

**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF
KAZAKHSTAN
NON-PROFIT JOINT-STOCK COMPANY "ALMATY UNIVERSITY OF POWER
ENGINEERING AND COMMUNICATIONS NAMED AFTER GUMARBEEK
DAUKEYEV"
Institute of Automation and Information Technology**



**EDUCATIONAL PROGRAM DEVELOPMENT PLAN
6B07127 – AUTOMATION AND MANAGEMENT OF BUSINESS PROCESSES
for 2023–2028**

Level of the basic educational program
(bachelor's degree, level 6)

Direction of training: 6B071 Engineering and Engineering Science
Group of educational programs: B063 Electrical engineering and automation

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1. Analytical justification of the program. Information about the educational program.

At the Department of Automation and Control of the Almaty University of Power Engineering and Telecommunications named after G. Daukeev in the direction of 6B042 - Engineering and engineering under the educational program **6B07127 – Automation and Management of Business Processes**.

The duration of bachelor's degree training is 4 years.

The educational program is developed in accordance with the National Qualifications Framework and professional standards, aligned with the Dublin Descriptors and the European Qualifications Framework based on the State Compulsory Standard of Higher Education (Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 № 604).

The purpose of the EP is training highly qualified specialists who possess and easily operate the acquired knowledge in the field of business process management, who are versed in any technology, including imported ones, and in any technical and information system that they will encounter in their professional field.

Mission of the EP is to prepare bachelors with fundamental knowledge in the field of automation and management of business processes that meet the requirements of modern professional standards.

2. Mechanisms for planning the educational program.

The following planning mechanisms are used in the management of educational programs.

At the long-term planning level, overall priority areas and strategic goals for the development of all educational programs are identified, and indicators and metrics for specific programs are included. Long-term planning documents include the vision, mission, strategy, quality policy, and university development plan. Short-term development plans for educational programs are based on these documents.

Short-term planning involves two levels.

1. At the university level, short-term planning is represented by AUES's quality objectives, improvement plans, work plans for collegial bodies, and annual work plans by area. All of these documents, as well as the plans of structural divisions, address issues related to specialist training and address the challenges of implementing specific programs.

2. At the subdivision level, educational program development planning is reflected in the Institute and Graduate Department Quality Goals, comprehensive Institute plans, and departmental work plans. Institute and department plans must include deadlines for completing activities, responsible persons, and a column for recording completion. Short-term plans are required to be aligned with the university's mission, strategic goals, and objectives, and to include a section on operational improvement. This set of plans is the primary mechanism for developing educational programs and ensuring their quality. These plans address educational, methodological, practice-oriented, and logistical aspects of educational program development. At the individual level, planning is represented by individual teaching staff plans.

The main goals and objectives of the development plan, indicating the timeframes and stages of its development:

–Managing the high-quality implementation of the educational program and improving the mechanisms for managing the educational process taking into account proposals from employers and based on research within the university's academic departments.

- Training competitive personnel;
- Improving the conditions for high-quality staffing of the EP;
- Strengthening the practical aspect of the educational process of the specialty.
- Ability to work with scientific and technical information, use domestic and foreign experience in professional activities, systematize and generalize the information received.

3. Basic measures to reduce potential risk.

The Department of Automation and Management is taking certain measures to mitigate potential risks in implementing the "Automation and Management of Business Processes" program. The main risks include a decrease in the program's attractiveness, a decrease in the student body, the inability of graduates to find employment, and a decrease in the competitiveness of graduates in the labor market.

In order to mitigate the risks, the department's development plan for the "Automation and Management of Business Processes" program has included measures aimed at eliminating (reducing) the risks: introducing more effective forms of career guidance work; creating a positive image of the program (through the graduation of highly qualified specialists, the implementation of research results, etc.); analyzing the labor market and demand for specialists; improving the effectiveness of PR services (appearances in the media); implementing a set of measures aimed at retaining the contingent (psychological support for students throughout the course of study, increasing the number of university grants, individualization of education, motivation to continue education, etc.).

4. The main goals and objectives of the development plan with indications of the timeframes and stages of its development.

The primary objective of the Development Plan for the "Automation and Management of Business Processes" educational program is to enhance it in line with the university's vision, mission, and strategies. This program focuses on providing students with a clear focus on the future, which translates into the ability to tailor their education to their personal and professional success, meeting the demands of employers and the modern labor market.

