

National technical University “Kharkiv polytechnic institute”
Faculty “Technologies of organic substances”
Department of oil, gas and gas-condensate production





About us

The Department was founded in 2010. It is accredited to train students for Bachelor's degree in quantities of 95 people (specialty **“Oil and gas engineering”**), and has a license to prepare Masters in number of 80 people (specialty **“Oil and gas engineering and technology”**). Courses are held in Ukrainian, Russian and English languages. Since its foundation the department has trained students from Angola, Sudan, Syria, Iraq, Lebanon, Congo, Egypt, Guinea, Tunisia, Cote d'Ivoire, Yemen, Tanzania, China, Jordan, Cameroon, Nigeria, Russia, Turkmenistan, Azerbaijan, Uzbekistan and others. Since the day of its foundation the Department has released 195 specialists and 322 bachelors.



The department is located in educational building “Y-4”, on the third floor. The total area of the department is nearly 500 m². The department has lecture classes, computer lab equipped with personal computers with Internet access, three specialized laboratories for physical and chemical tests which are used as a basis for research and degree works, and Stand class. Most lectures are carried out in as multimedia presentations.



The main scientific activities

The department conducts research on grants. These trials owned information and analytical support for monitoring, analyzing and forecasting the development of research and scientific potential in the field of exploration, production, transportation and storage of hydrocarbons. The main areas of work are:

- Development of new technical and technological, scientific and methodological solutions of designing exploitation of Oil and gas fields.
- Studies in drilling oil and gas wells.
- Examination of working projects of oil and gas wells and fields.



In addition to scientific projects, performed on the basis of agreements with companies of the gas industry, department staff (Assoc. prof. Fyk M.I. Assoc. prof. Donskoy D.F., Assoc. prof. Bratah M.I., Sen. Teacher Dobrunov D.E.) are preparing doctoral dissertations.

The result of these scientific work is publishing monographs, industry and corporate regulations. To support the learning process in various central publishing houses published over 40 books and manuals. According to the results of scientific research staff and graduate students published over 300 articles, more than 80 patents.

Laboratory works

- * Releasing the rock sample from oil with Soxhlet apparatus
- * The determination of :
 - * water content at the rock sample by the Dean and Stark method;
 - * rock sample water-and-oil saturation at Zaks apparatus;
 - * sand grain composition by means of sieve method;
 - * rock sample open porosity using the Preobrazhensky method;
 - * absolute-sand-porosity by means of Abbikh mortar;
 - * sulfur content;
 - * chloride salt content in the oil;
 - * mechanical impurities in products;
 - * saturated vapor pressure up to 180 kPa;
 - * flash and ignition points;
 - * paraffin content in the oil;
 - * carbon residue according to Conradson method;
 - * vanadium content in the oil;
 - * light gas condensate componential composition according to the method of the gas chromatography





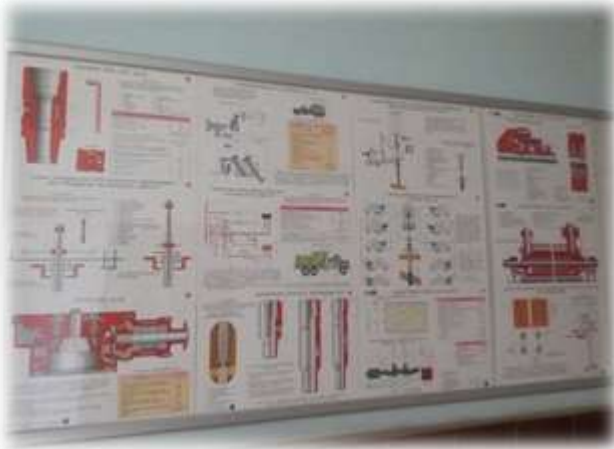
Equipment

Training-practical classroom

- * The department has a training-practical classroom, in which there is real oil and gas equipment provided by partner companies of the department.
- * Equipment: “christmas tree”, valves and latches, tubing of various diameters, equipment for pipe cleaning, training stands that shows various drilling, production and service technologies for oil and gas fields and wells



Stand class



Computer class

Computer lab equipped with personal computers with Internet access



Learning process



The department has an agreement on cooperation and partnership with research institutes and other universities of Kharkov and Ukraine, production, processing and service companies.

Students have the opportunity to participate in international student conferences and competitions.

The best students of senior courses can continue their studies at the University of Magdeburg with obtaining scholarships.



Practical training



Senior students have the opportunity to pass practical training at the training center "Shebelinkagasvydobuvannya", which is located in Kharkov region. Training consists of two parts: theoretical and practical. The practical part takes place directly at the gas producing fields. After the course, students receive a certificate of chosen specialty "Assistant in drilling", "Operator of oil and gas production" and others.

Professional academic disciplines

- Geology of oil and gas
- Physics and Chemistry of fossil fuels
- The technology of drilling oil and gas wells
- The theoretical basis of technology for gas and oil
- Mathematical modeling of mining processes and computer applications
- Machinery and equipment for drilling oil and gas wells and equipment for oil and gas production
- The technology of oil and gas extraction
- Technology development and exploitation of oil, gas and condensate fields
- The technology for collecting and processing gas products
- Modern methods of processing of oil and gas
- Automatic design of the oil and gas industry

Employment opportunities

Graduates of our department successfully apply their knowledge, when working in such foreign companies as:

- * Chevron
 - * Total
 - * Schlumberger and other
- And Ukrainian:

- * Companies that join the association PJSC UkrGasVydobuvannya and its divisions



Schlumberger



Students life



The staff of the department

Head of Department

Doctor of Technical Sciences,
Professor, Academician of the
Ukrainian Oil and Gas
Academy, Laureate of the
State Prize of Ukraine in
Science and Technology
Fyk Ilya Mikhailovich.



Department provides a high level of training through the use of full-time teachers and teachers who work part-time. The staff contains two professors, nine associate professors, ten senior teachers and two assistant teachers.



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