



**CURRICULUM**  
of Educational Program on enrollment for 2022-2023 academic year

Educational program 7M07207 - "Oil and gas geology"  
Group of educational programs M121 - "Geology"

Form of study: full-time

Duration of study: 2 year

Academic degree: Master of engineering science

| Discipline code  | Name of disciplines   | Cycle   | Total amount in credits | Total hours | Classroom amount lec/lab/pr | SIS (including TSIS) in hours | Form of control | Allocation of face-to-face training based on courses and semesters |            |            |            |
|--|---|---------|-------------------------|-------------|-----------------------------|-------------------------------|-----------------|--|------------|------------|------------|
|  |   |         |                         |             |                             |                               |                 | 1 course   |            | 2 course   |            |
|  |   |         |                         |             |                             |                               |                 | 1 semester   | 2 semester | 3 semester | 4 semester |
| <b>CYCLE OF BASIC DISCIPLINES (BD)</b>   |   |         |                         |             |                             |                               |                 |  |            |            |            |
| <b>M-1. Module of basic training (university component)</b>                            |   |         |                         |             |                             |                               |                 |  |            |            |            |
| LNG210   | English (professional)  | BD UC   | 5                       | 150         | 0/0/3                       | 105                           | E               | 5  |            |            |            |
| HUM214   | Management Psychology   | BD UC   | 3                       | 90          | 1/0/1                       | 60                            | E               |  | 3          |            |            |
| HUM212   | History and philosophy of science   | BD UC   | 3                       | 90          | 1/0/1                       | 60                            | E               |  |            | 3          |            |
| HUM213   | Higher school pedagogy  | BD UC   | 3                       | 90          | 1/0/1                       | 60                            | E               | 3  |            |            |            |
| <b>component of choice</b>   |   |         |                         |             |                             |                               |                 |  |            |            |            |
| GEO299   | Oil and gas hydrogeology  | BD CCH  |                         |             |                             |                               |                 | 3  |            |            |            |
| GEO275   | Oil and gas systems   |         | 5                       | 150         | 2/0/1                       | 105                           | E               | 5  |            |            |            |
| GEO704   | Interpretation of geological and geophysical data for the purpose of estimating oil and gas reserves and resources      | BD CCH  | 5                       | 150         | 2/0/1                       | 105                           | E               | 5  |            |            |            |
| GEO757   | Evolution of sedimentary rock formation   |         |                         |             |                             |                               |                 |  | 5          |            |            |
| GEO743   | Lithology of natural oil and gas reservoirs   | BD CCH  | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            |            |            |
| GEO759   | Basin modeling  |         |                         |             |                             |                               |                 |  |            | 5          |            |
| <b>CYCLE OF PROFILE DISCIPLINES (PD)</b>   |   |         |                         |             |                             |                               |                 |  |            |            |            |
| <b>M-2. Module of sedimentogenesis and organic geochemistry (university component)</b> |   |         |                         |             |                             |                               |                 |  |            |            |            |
| GEO287   | Organic Geochemistry and Paleobiomarkers  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               | 5  |            |            |            |
| GEO263   | The analysis of sedimentary basins  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  | 5          |            |            |
| GEO743   | Sedimentation and facies conditions during the formation of oil and gas complexes                                       | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            | 5          |            |
| GEO703   | Paleo-temperature regimes of the subsoil, the genesis and migration of hydrocarbons                                     | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            | 5          |            |
| <b>M-3. Module of Geological exploration and modeling</b>                              |   |         |                         |             |                             |                               |                 |  |            |            |            |
| GEO742   | Aerospace methods in the search for oil and gas fields  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               | 5  |            |            |            |
| GEO292   | Prediction and assessment of oil and gas resources  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            | 5          |            |
| GEO701   | Geostatistics in field and field geological research  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            | 5          |            |
| GEO744   | Regional and local modeling of the evolution of sedimentary basins  | PD UC   | 5                       | 150         | 2/0/1                       | 105                           | E               |  | 5          |            |            |
| GEO746   | Theoretical and methodological patterns of allocation of resources and hydrocarbon reserves on the shelf and water area | PD UH   | 5                       | 150         | 2/0/1                       | 105                           | E               |  |            | 5          |            |
| <b>M-4. Practice-oriented module</b>   |   |         |                         |             |                             |                               |                 |  |            |            |            |
| AAP229   | Pedagogical practice  | BD UC   | 6                       |             |                             |                               |                 |  |            |            |            |
| AAP256   | Research practice   | PD UC   | 4                       |             |                             |                               |                 |  | 6          |            |            |
| <b>M-5. Experimental research module</b>   |   |         |                         |             |                             |                               |                 |  |            |            |            |
| AAP251   | Research work of a master's student, including internship and completion of a master's thesis                           | RWMS UC | 2                       |             |                             |                               |                 | 2  |            |            |            |
| AAP241   | Research work of a master's student, including internship and completion of a master's thesis                           | RWMS UC | 3                       |             |                             |                               |                 |  | 3          |            |            |
| AAP254   | Research work of a master's student, including internship and completion of a master's thesis                           | RWMS UC | 5                       |             |                             |                               |                 |  |            | 5          |            |
| AAP255   | Research work of a master's student, including internship and completion of a master's thesis                           | RWMS UC | 14                      |             |                             |                               |                 |  |            | 14         |            |
| <b>M-6. Module of final attestation</b>  |   |         |                         |             |                             |                               |                 |  |            |            |            |
| ECA205   | Preparation and defense of a master's thesis  | FA      | 12                      |             |                             |                               |                 |  |            | 12         |            |
| <b>Total based on UNIVERSITY:</b>  |   |         |                         |             |                             |                               |                 | 25   | 25         | 30         | 30         |
|  |   |         |                         |             |                             |                               |                 | 50   |            | 60         |            |

| Cycle code | Cycles of disciplines                  | Credits                   |                           |       |
|------------|--|---------------------------|---------------------------|-------|
|            |  | university component (UC) | component of choice (CCH) | Total |
| BD         | Cycle of basic disciplines             |                           |                           |       |
| PD         | Cycle of profile disciplines           | 20                        | 15                        | 35    |
|            | <b>Total for theoretical training:</b> | 0                         | 19                        | 19    |
|            |  |                           | 15                        | 34    |
| FA         | Final attestation                      | 12                        |                           | 12    |
|            | <b>TOTAL:</b>                          | 12                        | 19                        | 31    |

Decision of the Academic Council of Kazntu named after K.Satpayev. Protocol No. 13 or "28" 04 2022.

Decision of the Educational and Methodological Council of Kazntu named after K.Satpayev. Protocol No. 4 or "26" 04 2022.

Decision of the Academic Council of the Institute. Protocol No. 4 or "30" 12 2021.

Vice-Rector for Academic Affairs

Director of Geology, petroleum and engineering Institute

Department Head of Hydrogeology, engineering and petrole

Specialty Council from employers

*(Handwritten signatures and dates)*

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