



APPROVED
 Director of IM&IE
 K. Yelemessov
 2020.

PLAN
FOR DEVELOPMENT OF THE EDUCATIONAL PROGRAM
7M07111- "Digital Engineering of Machines and Equipment"
for 2020 - 2025

Activities	Events	Dates					Responsible	Implementation mechanism
		2020-2021	2021-2022	2022-2023	2023-2024	2024-2025		
1. Effective management of high-quality implementation of the educational program and improvement of educational process management mechanisms	1.1. Providing the EP with regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan: SES, internal regulatory documents of NAO KazNITU named after K.I. Satbayev (provisions, instructions, forms)	+	+	+	+	+	Head of the Department, Academic staff	Obtaining the necessary documentation from the portal KazNRTU, DCD, QMS

1.2. Formation and improvement of the EP structure	+	+	+	+	+	Head of the Department, Academic staff	Continuous monitoring of the EP structure in accordance with the standards of the Republic of Kazakhstan
1.3 Development and improvement of the modular principle of EP formation	+	+	+	+	+	Head of the Department, Academic staff	Development of the logical structure of the EP on the principle of modularity in accordance with prof. Standards of the Republic of Kazakhstan and competencies of the specialty. Annual monitoring of the Modular EP with additions and
1.4. Opening of a double-degree EP in cooperation with foreign partner universities		+	+	+	+	Head of the Department	Silesian University of Technology (Poland)
1.5. Study of educational programs in this specialty of foreign and other universities of the Republic of Kazakhstan.	+	+	+	+	+	Head of the Department	Memorandums of cooperation

1.6. Work on updating the content of the EP	+	+	+	+	+	Head of the Department, Academic staff, partners	Discussion of the relevance and content of the EP (at methodological seminars and meetings of the department, round tables of the department, etc.) with the involvement of all interested parties (management of the EP, teaching staff of the EP, social partners, graduates, etc.)..
1.7. Monitoring the quality of learning outcomes	+	+	+	+	+	Head of the Department, Academic staff, advisers of undergraduates	<ul style="list-style-type: none"> - final control of students; - reviews of graduation projects; - feedback from employers and students on satisfaction with the learning outcomes during the internship.
1.8. Monitoring the quality implementation of the EP	+	+	+	+	+	Head of the Department, Academic staff, Responsible for methodical work	Discussion and analysis of open classes and mutual visits

	1.9. Development and improvement of syllabuses	+	+	+	+	+	Head of the Department, Academic staff	Constant monitoring of syllabuses, annual updating of the topics of lectures and practical classes, competencies acquired by a bachelor as a result of passing the discipline, the development of new special courses, textbooks and teaching aids based on courses read by invited professors and passing refresher courses.
2. Training of competitive students	2.1 Planning and formation of the contingent of students for the coming academic year	+	+	+	+	+	Head of the Department, Academic staff, resp. for career guidance work	Monitoring of progress and a survey of those wishing to continue their studies in the magistracy among undergraduate graduates and preparation for passing the entrance exams
	2.2. Formation and approval of the EP graduate model	+	+	+	+	+	Head of the Department, Academic staff	At the methodological seminar of the department, the methodological council of the institute and the educational and methodological
	2.3 Development and improvement of EP based on the introduction of modern educational technologies and methods into the educational process	+	+	+	+	+	Head of the Department, Academic staff	The use of modern educational technologies and methods in the educational process, providing the skills of scientific thinking, creative approach, independent work

2.4. Labor market monitoring	+	+	+	+	+	Head of the Department, Academic staff	<ul style="list-style-type: none"> - study of program documents of the Republic of Kazakhstan and international documents ratified by the Republic of Kazakhstan, study of the regulatory framework; - analysis of the opinions of social partners regarding the needs of the region in human resources; - monitoring the employment of EP graduates and satisfaction with the learning outcomes.
2.5. Improving the provision of students with educational and methodological literature (EML) and information sources	+	+	+	+	+	Head of the Department, Academic staff	Updating and supplementing the list of educational and methodological literature in syllabuses, Continuous work of teaching staff with Internet sources, Submission of an application for the acquisition of EML
2.6. Improving the methods and forms of assessing the knowledge of undergraduates	+	+	+	+	+	Head of the Department, Academic staff	Improving the forms of examinations, forms of conducting the IWSL, Increasing the activity on the IWS, the use of innovative technologies
2.7. International accreditation for the issuance of professional certificates to graduates	-	-	+	+	+	Head of the Department	Agency for Accreditation of Educational Programs in Engineering, Informatics, Natural Sciences and Mathematics ASIIN (Germany)

