

**MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN  
NON-PROFIT JOINT-STOCK COMPANY  
“ALMATY UNIVERSITY OF POWER ENGINEERING AND TELECOMMUNICATIONS”**



**Educational Program Development Plan 6B07128 – Aerospace Engineering  
for 2024–2029**

**Almaty 2024**

## Action Plan for the Development of the Educational Program (EP)

Areas of Activity	Events	Responsible persons	Implementation Mechanism
1	2	3	4
1. Effective management of high-quality implementation of the Educational Program and improvement of the mechanisms for managing the educational process	1. Provision of EP with regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan: GOSO, MUP, RUP internal regulatory documents (Regulations, Instructions, forms)	Head of Department, Head of the EP, University Administration	Preparation of requests for the acquisition of regulatory documents from the Ministry of Education and Science of the Republic of Kazakhstan, the Educational and Methodological Association (RUMS) for the educational program at AUES. Cooperation with the Department of Analysis and Strategic Development and the Quality Management System (QMS) unit.
	2. Improving the structure of the Educational Program	Head of Department, Head of the EP, University Administration	Updating the content of the educational program based on a synthesis of contemporary national and international experience in training in this field, employer requirements, and labor market needs. Collaboration with employers. Monitoring the achievement of the educational program learning outcomes.
	3. Development and improvement of the modular principle of forming the Educational Program.	Head of the Department, Head of the EP, University Administration	Formation of modules taking into account the logical and meaningful interconnection of disciplines. Ensuring a unified methodological approach to teaching the module. Forming a contingent for independent work, taking into account the integrated content of the educational material

	4. Improvement of the Modular Educational Plan (updatability). Strengthening of popular scientific, educational disciplines and promising areas	Head of the Department, Head of the EP	Monitoring and analysis of employer needs and graduate satisfaction. Analysis of current international experience in the direction of EP
	5. Systematic improvement of the educational and methodological support of the educational program (UMKS, UMKD, etc.).	Head of the Department, Head of the EP, University Administration, academic staff	Updating the teaching and learning materials in consideration of employer needs and graduate satisfaction levels.
	6. Cooperation with manufacturing companies and government agencies to train specialists in in the field of space technologies, organize internships, and provide employment opportunities for graduates	Head of the Department, Head of the EP, University Administration, academic staff	Conducting master classes and seminars with the participation of companies. Participation in organizing industrial internships.
	7. Updating the graduate profile and learning outcomes during the revision of the educational program.	Head of the Department, Head of the EP, academic staff	Discussion at department meetings, as well as at meetings with employers and students.
	8. Annual report of the Head of the Educational Program on its implementation; conducting an internal audit of the program based on collected data to support managerial decision-making; and establishing a database of key indicators, including academic performance, graduate employment, and stakeholder feedback.	Head of the Department, Head of the EP	Report including a set of quality indicators.
	9. Regular updating of educational program information on the university website	Head of the Department, Head of the EP	Educational program materials published on the website (Program Passport, MUP, Course Catalog (CED), and information in the Student Guide).
2. Preparation of competitive graduates	1. Enhancement of the educational program through the integration of modern educational	Head of the Department,	Professional development of teaching staff. Discussion of improving teaching methods at the department's and faculty's

	technologies and digital tools into the teaching and learning process.	Head of the EP, University Administration	methodological seminar. Use of interactive teaching methods
	2. Development and improvement of the CED, taking into account the proposals of stakeholders, primarily the opinions of employers	Head of the Department, Head of the EP, University Administration	Annual updating of the disciplines in the Modular Educational Plan based on employer proposals. Collaboration with employers.
	3. Strengthening the practical training of students at enterprises	Head of Department, Head of the EP, University Administration	Conclusion of agreements on interaction and cooperation with the city's leading IT enterprises and leading telecommunications companies in the region and the republic. Work with the Department of International Cooperation and Academic Mobility.
	4. Formation of a high-quality contingent of students	Head of the Department, university management, Department	Career guidance plan, constant updating of the department's website.
	5. Organization of methodological seminars and consultations for academic staff on the implementation of student-centered teaching methods, active learning approaches, and formative assessment practices.	Head of Department, Head of the EP	Minutes of methodological seminars and department meetings, along with supporting materials.
	6. Revision of course syllabi to incorporate active learning methods, project-based tasks, and mechanisms for student feedback.	Head of Department, Head of the EP, academic staff	Course curricula and syllabi
	7. Peer observation of classes and internal audit of teaching quality	Head of Department, Head of the EP, academic staff	Plans for open lectures and peer observations of classes, feedback following the observations, and minutes of department meetings.
	8. Regular student surveys on teaching quality and course content; employer surveys on the quality of graduate preparation; and organization of meetings with employers.	Head of Department, Head of the EP	

