

Petroleum Engineering and gas Technology (PET)



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Program Focus:

Petroleum Engineering and Gas Technology (PET) Programme is focusing on provide the oil and gas industry with a graduates that able to analyze geological data, interpret well-logs, estimate hydrocarbon reserves and evaluate reservoir performance by applying the principles and basic concepts of geology, geophysics and reservoir engineering, plan and construct oil wells, develop oilfield production programs, design early surface facilities plants and field evacuation plans by applying the principles and basic concepts of drilling engineering, production engineering, phase equilibrium, fluid mechanics and flow through porous media, use specialist computer applications and mathematical models to maximize the performance of all petroleum engineering stages, and apply the concepts of project economics and resources evaluation methods for design and decision making under conditions of risk and uncertainty. In addition, the “PET” programme is in continuous collaboration with the UK and Global partners to offer international and national opportunities for graduates to develop their knowledge and entrepreneurship skills and to contribute to community development. PET Programme was launched in September 2005, which make it the first Petroleum Engineering programme among all Egyptian private universities and a well-established programme for more than 19 years of success. PET programme is particularly

commended for the links to industry and research activities. The programme encourages and stimulates the final year students to publish their research work in graduation projects in prestigious Q1 and Q2 scientific journals with high impact factors.

Job Opportunities:

Graduates from the PET Programme are ideally prepared to enter the oil and gas industry with several areas of specialization such as drilling engineering, production engineering and surface facilities engineering, reservoir engineering, and petrophysical engineering.

Modules:

Students through their study years cover a suit of modules that cover the basics as well as the applications of the biochemical engineering field such as (but not limited to):

- Drilling Engineering
- Reservoir Engineering
- Reservoir Rock Properties
- Reservoir Fluid Properties
- Well Testing
- Reservoir Modelling and Simulation
- Surveying for Petroleum Engineers
- Petroleum Development Geology
- Petroleum Economics and Legislation
- Petroleum and Natural Gas Exploration
- Safety & Environment in Petroleum Industry

Research:

Faculty members, staff, and students are conducting research on various fronts of the energy field such as:

- Integrated Reservoir Characterization
- Reservoir Simulation
- Enhanced oil recovery
- Petrophysics and Pore Scale Processes
- Hydraulic Fracturing and Reservoir Geomechanics
- Formation Evaluation
- Natural Gas Engineering
- Drilling and Completions
- Unconventional Resources