

Master Degree Program in Offshore Drilling

Curriculum

Semester 1

- Philosophy and methodology of science
- Business foreign language
- Mathematical modeling in tasks of oil and gas industry
- General theory of dynamic systems
- Statistical methods of data processing
- Technological processes of oil and gas industry

Semester 3

- Design Methodology in Oil-and-Gas Extraction Industry and Project Management
- Economics and O&G Production Management
- Features of offshore well casing
- Design of well construction in the shelf area
- Features of well construction in the shelf area of the Arctic Region
- Engineering and technology of marine drilling

Semester 2

- Business foreign language
- General theory of dynamic systems
- Trouble and accident prevention, breakdown elimination in marine drilling / the modern equipment and the tool for remedial works of platform wells
- Methods and technology of well completion / modern technologies of well workover and well recovery
- Features of construction of wells in frozen rocks / features of offshore oil-and-gas-field development

Semester 4

- Design of well construction in the shelf area
- A drilling equipment for offshore borehole drilling / features of washing and controlled directional well and horizontal wellbore casing
- HSE issues at well construction on the continental shelf / features of geophysical surveys of platform wells
- Control of platform well drilling process and simulator system preparation / control equipment of well bore maintenance

Relevance of the program:

The big interest in offshore drilling is caused today by enormous reserves of the hydrocarbons concentrated in the Russian shelf area which make 20% of world oil and gas reserves, and the main part of them is the Arctic shelf. By 2020 in the shelf area of Russia 100 projects in prospecting and operational drilling will be implemented. The quantity of mobile drilling platforms will be increased from 15 to 30. The key customers are Gazprom, Rosneft, Lukoil and Gazprom neft. There is an increasing demand for highly qualified specialists in the field of well construction in offshore hydrotechnical facilities.

The program is aimed at:

- training of highly qualified specialists for oil and gas industry of Russia, the far abroad and neighboring countries
- close interaction of Drilling of Oil and Gas Wells Department with the leading companies of oil and gas industry contributes to relating profound theoretical preparation with practical experience of work at well construction in the off-shore conditions

Advantages of the program:

- Involvement of the leading foreign and Russian scientists and experts of branch science
- Increase in level of proficiency in English
- Availability of the computer simulators providing to operate process of well construction
- Possibility of having a production practice in industrial work
- Training trajectory building-up

After training you will be able:

- To plan research, design-and-engineering and operational kinds of activity; To make analytical experiments at well construction in offshore fields
- To solve a wide range of the professional tasks connected with design and construction of wells in the off-shore conditions
- To operate oil and gas production.

Job Prospects:

PJSC Gazprom, OOO Gazprom flot, PJSC Rosneft, PJSC Lukoil, PJSC Gazprom neft, PC Zarubezhneft, etc.

Important information

Course duration: 2 years

Study options: off-budget, full-time

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