3. Enhancement of conditions to ensure high-quality academic staffing of the educational program	1. Professional development of academic staff in their teaching disciplines, as well as in modern educational technologies and student-centered learning approaches	Head of the Department, university management Department	Academic staff professional development plans; participation in seminars organized by leading companies and in international conferences; certificates; and reports.
	2. Development of internal academic staff through PhD doctoral education.	Head of the Department, university management	Providing recommendations for outstanding master's graduates for admission to PhD programs.
	3. Inviting leading scientists from partner universities	Head of the Department, university management. Department	Plan for inviting international scholars to teach courses and to establish joint research projects
	4. Increase in the proportion of PhD-holding faculty members at the department	Head of the Department	Updating the department's teaching staff based on continuity: attracting the most competent PhD graduates and practitioners to teaching and research activities.
4. Research and Innovation Activities in the Development of the EP	1. Activation of scientific research at the department	Head of the Department, academic staff	Involvement of teaching staff and students in funded research projects.
	2. Participation in grant and contract research and projects	Head of the Department, academic staff	Increase in the number of works with an innovative focus, application for an innovative patent and its implementation, introduction of results into the educational process, publications in journals with a high IF and foreign ranking journals
	3. Commercialization of the research results of the department's academic staff	Head of the Department academic staff	Increase in the number of research projects and programs carried out in cooperation with national companies and private enterprises.
	4. Encouraging and motivating students to actively participate in scientific activities	Head of the Department academic staff	Participation of students in national and international competitions. Involvement of students in departmental research. Increase in the number of students in funded research and development.

	5. Increase in publications by academic staff and doctoral students in journals with a positive impact factor	Head of the Department academic staff	Preparation of scientific publications in journals with impact factors that are included in the international scientometric databases of Tomson Reuters and Scopus.)
5. Development of resource capacity for the implementation of the educational program	1. Purchase of office equipment, scientific equipment, technical training aids, visual aids, etc.	Head of Department, Head of the EP, University Administration	Annual procurement plans
	2. Purchase of new laboratory equipment	Head of the Department, academic staff	Annual procurement plans
	3. Development of the department's information and educational resources (website, portal, electronic teaching aids, etc.)	Head of the Department, academic staff	Activities to Develop the University's Information and Educational Resources
	4. Development of various forms of material and moral incentives for teaching staff	Head of the Department University Administration	Ranking of the teaching staff
	5. Establishment of specialized laboratories in cooperation with leading companies and manufacturers of innovative equipment.	Head of Department, Head of the EP, University Administration	Execution of agreements and allocation of classrooms.

### MEASURES TO REDUCE THE IMPACT OF RISKS

The following activities are used in the implementation of a joint educational program to reduce risks:

<b>№ п/п</b>	<b>Naming of possible risks</b>	<b>Measures to eliminate them</b>
1	Insufficient provision of new educational and methodological literature on professional disciplines.	To plan the annual publication of scientific and educational literature by the faculty of the departments in accordance with the working curriculum of the students and to purchase it from outside
2	The traditional way of conducting classes	To improve and implement innovative teaching technologies in the educational process

3	Traditional classrooms and laboratories	Creation of state-of-the-art specialized classrooms and research laboratories
4	Rejuvenation of teaching and scientific staff	Training of highly qualified scientific personnel through master's and doctoral programs (PhD) in accordance with modern requirements

Head of the Educational Program



Saurova K.

Head of the SE Department



Tolendiuly S.