, to improve the quality of education through the use of modern technical means, electronic libraries.

At NPJSC "Kazakh National Research Technical University named after K. I. Satbayev" (hereinafter - NPJSC "KazNRTU named after K.I. Satbayev") online training is carried out directly through the online educational portal Polytech Online <https://polytechonline.kz/>

Polytech Online is a platform created by University based on the popular distance learning system Moodle. Educational materials on university programs are placed here. The system provides convenient communication with the teacher. Students can take photos of written papers on their phone, send them to their account and attach them to the task directly in the system. Accounts and class schedules for students and teachers on Polytech Online are created automatically from the data of University's student learning portal. Logins and passwords are the same in all systems.

Polytech Online is a platform through which students can get all the materials for university courses. Has full online communication with the teacher, and also, without using additional mail services, students can attach online answers to assignments. Also, the online learning platform contains tests that will help test the knowledge of students, and video lessons that clearly explain the educational material, as well as separate individual tasks will help consolidate the knowledge gained in practice.

**Training in the form of online training is not allowed according to List of areas of training with higher and postgraduate education, training in which in the form of external and online training is not allowed, approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated October 2, 2018 # 530 (registered in Register of State Registration of Regulatory Legal Acts under# 17513).*

2 Regulatory references

Rule for organizing the online training is developed on the basis of the following regulatory legal acts:

- Law of the Republic of Kazakhstan "On Education" dated 27.07.2007 # 319-III (with amendments and additions).

- Law of the Republic of Kazakhstan "On Science" dated 18.02.2011 # 407-IV (with amendments and additions).

- Law of the Republic of Kazakhstan "On the Languages of the Republic of Kazakhstan" dated 11.07.1997 #151-I (with amendments and additions).

- Law of the Republic of Kazakhstan "On combating the corruption" dated 18.11.2015 # 410-V RKL L (with amendments and additions).
- State mandatory standard of higher and postgraduate education. Approved by Order of Minister of Science and Higher Education of the Republic of Kazakhstan dated 20.07.2022 # 2 (with amendments and additions).
- Anti-corruption standard for ensuring the openness and transparency in organizations of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 04.05.2020 #174 (with amendments and additions).
- Concept of anti-corruption policy of the Republic of Kazakhstan for 2022-2026 and amendments to some decrees of President of the Republic of Kazakhstan. Approved by Decree of President of the Republic of Kazakhstan dated 2.02.2022 # 802 (with amendments and additions).
- Standard rules of activity of organizations of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 30.10.2018 # 595 (with amendments and additions)
- Rules for organizing the educational process on credit technology of training. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 20.04.2011 # 152 (with amendments and additions).
- Requirements for educational organizations to provide distance learning and rules for organizing the educational process for distance learning and in the form of online training in educational programs of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 20.03.2015 # 137 (with amendments and additions).
- Quality policy of NPJSC "KazNRTU named after K.I. Satbayev".
- International standards ISO 9001, 31000, 45001, 14001.
- Regulatory documents of NPJSC KazNRTU named after K. I. Satbayev.

3 Terms and definitions

The following concepts are used in the given Rule:

- **Polytech Online** is a platform created by University based on the popular Moodle distance learning system;
- **asynchronous learning format** - distance learning or online learning, involving the interaction of participants in the educational process, including through information systems and other means of communication, not tied to a specific place and time;
- **distance learning** - training carried out with the interaction of the teacher and students at a distance, including with the use of information and communication technologies and telecommunication means;
- **information system** is an organizational and orderly set of information and communication technologies, technical documentation that implement certain technological actions through information interaction and are designed to solve

specific functional tasks;

- **information and communication technologies** - a set of methods of working with electronic information resources and methods of information interaction carried out with the use of a hardware and software complex and a telecommunications network;

- **massive open online course(hereinafter referred to as MOOC)** - a training course with massive interactive participation, using e-learning technologies and open access via Internet;

- **educational portal** is an information system designed to provide participants of the educational process with access to information resources and educational services using an information and telecommunications network;

- **online course** - a training program that allows you to gain knowledge, skills and competencies via Internet in real time, including using the previously recorded video lectures in organizations of higher and (or) postgraduate education;

- **online training** is a form of training in specific areas of personnel training, in which the student receives higher and (or) postgraduate education through information and communication technologies and Internet for interaction between the teacher and the student, regardless of the spatial and temporal distance;

- **online proctoring** is a system of identity verification and confirmation of online exams results, which provides recording, recognition and identification of personality, analysis of head and body movements, with noise level detection, multiphase recognition, a request to record a room in 360 degrees mode, logging of suspicious events;

- **synchronous learning format** – distance learning or online learning, involving direct communication (streaming) of participants in the educational process in real time, using the capabilities of information systems and other means of communication, in which students receive information, work with it independently or in groups, discuss it with other participants and teachers from anywhere in the single time period for all;

- **Learning Management System (LMS)** is a platform for the administration of training courses, including a set of training materials and tools that provide distance learning and online learning for the interaction of participants in the educational process;

