

OIL AND GAS WELL DRILLING TECHNOLOGY

SUBJECT



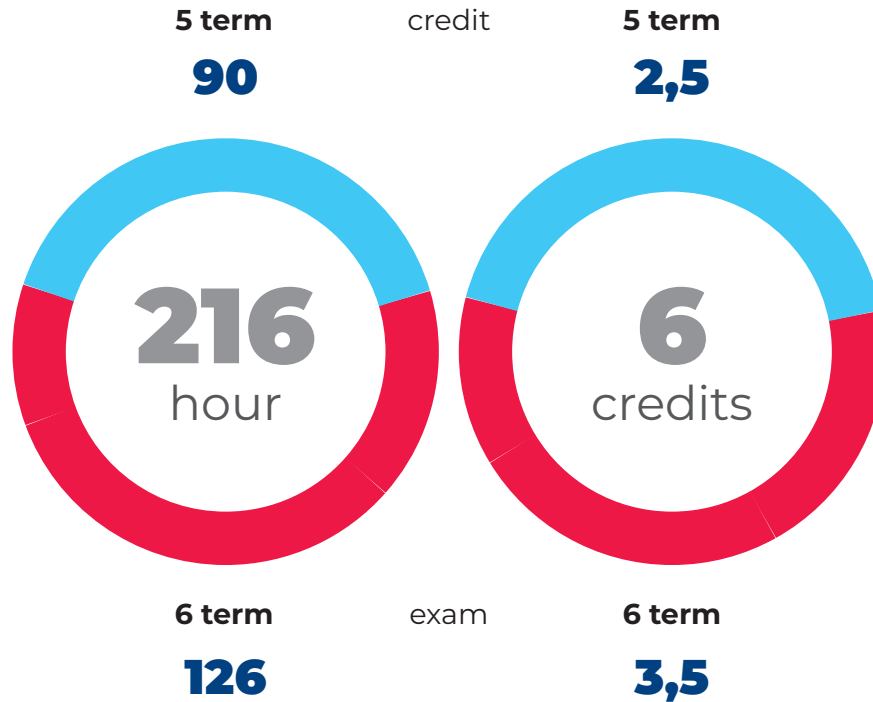
**SAMARA
POLYTECH**
Flagship University



**Pyotr A.
GARANIN**

PhD,
Associate Professor
Drilling of Oil and Gas Wells
Department

WORKLOAD OF THE SUBJECT



- Continuum mechanics
- Nanotechnology in the oil and gas industry



LINKS WITH OTHER SUBJECTS

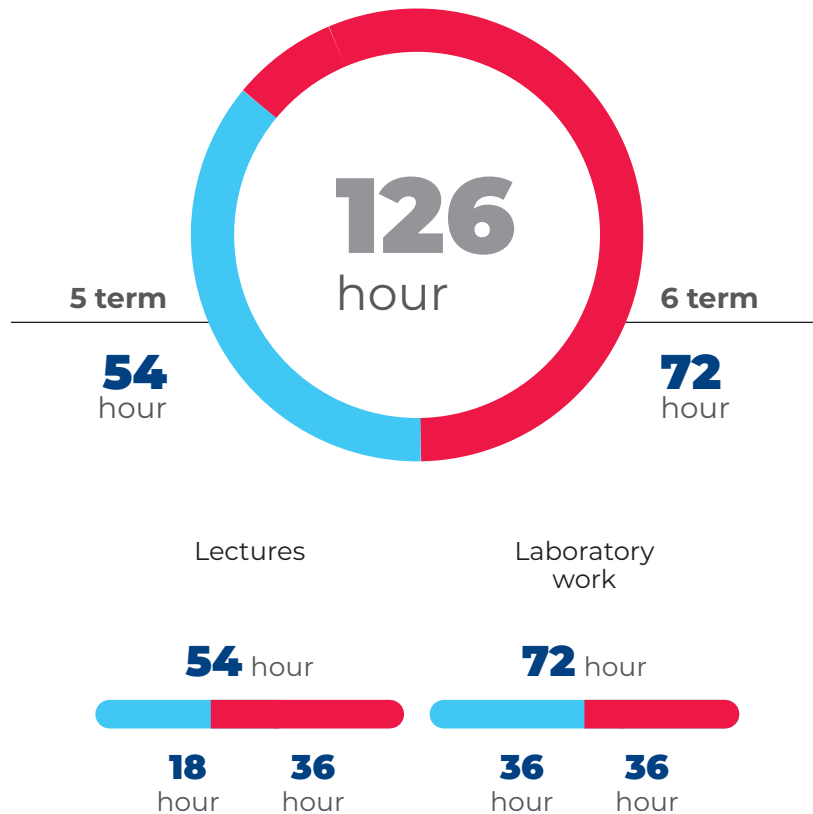


- Drilling of directional and horizontal wells
- Underground hydromechanics



WORKLOAD

CLASSROOM WORK





GOALS

- To implement and adjust technological processes in the construction, repair and operation of wells for various purposes and the profile of the trunk on land and in the sea, transport and storage of hydrocarbon raw materials
- To perform operational control over the technical condition of technological equipment used in the construction, repair, reconstruction and restoration of oil and gas wells



TASKS

- To study the main types of field technological equipment used in oil and gas production
- To develop the ability to carry out operational control over the technical condition of technological equipment used in the construction, repair, reconstruction and restoration of oil and gas wells
- To master the skills of calculation and analysis of technological parameters in the construction, repair, reconstruction and restoration of oil and gas wells



LECTURES

5,6 TERM

- General information about drilling
- Drilling methods
- Design and characteristics of the bottomhole motors
- Causes of well curvature
- Directional drilling
- Design of inclined wells
- Core drilling



LABORATORY WORK

5,6 TERM



- Study of geological technical order
- Determination of drilling mud density
- Determination of the viscosity of drilling mud
- Determination of sludge content
- Determination of drilling mud water recovery
- Determining the value of the statistical shear stress
- Determination of daily sediment and stability of clay solution
- Determination of the spreadability of cement mortar
- Determination of the consistency and time of thickening of cement mortars
- The concept of pumping cement mortar and its dependence on time
- Determination of setting time of cement mortar
- Determination of the compressive strength of cement stone
- Determination of density of cement mortar
- Determination of water yield of cement mortar
- Evaluation of the influence of colmating properties of drilling fluids on the productive formation



EQUIPMENT AND LABORATORIES





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