Bachelor Program: Oil and gas

Field of Studies: Operation and maintenance of transportation and storage facilities for oil, gas and refined products

Years of Studies: 4

Language of Training: Russian

| **№** | **Subject** | **Semester** | **Hours** | **Credits** |
| --- | --- | --- | --- | --- |
| **B.1.1 Mandatory part of Unit 1** | | | | |
| B.1.1.1 | History | 1-2 | /144 | /4 |
| B.1.1.1 | History | 1 | 72 | 2 |
| B.1.1.1 | History | 2 | 72 | 2 |
| B.1.1.2 | Philosophy | 5 | 108 | 3 |
| B.1.1.3 | Foreignlanguage | 1-3 | /288 | /8 |
| B.1.1.3 | Foreignlanguage | 1 | 108 | 3 |
| B.1.1.3 | Foreignlanguage | 2 | 108 | 3 |
| B.1.1.3 | Foreignlanguage | 3 | 72 | 2 |
| B.1.1.4 | Constitutional state and present | 2 | 72 | 2 |
| B.1.1.5 | Quality management and project management of the oil and gas industry | 4 | 72 | 2 |
| B.1.1.6 | Economy | 5 | 72 | 2 |
| B.1.1.7 | Maths | 1-3 | /396 | /11 |
| B.1.1.7 | Maths | 1 | 144 | 4 |
| B.1.1.7 | Maths | 2 | 144 | 4 |
| B.1.1.7 | Maths | 3 | 108 | 3 |
| B.1.1.8 | Physics | 1-3 | /396 | /11 |
| B.1.1.8 | Physics | 1 | 144 | 4 |
| B.1.1.8 | Physics | 2 | 108 | 3 |
| B.1.1.8 | Physics | 3 | 144 | 4 |
| B.1.1.9 | Chemistry | 1-2 | /180 | /5 |
| B.1.1.9 | Chemistry | 1 | 72 | 2 |
| B.1.1.9 | Chemistry | 2 | 108 | 3 |
| B.1.1.10 | Ecology | 7 | 72 | 2 |
| B.1.1.11 | Computerscience | 1 | 144 | 4 |
| B.1.1.12 | Psychology | 5 | 108 | 3 |
| B.1.1.13 | Generalgeology | 1 | 144 | 4 |
| B.1.1.14 | HealthandSafety | 7 | 144 | 4 |
| B.1.1.15 | [Classical mechanics](https://translate.academic.ru/classical%20mechanics/ru/en/) | 4 | 144 | 4 |
| B.1.1.16 | Technicalmechanics | 5 | 144 | 4 |
| B.1.1.17 | Metrology, qualimetry and standardization | 3 | 108 | 3 |
| B.1.1.18 | Thermodynamicsandheattransfer | 4 | 144 | 4 |
| B.1.1.19 | Hydraulics and oil and gas hydromechanics | 7 | 180 | 5 |
| B.1.1.20 | Fundamentals of construction of oil and gas wells | 2 | 108 | 3 |
| B.1.1.21 | Fundamentals of oil field development and operation | 3 | 108 | 3 |
| B.1.1.22 | Fundamentals of development and operation of gas, gas-condensate fields and underground gas storages | 3 | 72 | 2 |
| B.1.1.23 | Fundamentals of transportation, storage and processing of hydrocarbons | 3 | 108 | 3 |
| B.1.1.24 | Technological equipment for the oil and gas industry | 5 | 108 | 3 |
| B.1.1.25 | Physicaleducationandsports | 1 | 72 | 2 |
|  | **TOTAL** |  | **3636** | **101** |
| **B.1.2 The variable part of Unit 1** | | | | |
| B.1.2.1 | Sociologyandpoliticalscience | 8 | 108 | 3 |
| B.1.2.2 | Oilandgaschemistry | 3 | 108 | 3 |
| B.1.2.3 | Descriptivegeometryand CGI | 1-2 | /216 | /6 |
| B.1.2.3 | Descriptivegeometryand CGI | 1 | 108 | 3 |
| B.1.2.3 | Descriptivegeometryand CGI | 2 | 108 | 3 |
| B.1.2.4 | Materials science and technology of structural materials | 4 | 144 | 4 |
| B.1.2.5 | Electrical engineering | 3 | 108 | 3 |
| B.1.2.6 | Fundamentals of automation of technological processes of oil and gas production | 4 | 144 | 4 |
| B.1.2.7 | Engineering surveying | 1 | 108 | 3 |
| B.1.2.8 | Underground gas storage technology | 7 | 144 | 4 |
| B.1.2.9 | Construction of main oil and gas pipelines | 6 | 180 | 5 |
| B.1.2.10 | Fundamentals of corrosion processes of oil, gas and refined products transportation and storage | 5 | 108 | 3 |
| B.1.2.11 | Preparation for transportation of oil, gas and refined products | 6 | 108 | 3 |
| B.1.2.12 | Operation and repair of main oil and gas pipelines and gas and oil storage | 5-6 | /324 | /9 |
| B.1.2.12 | Operation and repair of main oil and gas pipelines and gas and oil storage | 5 | 144 | 4 |
| B.1.2.12 | Operation and repair of main oil and gas pipelines and gas and oil storage | 6 | 180 | 5 |
| B.1.2.13 | Welding technology for pipelines and tanks | 8 | 72 | 2 |
| B.1.2.14 | Energy-saving technologies for transportation and storage of oil and gas | 8 | 72 | 2 |