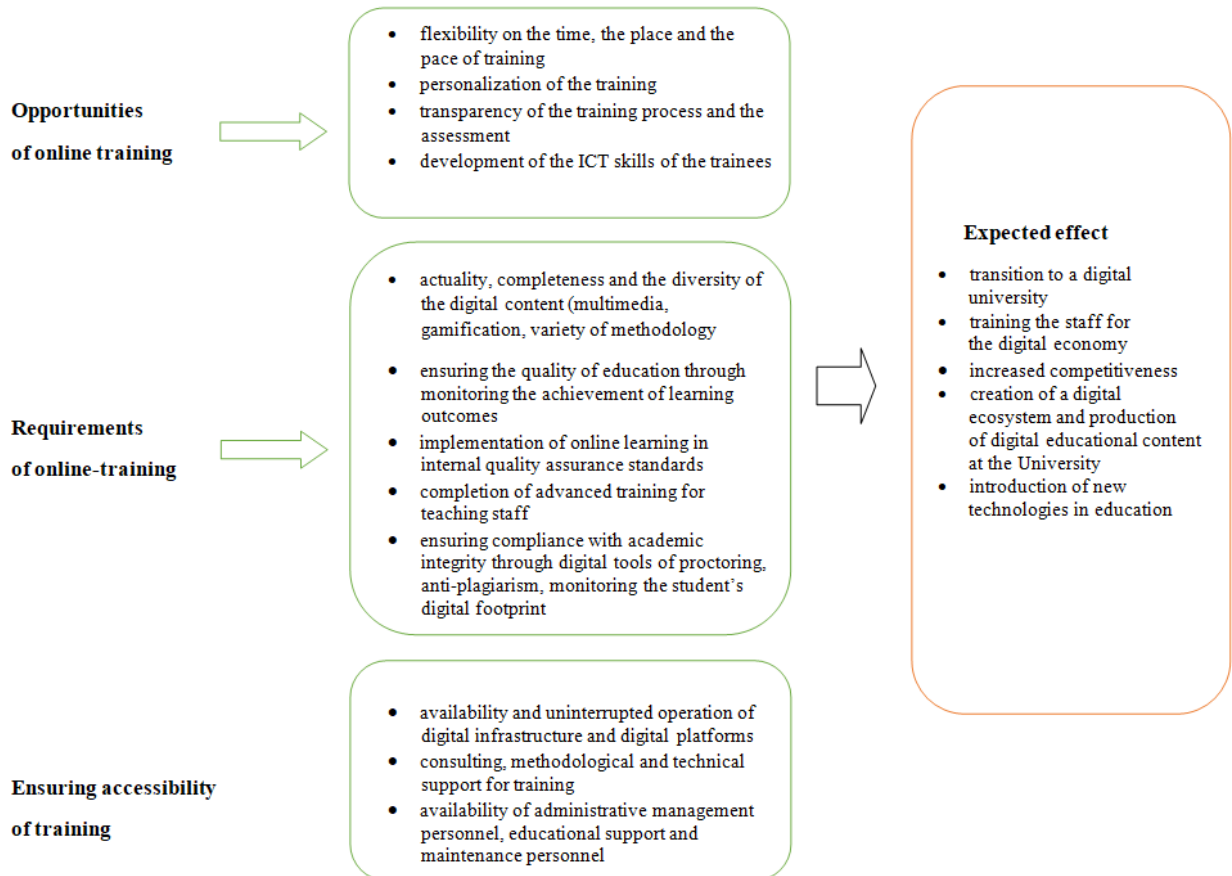
- **digital footprint of a student** is a set of verified data on the results of educational activities recorded on the LMS (learning management system) and (or) other platforms or information system;

- **digital educational resources** - didactic materials on the studied disciplines and (or) modules that provide training in an interactive form: photographs, video clips, static and dynamic models, virtual reality and interactive modeling objects, sound recordings and other digital educational materials.

4 The order of organizing the educational process for online learning

University provides online training and provides students with an individual curriculum in accordance with Rules of organizing the educational process on credit technology of training, and an individual schedule for elaborating the degree program.

Online training is carried out in accordance with the degree program entered in Register of degree programs for the relevant field of training.



The working curricula and working curricula programs (syllabi) of online learning reflect the ratio of asynchronous and synchronous learning formats, while the ratio of synchronous classes should be at least 20% of the total volume of each discipline, with the exception of disciplines, the development of which is provided with the use of MOOC.

Online training is carried out through the educational portal Polytech Online <https://polytechonline.kz/> which includes:

- Learning management system, including a built-in structure of the course elements: syllabi with mandatory indication of learning outcomes (LO) and control tasks aimed at verifying the achievement of learning outcomes, lectures, practical, laboratory tasks, course evaluation policy, audio, video content, electronic documents, images, hyperlinks to media services, electronic library, MOOC

platform, accessible corporate channels for feedback from participants of the educational process, organization of group classes, teacher-student interaction, student-student, teacher-teacher, administration-student;

- Student data management system: access to a personal account, management of the educational process, including the academic performance, student attendance, transparency of the educational process, electronic schedule of training sessions taking into account asynchronous and/or synchronous training format with links to online courses or classes in the videoconferencing system, online registration for academic disciplines;

- Research management system: database of research projects, publications, scientific developments, scientists and research results.

