



Geology and Oil-gas Business Institute named after K. Turyssov
Department of Chemical and Biochemical Engineering

EDUCATIONAL PROGRAM

6B05105 Biotechnology

Code and classification of the field of education: 6B05 Natural Sciences,
Mathematics and Statistics

Code and classification of training areas: 6B051 Biological and related sciences

Group of educational programs: B050 Biological and related sciences

Level according to the NQF: 6

Level according to the IQF: 6

Duration of study: 4 years

Volume of loans: 240

Almaty 2025




Educational program 6B05105 Biotechnology was approved at the meeting of the K.I. Satbayev KazNRTU Academic Council

Minutes № 10 dated « 06 » 03. 2025.

was reviewed and recommended for approval at the meeting of K.I. Satbayev KazNRTU Educational and Methodological Council

Minutes № 3 dated « 20 » 12. 2024 .

Educational program 6B05105 Biotechnology was developed by Academic committee based on direction 6B051 «Biological and related sciences»

Name	Academic degree/ academic	Post	Place of work	Signature
Chairman of the Academic Committee:				
Belkozhaev Ayaz Maratovich	Doctor PhD	Associate Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Teaching staff:				
Narmuratova Zhanar Bakhytovna	Doctor PhD	Associate Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Mangazbaev a Rauash Amantaevna	Candidate of Chemical Sciences, Associate Professor	Associate Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Sandybayeva Sandugash Kalzhankyzy	-	Lecturer	Kazakh National Research Technical University named after K.I.Satpayev	
Employers				
Jamalova Gulya Abaevna	Candidate of Agricultural Sciences	Associate Professor	General Director of Scientific Diagnostic Center "Animal expert group" LLP	
Students:				
Amantai Indira	-	Student	Kazakh National Research Technical University named after K.I.Satpayev	

General information

№	Field name	Comments
1	Code and classification of the field of education	6B05 Natural Sciences, Mathematics and Statistic
2	Code and classification of training directions	6B051 Biological and related sciences
3	Educational program group	B050 Biological and related sciences
4	Educational program name	6B05105 Biotechnology
5	Short description of educational program	The educational program 6B05105 Biotechnology provides a deep understanding of how to design and use modern life science-based manufacturing processes, considering product quality, sustainability and finance. Graduates have the competencies and skills to use cells, cellular components and biomolecules to produce goods such as chemicals, food, biofuels and biomaterials to develop a sustainable society. The educational program includes advanced training courses on biotechnological tools used for the development of industrial processes, the sustainable production of goods and the impact of such processes on the environment and society.
6	Purpose of EP	Training of qualified, competitive specialists capable of applying modern experimental methods of working with biological objects and modern equipment in the conditions of modernization of biotechnological industries, ensuring innovative and environmentally responsible development in the interests of sustainable development, public health, and well-being.
7	Type of EP	New
8	The level based on NQF	6
9	The level based on IQF	6
10	Distinctive features of EP	no
11	Education form	full-time education
12	Period of training	4 years
13	Amount of credits	240
14	Languages of instruction	Kazakh, Russian, English
15	Academic degree awarded	Bachelor of Science
16	Developer(s) and authors	Belkozhaev A.M., Narmuratova Zh.B., Mangazbaeva R.A., Sandybaeva S.K.