| B.1.2.15 | Fundamentals of elasticity theory and plasticity theory | 7 | 108 | 3 |
| B.1.2.16 | Diagnostics of objects of transport and oil and gas storage | 5-6 | /288 | /8 |
| B.1.2.16 | Diagnostics of objects of transport and oil and gas storage | 5 | 144 | 4 |
| B.1.2.16 | Diagnostics of objects of transport and oil and gas storage | 6 | 144 | 4 |
| B.1.2.17 | Historical geology | 2 | 144 | 4 |
| B.1.2.18 | Management of production activities in the field of pipeline transportation of oil, gas and refined products | 7 | 72 | 2 |
| B.1.2.19 | Legal support for oil and gas business | 3 | 108 | 3 |
| B.1.2.20 | Systems for protecting line facilities and objects from corrosion | 5 | 108 | 3 |
| B.1.2.21 | Design of oil and gas facilities | 7 | 180 | 5 |
|  | **TOTAL variable part** |  | **2952** | 82 |
| **B.1.3** | **Electives** |  | **1192** | 24 |
| B.1.3.1.1 | Fundamentals of business ethics and corporate culture | 8 | 72 | 2 |
| B.1.3.1.2 | Business etiquette and culture of communication | 8 | 72 | 2 |
| B.1.3.2.1 | Probability theory and mathematical statistics | 4 | 144 | 4 |
| B.1.3.2.2 | Discrete maths | 4 | /144 | /4 |
| B.1.3.3.1 | Operation of gas-distributing networks and gas-distributing stations | 4 | 144 | 4 |
| B.1.3.3.2 | Operation of gas- distributing networks by pressure categories | 4 | /144 | /4 |
| B.1.3.4.1 | Increase of efficiency and reliability of functioning of the main oil and gas pipelines | 4 | 108 | 3 |
| B.1.3.4.2 | Increase of efficiency and reliability of functioning of oil and gas storages | 4 | /108 | /3 |
| B.1.3.5.1 | Environmental safety of industrial facilities of the oil and gas complex | 6 | 144 | 4 |
| B.1.3.5.2 | Environmental protection at oil and gas transportation and storage facilities | 6 | /144 | /4 |
| B.1.3.6.1 | Technology of construction of oil and gas pipelines and gas and oil storages | 7 | 180 | 5 |
| B.1.3.6.2 | Technology of construction of the main pipelines | 7 | /180 | /5 |
| B.1.3.7.1 | Industrial safety during transportation and storage of oil, gas and refined products | 8 | 72 | 2 |
| B.1.3.7.2 | Safe handling of transportation and storage of oil, gas and refined products | 8 | /72 | /2 |
| B.1.3.8.1 | Team sports | 2-6 | /328 | 0 |
| B.1.3.8.1 | Team sports | 2 | 82 | 0 |
| B.1.3.8.1 | Team sports | 3 | 82 | 0 |
| B.1.3.8.1 | Team sports | 4 | 82 | 0 |
| B.1.3.8.1 | Team sports | 5 | 38 | 0 |
| B.1.3.8.1 | Team sports | 6 | 44 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 2-6 | /328 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 2 | /82 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 3 | /82 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 4 | /82 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 5 | /38 | 0 |
| B.1.3.8.2 | Health-improvingphysicalculture | 6 | /44 | 0 |
|  | **Totalvariablepart** |  | **4144** | **106** |
|  | **Totalunit B.1** |  | **7780** | **207** |
|  | **Unit 2 Practice** |  | **864** | **24** |
| **B.2.1** | **MandatorypartUnit 2** |  | **108** | **3** |
| B.2.1.1 | Educational (introductory) practice | 2 | 108 | 3 |
| **B.2.2** | **The variable part of the Unit 2** |  | **756** | **21** |
| B.2.2.1 | Educational (technological) practice | 4 | 216 | 6 |
| B.2.2.2 | Production (technological) practice | 6 | 324 | 9 |
| B.2.2.3 | Externship | 8 | 216 | 6 |
|  | **Unit 3 Statefinalexamination** |  |  |  |
| **B.3** | **State final examination (basic part)** |  | **324** | **9** |
| B.3.1 | Preparation for protection and protection of Graduation Qualification Work |  | 324 | 9 |
|  | **TOTAL direction** |  | **8968** | **240** |
| **F.** | **Elective** |  |  |  |
| F.1 | Oil and gas hydromechanics and stream hydraulics | 5 | 72 | 2 |
| F.2 | Geoinformation technologies for oil and gas transportation and storage | 6 | 72 | 2 |
| F.3 | Calculation methods and equipment for recycling industrial emissions | 7 | 72 | 2 |