University provides:

- involvement of students in research activities and socio-cultural life of University;

- placement of digital content in accordance with the working curricula on the educational portal <https://polytechonline.kz/> and with the certificate of readiness of University at least 5 working days before the start of the academic period;

- the quality of digital content that meets the following requirements: completeness, diversity, availability of pedagogical design, multimedia;

- mastering at least 10% of the total volume of credits of the degree program using MOOC on the official platform of University and (or) subscriptions on international educational platforms (Coursera, EdX, FutureLearn, Udacity;

- interaction with other universities on organizing the online education.

Teaching in the form of online learning is allowed for the teaching staff who have completed advanced training courses in the field of IT competence, methods and technologies of online learning over the past 3 years with the total volume of at least 72 hours.

Conducting the professional practice, research and experimental work, scientific internships in practice bases, scientific organizations and (or) organizations of relevant industries or fields of activity is carried out in full-time. At the same time, conducting in the form of online is allowed, depending on the specifics of the degree program.

Monitoring of attendance of classes and students' progress is carried out by KazNRTU due to generating the analytical reports on the contingent of students, courses, content units, statistics of appeals to specific courses or its content, logs of entry into the platform, dynamics of activity in courses, distribution of grades, attendance statistics.

Monitoring and analysis of the educational process effectiveness is carried out by University through tracking the digital footprint of the student and teacher.

During online training, mandatory verification of all types of written works for borrowing is carried out in compliance with academic integrity principles.

The form of intermediate and final certification is determined by CSMIE. When conducting the intermediate and final certification in an online form, online

proctoring is used.

Current monitoring of students' progress, intermediate and final certification is carried out in accordance with Standard Rules of Higher and (or) Postgraduate Education Organizations, approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 # 595.

University develops and publishes regulations for meetings of administrative and managerial, teaching, teaching and support staff with students, curators/advisors of groups, streams, curatorial hours, meetings of student clubs on the educational process through the educational portal.

Conducting a questionnaire and (or) a survey among students for compliance with the quality of the educational portal, degree programs and (or) disciplines / modules, digital content and teaching staff involved in online learning.

The transfer and restoration of students in the forms of online education and full-time education is carried out in accordance with Rules of credit technology of education at NPJSC KazNRTU named after K.I.Satbayev. Transfer of students from one form of education to another is performed during the vacation period and on the fee basis.

For consulting support of persons entering online training and studying from the moment of admission to graduation, University (CSMIE) provides:

- availability of administrative and managerial, teaching, educational, auxiliary and service personnel who have the necessary competencies in online learning within their functionality;
- availability of assessable corporate communication channels;
- instructional materials on organizing the online training published on University's official website;
- organization of adaptation weeks for students with the presentation of digital resources, as well as the learning process.

For technical support of persons entering online training and studying from the moment of admission to graduation, NPJSC "KazNRTU named after K.I. Satbayev" provides:

- availability and smooth operation of digital infrastructure and digital platforms, mobile applications involved in online learning;
- functioning of the software and hardware complex that provides studio production of online courses, electronic resources, with licensed software, with a dedicated room;
- information security of digital infrastructure and digital platforms involved in online learning.
- application of modern digital educational technologies;
- development of methodological materials for organizing the online training;
- development and placement of teaching materials on online learning disciplines on the digital platform.

University provides online training and provides students with an individual curriculum in accordance with Rules for organizing the educational process on

credit technology of training, and an individual schedule for elaborating the degree program.

Methodological and technical support of the educational process is provided by Digital Technologies and Professional Development Institute.

5 Advantages of Online Learning

- Personal development trajectory.
- Adaptability of learning.
- Involvement of students in innovative activities.
- Transformation of processes based on data analysis.
- Use of modern learning technologies:
 - digital educational spaces;
 - artificial intelligence;
 - virtual reality;
 - data analysis;

6 Risks of introducing the online learning

From the point of view of technical aspects, the launch of online training may include the following risks:

1) Unstable Internet connection: Students may encounter problems related to low Internet connection speed or lack thereof, which will lead to interruptions in learning and loss of accessibility to materials.

2) Technical failures: Online learning platforms and tools may be periodically disrupted, which may affect the accessibility and sustainability of the educational process.

3) Incorrect equipment setup: Students and teachers may encounter problems related to incorrect configuration of software and other equipment, which will make it difficult to participate in lessons.

4) Compatibility and Updates: Different devices and browsers may have limitations in terms of compatibility, which may require additional settings or updates.

5) Malicious actions: cyberattacks are possible, such as hacking or the distribution of malicious software that can damage the online learning system and compromise data.

6) Data volume: Online learning can consume large amounts of data, which can be a problem for students with limited internet traffic or limited mobile data billing plans.

Registration sheet on changes

Serial number of the change	Section, item of the document	Type of the change (to replace, cancel, add)	Notification number and date	The change was made	
				Date	Surname and initials, signature, position