

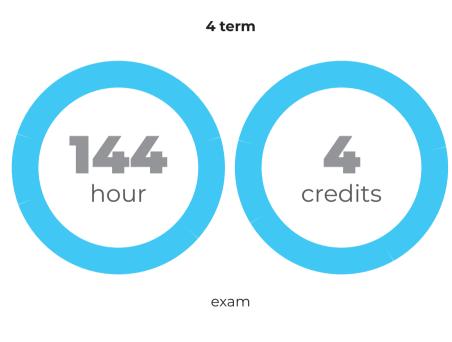




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WORKLOAD OF THE SUBJECT



- Oil field Geology
- Geology and lithology



LINKS WITH OTHER SUBJECTS



- Drilling fluids
- Development of oil and gas fields







WORKLOAD

CLASSROOM WORK



Practical classes

Lectures

Laboratory work

24 hour

24 hour

16 hour





GOAL

Obtaining the ability to perform technical control of conditions and performance of drilling equipment and the storage conditions of materials on the drilling site



TASKS

- To study maintenance, operation and storage of conditions of technological equipment and materials used in drilling wells
- To study the rules of safe storage of drilling equipment and materials
- To get the ability to read technical documentation, analyze data on the operation of technological equipment and evaluate the performance of drilling equipment and materials
- To acquire skills for regular inspection of drilling equipment and storage conditions of materials on the drilling site
- To acquire skills for identifying and fixing the facts of improper storage of drilling equipment and materials on the drilling site





LECTURES

5 TERM

- Block diagram of the drilling machine
- Mud pumps
- Rigs, masts and buildings
- Pulley-block system
- Special purpose drilling rigs

- Downhole machines and mechanisms
- Equipment for preparation of washing liquids and cement mortars
- Equipment for cleaning drilling fluids from sand and sludge





PRACTICAL CLASSES

5 TERM

- Classification of drilling methods
- Methods of rocks destruction when drilling
- Promising methods of rocks destruction when drilling
- Evaluation of drilling efficiency
- Diamond rock-breaking tools and drilling technology
- Diamond drilling using a dualcore pipes
- Drilling rigs and pumps
- Rigs and masts
- Pulley-block system
- Calculation of flushing (purging) of wells and selection of the drilling pump

- Purpose and modern designs of casing and column pipes
- Optimization of the drill string operation
- Calculating the durability of the casing
- Percussion drilling and its varieties
- Slow-rotation and combined drilling
- Drilling method of implementing the tool
- Vibration and auger drilling
- Baring, development and testing of reservoirs
- Composition of a complex drilling rig





LABORATORY WORK

5 TERM

- Rigs and masts
- Selection of drilling equipment
- Getting drilling skills when working on simulators
- Drilling flushing fluids

- Geological and technological outfit
- Calculation of the drilling string
- Well profile calculation



EQUIPMENT AND LABORATORIES









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