Bachelor's Degree Program

OPERATION AND MAINTENANCE OF OIL PRODUCTION FACILITIES

The Bachelor of the profile "Operation and maintenance of oil production facilities" is a direct and direct specialist engaged in the production of oil, gas and gas condensate. It defines the technology for extracting hydrocarbons from the subsurface and the corresponding set of technical means.

A graduate of this specialty can hold the position of an oil and gas production operator. With the accumulation of practical work experience, he can hold the following positions: master of oil production, engineer-technologist for oil and gas production, head of the site, shop, etc. If necessary, the graduate can work in the oil and gas treatment system in the fields, in oil companies engaged in the development of oil and gas fields.

Program length: 4 years
Starting date: September, 1st
Language of instruction: English
Tuition fee per year: 203 768 rubles (~ 2,766 USD)
Program Leader: Prof. Natalia KVESKO

Prerequisites:
- Persons who have a general secondary education confirmed by a standard document on general secondary education or a document on secondary vocational education, or a document on higher education and qualifications are allowed to study the bachelor's degree program.
- Applicants are encouraged to have advanced training in mathematics and natural sciences.
- For persons with secondary (full) general education obtained in educational institutions of foreign countries, admission to a higher educational institution for the first year for training in bachelor's degree programs is carried out:
  - According to the results of entrance tests, the form of which is determined by the university independently.

Qualification: Bachelor

Skills/ objectives:
1. Is able to implement and adjust the technological processes of oil and gas production in accordance with the chosen field of professional activity
2. Capable of performing diagnostics, maintenance, repair and operation of technological equipment
3. Is able to perform work on the control of work safety during the technological processes of oil and gas production
4. Is able to draw up technological, technical, field documentation for the maintenance and operation of oil and gas industry facilities
5. Able to apply the process approach in practice, combine theory and practice
6. Able to perform work on the design of technological processes of oil and gas production
7. Is able to form proposals for the introduction of advanced technologies in the operation of well equipment, advanced methods and techniques of labor in the work of personnel
8. It is able to simulate the technological process of hydrocarbon production and use specialized software products
9. Is able to ensure compliance of technological operations for the extraction of hydrocarbon raw materials with regulatory and technical documentation and develop measures for the prevention and elimination of accidents and incidents.

Contacts:
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OPERATION AND MAINTENANCE OF OIL PRODUCTION FACILITIES

CURRICULUM

- History
- Philosophy
- Foreign language
- Economy
- Legal studies
- Mathematics
- Computer science
- Fundamentals of Mechanics and molecular Physics
- Electromagnetism and waves
- Quantum Physics
- General Chemistry
- Inorganic Chemistry
- Ecology
- Descriptive geometry
- Engineering and Computer graphics
- Applied Mechanics
- Resistance of materials
- Theory of mechanisms and machines
- Machine parts and design basics
- Hydraulics and oil and gas hydromechanics
- Electrical engineering
- Thermodynamics and heat transfer
- Metrology, qualimetry and standardization
- Fundamentals of automation of technological processes of oil and gas production
- Life safety
- Physical education and sports
- Cultural Studies
- Fundamentals of oil and gas business
- Materials science and technology of structural materials
- Applied Physical Culture and Sports (elective subjects)
- Geology and Lithology
- Physical and colloidal Chemistry
- Physics of the reservoir
- Geological bases of development of NGM
- Continuum mechanics
- Oil and gas field geology
- Research methods and tools
- Fundamentals of geophysical methods for studying oil and gas wells
- Foreign language professional
- Underground hydro mechanics
- Installation and operation of oil and gas equipment
- Fundamentals of mathematical modeling
- Petrophysics
- Development of oil and gas fields
- Oil and gas well productivity management
- The system of collecting and preparation of borehole production
- Development of gas, gas condensate and gas-oil fields
- Hydrodynamic studies of reservoirs and wells
- Exploitation of oil and gas fields
- Software products for the development and operation of oil and gas fields
- Energy state of the productive formation
- Fundamentals of economics and organization of oil and gas production
- Methods for increasing oil recovery
- Major and underground well repairs
- Methods and technologies of well development
- Fundamentals of management
- Fundamentals of design development
- Software products in the design of development
- Calculation of reserves and assessment of resources of oil and gas deposits
- Oil and gas well development and operation systems
- Geological interpretation of well geophysical survey results
- Geophysical studies of wells and reservoirs
- Methods and technologies for maintaining reservoir pressure

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