



**Mining and metallurgy Institute named after O.A.Baikonurov**

**Mining Department**

### **EDUCATIONAL PROGRAM**

#### **8D07211 Digital modelling of mining and geomechanical processes**

|  |       |  |
|--|-------|--|
| Code and classification of the field of education: | 8D07  | Engineering, manufacturing and construction industries |
| Code and classification of training directions:    | 8D072 | Industrial and manufacturing branches                  |
| Group of educational programs:                     | D116  | Mining engineering                                     |
| Level based on NQF:                                | 8     |  |
| Level based on IQF:                                | 8     |  |
| Study period:                                      | 3     | years  |
| Amount of credits:                                 | 180   |  |

**Almaty 2025**


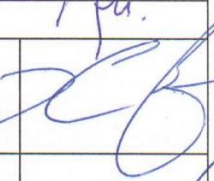
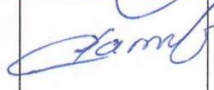
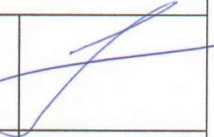

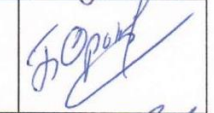
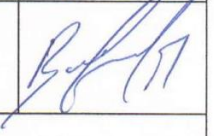
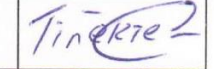
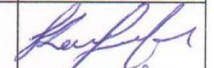

Educational program 8D07211- " Digital modelling of mining and geomechanical processes " was approved at the meeting of K.I. Satbayev KazNRTU Academic Council

Minutes № 10 dated « 06 » March 2025.

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

Minutes № 3 dated «\_22\_» \_December\_ 2024 .

Educational program 8D07211- " Digital modelling of mining and geomechanical processes" was developed by Academic committee based on direction 8D072- « Industrial and manufacturing branches »

| Full name                                  | Academic degree/academic title                       | Post                                   | Place of work                     | Signature   |
|--|--|--|-----------------------------------|---|
| <b>Chatiman of the Academic Committee:</b> |  |  |                                   |   |
| Moldabayev Serik                           | Doctor of Technical Sciences, Professor              | Head of the Department                 | KazNRTU named after K.I. Satpayev |    |
| <b>Teaching staff:</b>                     |  |  |                                   |   |
| Yusupov Kh.                                | Doctor of Technical Sciences, Professor              | Professor                              | KazNRTU named after K.I. Satpayev |   |
| Sandibekov Manarbek                        | Candidate of Technical Sciences, Associate Professor | Professor                              | KazNRTU named after K.I. Satpayev |  |
| <b>Employers:</b>                          |  |  |                                   |   |
| Uteshov Y.                                 | PhD doctor   | Director                               | IGD named after D.A. Kunaeva      |  |
| Amankulov Maksat                           | Master of Engineering sciences                       | Executive Director                     | Antal LLP                         |  |
| Orynbayev Baurzhan                         | PhD doctor   | Head of the BVR Parameters Department  | NPP Interrin LLP                  |  |
| Gryaznov V.                                | Master of Engineering sciences                       | Head of the Mining Department          | Antal LLP                         |  |
| <b>Students:</b>                           |  |  |                                   |   |
| Tilektes Ayaulym                           |  | 3 <sup>rd</sup> year student           |                                   |  |
| Karsibekov Magzhan                         |  | 2 <sup>nd</sup> year Master 's student |                                   |  |
| Assylkhanova Gulnur                        | Master of Engineering sciences                       | 3 <sup>rd</sup> year doctoral student  |                                   |  |

## Passport of educational program

### General information

| №  | Field name  | Comments  |
|----|---|---|
| 1  | Code and classification of the field of education | 8D07 Engineering, manufacturing and construction industries   |
| 2  | Code and classification of training directions    | 8D072 Industrial and manufacturing branches   |
| 3  | Educational program group                         | D116 Mining engineering   |
| 4  | Educational program name                          | 8D07211 Digital modelling of mining and geomechanical processes   |
| 5  | Short description of educational program          | Training implies serious research work, the fulfilment of which significantly increases the status of the doctoral student as a young scientist in his/her field of study   |
| 6  | Purpose of EP                                     | Training highly qualified technical specialists of top-level mining enterprises in digital modeling of mining and geomechanical processes at the intersection of geotechnology and geomechanics to solve scientific, technological, economic, social and environmental problems of mining, endowed with the skills of transition to a green economy, transformation of business planning processes and designing mining operations using mining and geological information systems and increasing the efficiency of mining companies through the redistribution of income within the value chain. The set of disciplines corresponds to the goals of sustainable development: quality education; decent work and economic growth; industrialization, innovation and infrastructure. |
| 7  | Type of EP  | Innovative  |
| 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 Engineering (Industry)  |
| 16 | Developer and authors                             | Moldabaev S.K.  |