Geology and Oil-gas Business Institute named after K. Turyssov
Department of "Geophysics and Seismology"

THE EDUCATIONAL PROGRAM
8D05303 Applied Seismology

Code and classification of the field of education: **8D05 Natural sciences, mathematics and statistics**
Code and classification of training directions: **8D053 Physical and chemical sciences**
Group of educational programs: **D091 Seismology**
Level based on NQF: 8
Level based on IQF: 8
Study period: 3 years
Amount of credits: 180

Almaty 2026

The educational program 8D05303 Applied Seismology was approved at the meeting of the Management Board of Satbayev University
Protocol №5 of 10.03.2026 year

Reviewed and recommended for approval at the meeting of the Educational and Academic Council of K.I.Satbayev Kazakh National Research Technical University
Protocol №8 of 26.02.2026 year

Reviewed and recommended for approval at the meeting of the Educational and Methodological Council of K.I. Satbayev Kazakh National Research Technical University
Protocol №3 of 25.12.2026 year

Educational program 8D05303 Applied Seismology was developed and reviewed at the meeting of the Academic Committee
Protocol №5 of 19.12.2025 year

Passport of the educational program

General information

No.	Field name	Comments
1	Code and classification of the field of education	8D05 Natural sciences, mathematics and statistics
2	Code and classification of training directions	8D053 Physical and Chemical Sciences
3	Educational program group	D091 Seismology
4	Educational program name	8D05303 Applied Seismology
5	Short description of educational program	The program for training doctors in the field of Applied Seismology provides: a) training of highly qualified specialists in the field of seismic geophysical methods for assessing seismic hazard, risk and forecasting earthquakes; obtaining by them high-quality and professional knowledge on forecasting the locations of occurrence, strength and recurrence of earthquakes; b) formation of knowledge in the required volume for studying earthquake sources, displacements of Earth blocks and other transformations of the environment in sources, conducting detailed studies of the processes of earthquake preparation in the real physical and geological environment, performing assessments of source parameters, identifying earthquake precursors and developing long-term, medium-term and short-term earthquake forecasts, methods of managing the seismic process, assessing the anthropogenic (technogenic) impact on seismicity; c) qualified solution of engineering and seismological problems, which consists of studying the seismic wave field caused by an earthquake near the source, studying strong seismic movements of the earth's surface and the interaction of soil with a structure, developing methods and conducting seismic microzoning, determining the impact of earthquakes on the hydrosphere and atmosphere of the Earth; d) obtaining by doctoral students high-quality and professional knowledge on the stages and rational complexes of seismic geophysical research, processing, interpretation and modeling of the obtained data.
6	Purpose of EP	Training of highly qualified doctoral students with advanced knowledge in the systematic study of natural seismic processes to solve strategic challenges in applied seismology, manage scientific projects, and implement ESG principles and Sustainable Development Goals (SDGs)
7	Type of EP	Acting EP
8	The level based on NQF	8
9	The level based on IQF	8
10	Distinctive features of EP	No
11	Education form	full-time
12	Period of training	3
13	Amount of credits	180
14	Languages of instruction	Kazakh, russian, english
15	Academic degree awarded	Doctor of Industry
16	Developer(s) and authors	1). Professor Abetov A.E., 2). Associate Professor Umirova G.K.