

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF
KAZAKHSTAN
NON-PROFIT JSC "ALMATY UNIVERSITY OF POWER ENGINEERING
AND TELECOMMUNICATIONS NAMED AFTER GUMARBEK
DAUKEYEV"
INSTITUTE OF COMMUNICATION AND SPACE ENGINEERING
DEPARTMENT OF ELECTRONIC ENGINEERING



«AGREED»
Head of Department IT
«Saiman» Corporation
Корпорация «Сайман»
Зикирбай К.У.
«20» 05 2025

«APPROVED»
Rector of AUET named
after Gumarbek Daukeyev
Nygymetov Gani
Ktaganovich.
«20» 05 2025

MODULAR EDUCATIONAL PROGRAM
«7M07106 - INSTRUMENTATION»

Head of the educational program S.A. Yussupova

Field of education (according to the classifier of 13.10.2018): 7M07 -
Engineering, manufacturing and construction industries
Direction of training (according to the classifier from 13.10.2018): 7M071 -
Engineering and Engineering

Duration of training - 2 years
Awarded academic degree - Master of Engineering Sciences
Qualification level according to the National Qualifications Framework:
Level 7

Almaty 2025

The educational program was developed: on the basis of the laws of the Republic of Kazakhstan and regulatory documents: The State mandatory standard of higher Education, the State mandatory standard of postgraduate education (Decree of the Government of the Republic of Kazakhstan dated 23.08.2012 No. 1080), Standard rules for the organization of higher and postgraduate education (Decree of the Government of the Republic of Kazakhstan dated 17.05.2013 No. 499), Rules for the organization of the educational process on credit technology of education (order of the Ministry of Education of the Republic of Kazakhstan dated 20.04.2011 No. 152)

The educational program was developed at the Department of Electronic Engineering.

Head of the educational program



S.A. Yussupova

The EP was reviewed and approved at the meeting of the Department of "Electronic Engineering " Protocol No. of

Head of the Department of ER



The EP was reviewed and approved at a meeting of the Scientific and Methodological Council of the Institute of Communications and Space Engineering Protocol No. of

Director of ICSE



The EP was reviewed and approved by the Academic Council of the Gumarbek Daukeev AUE (Protocol No. of " ").

List of designations and abbreviations

HE	- Higher education
SMSE	- State mandatory standard of education
EQF	- European Qualification Framework
HK3	- National Classifier of Occupations
RK	- Republic of Kazakhstan
NQF	- National Qualifications framework
NQS	- National qualifications system
GEM	- General educational module
EP	- Educational program
GED	- General education disciplines
RC	- Required component
HSC	- High school component
BD	- Basic disciplines
PD	- Profile disciplines
IET	- Individual educational trajectory
IQF	- Industry qualifications framework
PS	- Professional standard
PE	- Postgraduate education
ON	- Competencies
LR	- Learning result
CP	- Course paper
CGW	- Calculation and graphic work
RWS	- Research work of students
CED	- Catalog of elective disciplines

1. Passport data of EP «7M07106 - Instrumentation»

№	Field name	Note
1	Registration number	7M07100039
2	Code and classification of the field of education	7M07 – Engineering, manufacturing and construction industries
3	Code and classification of training areas	7M071 – Engineering and Engineering
4	Group of educational programs	M064 – Mechanics and metalworking
5	Name of the educational program	"7M07106 - Instrumentation"
6	Type EP	Current EP ;
7	The purpose of the educational program	Training of highly qualified scientific and pedagogical personnel of the electrotechnical profile who have theoretical and practical knowledge of microprocessor control systems and robotics, skills and abilities to conduct research and transfer knowledge to students, capable of independent thinking and ensuring progressive scientific, technical, socio-economic and cultural development of society.
8	ISCED level	ISCED 7 Master's degree or its equivalent
9	The level of the NRK	7
10	ORC Level	7
11	Distinctive features of the OP	PS "Technical support of electronics" Professional standard: for teachers (faculty) of organizations of higher and (or) postgraduate education
	Partner University (SOP)	National Research Tomsk Polytechnic University
	Partner University (DDOP)	No;
12	List of competencies	<p>ON-1. Demonstrate their intellectual level based on knowledge of philosophy of science, higher school pedagogy, foreign languages and management psychology. The ability to acquire new knowledge, skills and expand your scientific worldview.</p> <p>ON-2. Investigate the scientific and technical problems of electronic instrumentation, simulate technological processes and conduct scientific experiments.</p> <p>ON-3. Demonstrate theoretical and practical knowledge in the field of modern intelligent control systems and nanotechnology, diagnostics and reliability.</p> <p>ON-4. Effectively use modern computer and information technologies, digital technology and software in solving scientific and technical problems of instrument making</p> <p>ON-5. Development of technical specifications, requirements and conditions for the design of electronic equipment, complexes and systems.</p> <p>ON-6. Be able to organize the modernization of control and measuring equipment of manufacturing enterprises of various sectors of the economy</p> <p>ON-7. Use of measuring equipment to adjust the components of electronic complexes.</p>
13	Learning result	

		<p>ON-8. Have the skills to work with the automatic design system and use application programs in the development of modern devices and systems.</p> <p>ON-9. Have the skills of conducting classroom training sessions, organizing and planning research, design and writing master's theses and projects.</p> <p>ON-10. Demonstrate theoretical and practical knowledge in the field of modern pedagogical methods of teaching at the university and college.</p> <p>(appendix 2.1)</p>
14	Form of training	Day Form of training time
15	Language of instruction	Kazakh, Russian, English
16	Volume of loans	120
17	Academic degree awarded	Master of Engineering Sciences
18	Availability of an appendix to the license for the direction of training	License number KZ80LAA00018161 Date of license issue 05.05.2020
19	Availability of EP accreditation	There are
	Name of the accreditation body	IAAR NU "Independent Accreditation and Rating Agency"
	Validity period of accreditation	31.05.2024-30.05.2027
20	Information about the disciplines	Information about the disciplines university component/component for the choice of General education disciplines, BD, PD