	2.8. Formation and approval of the list of dissertation topics	+	+	+	+	+	Head of the Department, supervisors of undergraduates	Analysis of priority and relevant areas of scientific research with the participation of all stakeholders
3. Improving the quality of EP staffing	3.1. Professional development of academic staff	+	+	+	+	+	Head of the Department, Academic staff	Professional development of teaching staff through: 1) Foreign internships; 2) Certification of teaching staff through online courses Coursera and other platforms 3) Passing advanced training courses in the disciplines taught
	3.2. Training of own personnel through the opening of admission to doctoral studies in the EP "Digital Engineering of Machines and Equipment"	+	+	+	+	+	Зав. каф., ПИИС	Doctorate 8D07110 - "Digital Engineering of Machines and Equipment"
	3.3. Invitation of leading scientists from universities under an international cooperation agreement	+	+	+	+	+	University authorities, Head of the Department.	In accordance with the agreement on international cooperation

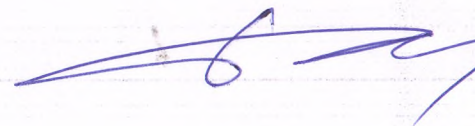
	3.4. Inviting practitioners from production and the business environment to give lectures and conduct practical exercises		+	+	+	+	Head of the Department, Academic staff	Experienced production specialists in the following areas: Mining and metallurgical and oil and gas industries
	3.5. Analysis of control classes of the teaching staff of the EP for the correspondence of the competencies of the teaching staff to the needs of the EP	+	+	+	+	+	Head of the Department, Academic staff, Committee of University control	Mutual visits of teaching staff, Intra-university control
	3.6. Control over ethical behavior and corporate culture at the university.	+	+	+	+	+	Head of the Department	Conducting preventive measures to explain professional ethics and corporate culture
	3.7. Monitoring and improving the quality of personnel	+	+	+	+	+	Head of the Department, structural divisions of the University	Conducting a questionnaire and analyzing the results of the questionnaire "Lecturer through the eyes of students"

	3.8. Improving working conditions for academic staff	+	+	+	+	+	head of the department, structural divisions of the university	Survey of teaching staff on satisfaction with working conditions
4. Research and innovation activities in the development of EP	4.1. Increase in the volume of research	+	+	+	+	+	Head of the Department, Academic staff	Study of national priority research areas
	4.2. Intensification of scientific research of teaching staff	+	+	+	+	+	Head of the Department, Academic staff	Publications of scientific research of teaching staff in foreign and domestic editions
	4.3. Participation in international, Kazakhstan grant research and projects	+	+	+	+	+	Head of the Department, Academic staff	Development of applications for the competition for grant and program-targeted funding of scientific research, as well as for competitions among young scientists
5. Development of resource potential for the implementation of EP	5.1. Providing the EP with new material and technical resources	+	+	+	+	+	Head of the Department, Academic staff	Submission of proposals for improving the resource base of the university through the introduction of the necessary material and technical means into the annual plans for state purchases of KazNRTU

5.2. Provision of software products for EP disciplines	+	+	+	+	+	Head of the Department, Academic staff	Applications for installations of applied software
5.3. Development of information and educational resources of the department (website, portal, electronic syllables, lecture notes)	+	+	+	+	+	Head of the Department, Academic staff	According to the work plan of the department, Updating information topics on the website, portal.
5.4. Replenishment of library resources of KazNRTU (book fund) for EP	+	+	+	+	+	Head of the Department, Academic staff	Analysis and submission of applications for the purchase of library resources (book fund)
5.5. Formation of practice bases	+	+	+	+	+	Head of the Department, Academic staff	Updating existing and concluding new contracts and memorandums with potential employers on cooperation and admission of undergraduates for practice

Head of the department of

« Technological machines, transport and logistics»

 **K. Yelemessov**