The main objectives of the development plan of the EP are the following:

No.	Main tasks	Completion deadlines	Events
1	Improving and enhancing conditions for obtaining a comprehensive, high-quality professional education	The entire period of study	Developing measures to improve educational services for the development of professional skills
2	Involvement of employers and other stakeholders in the process of improving the educational program, determining the professional competencies of graduates, and preparing educational and methodological support for the disciplines proposed by employers	The entire period of study	Annual review and updating of the content of the EP based on recommendations from employers

3	Expanding relations with foreign partners for the purpose of implementing joint scientific research and publishing educational and methodological literature	The entire period of study	Implementation of joint scientific research and publication of educational and methodological literature
4	Creating prerequisites for independent research activities of the student within the framework of conducting research at all stages of training	The entire period of study	Conducting scientific events (conferences, seminars, round tables, etc.)
5	Involving employers and research institute scientists in selecting topics and writing theses, and completing theses commissioned by employers	The entire period of study	Formation of a list of relevant and practically significant topics, taking into account employers' suggestions
6	Improving the educational, methodological and logistical support of the educational institution	The entire period of study	Increasing the volume of available educational and methodological literature, creating special rooms and laboratories.

5. List of activities of the EP Development Plan

No.	Events	Completion form	Responsible persons	Execution deadlines
1	Implementation of educational programs that ensure continuous education of students	Inclusion of EP in the National Register of EP	Graduating department	2023-2028
4	Improving the qualifications and qualifications of teaching staff through PhD studies, internships, and attracting foreign teachers with academic degrees	Achieving the share of faculty with academic degrees of 80%	Graduating department	2023-2028
5	Expanding the base of educational, professional and other practices for students	Concluding contracts with employers, minimum 50 places in total	Graduating department	2023-2028
6	Expanding relations with foreign partners for the purpose of implementing joint scientific research and publishing educational and methodological literature	Implementation of joint projects, publication of educational and methodological literature	Graduating department	2023-2028
7	Involvement of domestic and foreign practitioners and scientific and	Actual teaching of academic subjects	Graduating department	2023-2028

	pedagogical staff with practical work experience in the educational process			
8	Implementation of academic mobility of students and teachers	Study and internship at a foreign university	Graduating department	2023-2028

Table 3 - SWOT analysis for the EP Development Plan 6B07127 - Automation and Management of Business Processes

Strengths	Weaknesses
<ul style="list-style-type: none"> • The educational program was developed jointly with employers. • Provision of modern equipment for educational laboratories. • Availability of departmental competence centers with global vendors. • Qualified teaching staff. • Involvement of practicing specialists with extensive experience working at large enterprises in various industries in the educational process as teaching staff. • Stable set. • The demand from enterprises for specialists in this educational program and, accordingly, a high level of employment of graduates. • Established relationships with industrial enterprises enable the implementation of research and development results into production processes. • A well-developed social support policy for students (tuition discounts, incentives for winning Olympiads, competitions, and scientific research, payments from the Board of Trustees, a grant and scholarship from Gumarbek Daukeev, as well as the Bulat Khisarov scholarship, specially established by graduates for the EP). 	<ul style="list-style-type: none"> • Not all regions have partners for students to undergo all types of practical training. • Insufficient level of publications in international peer-reviewed journals. • Aging of the teaching staff and practitioners, low staff turnover. • The insufficient level of English proficiency among teaching staff prevents them from implementing international cooperation on a broad and effective basis. • Insufficient provision of the educational process with educational literature in the state and English languages. • Low level of popularization, stimulation and involvement of young teachers and students in the implementation of scientific projects and developments. • Low publication activity of faculty and students. • Low academic mobility of students. • Low student enrollment
Possibilities	Threats
<ul style="list-style-type: none"> • Having connections with global vendors makes it possible to create powerful training centers. • Certification of graduates by recognized organizations. • Advanced training for teaching staff on preferential terms in global companies. 	<ul style="list-style-type: none"> • A decrease in the number of degrees awarded due to the untimely defense of doctoral theses by doctoral students and the departure of older faculty with degrees. • Rapid changes in the labor market require adjustments to the EP.

<ul style="list-style-type: none"> • Diversity of learning trajectories. • The attractiveness of the educational program for students and leading teaching staff of other universities. • Attracting young practitioners. • Implementation of dual degree programs with foreign universities and universities of the Republic of Kazakhstan. • Growing demand for high-tech specialties will allow for regular updating of training pathways. • Engaging fourth-year students in research activities with the goal of further admission to master's programs, teaching, and doctoral studies, as well as launching start-ups. 	<ul style="list-style-type: none"> • Obsolescence of laboratory equipment, software and computer equipment. • The increase in the number of students will cause a shortage of classroom and laboratory facilities, as well as teaching staff. • Problems with internship places in the regions against the backdrop of an increasing number of students. • Frequent changes in regulatory frameworks in the field of education and science. • Deterioration in the quality of the contingent due to the low level of training of schoolchildren and college graduates. • The outflow of qualified teachers and scientists to other industries (commercial) with higher incomes, as well as to other universities. • The outflow of strong students to other universities, including foreign ones.
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Head of the Department of AU
Head of the EP

Automation and Management of Business Processes



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