



**Geology and oil-gas Business Institute named after k. Turyssov
Department of "Geophysics and Seismology"**

**EDUCATIONAL PROGRAM
8D05302 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



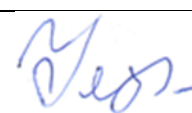
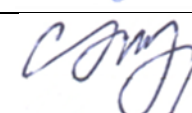
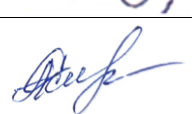



Almaty 2025

Educational program 8D05302 Seismology was approved at the meeting of K.I. Satbayev KazNRTU Academic Council
 Minutes # №10 dated «06».03.2025.

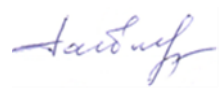


was reviewed and recommended for approval at the meeting of K.I. Satbayev KazNRTU Educational and Methodological Council
 Minutes # №3 dated «20» 12.2024.

Educational program 8D05302 Seismology»

was developed by Academic committee based on direction «8D053 «Physical and Chemical Sciences»»

Full name	Academic degree/academic title	Position	Workplace	Signature
Teaching staff:				
Boranbai Tovbasarovich Ratov	Doctor of Technical Sciences, Professor	Head of the Department of Geophysics and Seismology	Kazakh National Research Technical University named after K.I.Satpayev	
Abetov Auez Egemberdievich	Doctor of Geological and Mineralogical Sciences	Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Umirova Gulzada Kubashevna	Doctor of PhD	Associate Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Temirkhanova Rausan Galimzhanovna	Doctor of PhD	Associate Professor	Kazakh National Research Technical University named after K.I.Satpayev	
Siytkanova Akgenzhe Orishanovna	Doctor of PhD	Senior Teacher	Kazakh National Research Technical University named after K.I.Satpayev	
Aliakbar Madiyar Manarbekuly	Master of Technical Sciences	Senior Teacher	Kazakh National Research Technical University named after K.I.Satpayev	
Employers:				
Mikhailova Natalia Nikolaevna	Doctor of Physical and Mathematical Sciences	Director	Kazakhstan National Data Center (KNDC)	
Uzbeks Nursarsen Bolataevich	Candidate of Physical and Mathematical Sciences	Deputy Director of Science	Institute of Seismology	
Students				

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Dosymbekova Zhansaya	Master of Technical Sciences	Doctoral student 2 years of study	Institute of Seismology	
Isagali Asem	Master of Technical Sciences	Doctoral student 2 years of study	Kazakhstan National Data Center (KNDC)	
Muzapparova Akerke Bakbergenovna	Master of Technical Sciences	Doctoral student 1 years of study	Kazakh National Research Technical University named after K.I.Satpayev	

General information

№	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	8D05302 Seismology
5	Short description of educational program	<p>The doctoral training program for the EP “Seismology” provides:</p> <p>a) training of highly qualified specialists in the field of seismogeophysical methods for assessing seismic hazard, risk and earthquake forecasting; obtaining high-quality and professional knowledge on forecasting the places of occurrence, strength and recurrence of earthquakes;</p> <p>b) formation of knowledge to the required extent for studying earthquake foci, displacements of Earth blocks and other environmental transformations in foci, conducting detailed studies of earthquake preparation processes in a real physico-geological environment, performing assessments of the parameters of the focus, identifying earthquake precursors and developing long-term, medium-term and short-term earthquake forecasts, methods of controlling the seismic process, assessment of anthropogenic (man-made) influence on seismicity; c) a qualified solution of engineering and seismological problems, which consists in studying the seismic wave field caused by an earthquake near the hearth, studying strong seismic movements of the Earth's surface and the interaction of soil with the structure, developing methods and conducting seismic microdistricting, determining the impact of earthquakes on the hydrosphere and the Earth's atmosphere;</p> <p>d) obtaining high-quality and professional knowledge by phasing and rational complexes of seismogeophysical studies, processing, interpretation and modeling of the obtained data.</p>
6	Purpose of EP	The aim of the educational program is to train highly qualified specialists with deep knowledge in the field of geophysics and understanding of natural seismic processes occurring in the Earth, taking into account the principles of sustainable use of natural resources and minimization of

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		environmental risks. The program is aimed at developing the ability of doctoral students to independently solve educational, research and professional problems, promoting an innovative approach to solving global environmental and technological challenges in geophysical and related industries
7	Type of EP	New 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 years
13	Amount of credits	180
14	Languages of instruction	Kazakh, russian, english
15	Academic degree awarded	Doctor of Philosophy PhD
16	Developer(s) and authors	Professor Abetov A.E., Associate Professor Umirova G.K.