



**Institute of Automation and Information Technology
Department of Higher Mathematics and Modeling**

EDUCATIONAL PROGRAM

7M06110 Digital modeling

Code and classification of the field of education: 7M06 Information and
Communication Technologies

Code and classification of training directions: 7M061 Information and
Communication Technologies

Group of educational programs: M094 Information Technologies

Level based on NQF: 7

Level based on IQF: 7

Study period: 2 years








Amount of credits: 120

Almaty 2025

Educational program 7M06110 – «Digital modeling» approved at the meeting of the Academic Council of KazNRTU named after K.I. Satpayev.
Protocol No.10 of «06» March 2025 year.

Considered and recommended for approval at the meeting of the Educational-Methodical Council of KazNRTU named after K.I. Satpayev.
Protocol No. 3 of «20» December 2024 year.

Educational program 7M06110 – «Digital modeling» developed by the academic committee for the direction 7M061 «Information and communication technologies».

Name and surname	Degree/ academic title	Position	Place of work	Sign
Chairman of the Academic Committee:				
Tulesheva Gulnara Alipovna	Candidate of Physical and Mathematical Sciences, associate professor	Head of Department	KazNRTU named after K.I. Satpayev	
Academic Committee members:				
Sakabekov Auzhan Sakabekovich	Doctor of Physical and Mathematical Sciences, professor	Professor	KazNRTU named after K.I. Satpayev	
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Employers:				
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Students				
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General information

№	Field name	Comments
1	Code and classification of the field of education	7M06 Information and Communication Technologies
2	Code and classification of training directions	7M061 Information and Communication Technologies
3	Educational program group	M094 Information Technologies
4	Educational program name	7M06110 Digital modeling
5	Short description of educational program	7M06110 Digital modeling educational program is designed to train master's students who can independently solve a wide range of engineering problems using modern analytical, numerical, and experimental methods, as well as mathematical and computer modeling techniques. This educational program is designed to train specialists in the field of mathematical and computer modeling of various processes and complex systems, to acquire competitive knowledge and the ability to apply it to the development of new methods and knowledge in the mathematical and computer modeling of three-dimensional objects and to solve applied problems arising in physics, chemistry, biology and economics.
6	Purpose of EP	The purpose of the educational program "Digital Modeling" is to train highly qualified specialists with relevant competencies of masters in the field of mathematical and computer modeling, creation and use of new effective methods of information processing, mathematical models of complex processes and objects, development and application of modern mathematical methods and software. As a result of graduation, graduates will be able to work as specialists in the field of technology construction and research of mathematical models of a wide variety of systems and processes, allowing to predict the evolution of the studied systems, and thereby verify the correctness of the decisions taken.
7	Type of EP	Innovative EP
8	The level based on NQF	7
9	The level based on IQF	7
10	Distinctive features of EP	No
11	Education form	Full-time
12	Period of training	2 years
13	Amount of credits	120
14	Languages of instruction	Kazakh, Russian, English
15	Academic degree awarded	Master of Technical Sciences
16	Developer(s) and authors	Azhibekova A.S., Lukpanova L.Kh.