



UNIVERSITY OF
RESEARCH AND
ADVANCED STUDIES
GEORGETOWN, GUYANA



www.uorguyana.org



info@uorguyana.org



64 Atlantic Ville,
East Coast Demerara,
Guyana, South America

MSC DEGREE IN OIL AND GAS

The vastness of Oil and Gas industry opens up a wide variety of opportunities for those with the right skillset. Here, you will discover the top 10 degrees needed to enter the oil and gas industry. Then you will have the necessary information to help you decide which field of study best fits your goals.

As a petroleum engineer, you are responsible for finding the most efficient ways to extract oil or gas from a reservoir. At the highest level, you will be in charge of all facets of the exploration and drilling process.

However, during the earliest phases of your career, you will most likely specialize in one of these sub-disciplines:

Drilling engineering

Drilling engineers develop the plan for where the drilling will begin. You will be part of the team that designs the equipment, and at higher levels, you may even become the site supervisor.

This specialized discipline will allow you to work on dry land or at a drilling rig offshore. In addition, you will work collaboratively with other engineers, geologists, and management teams throughout your career.

Production engineering

Once the designs for the drilling rig are in place, the production engineer takes over. The main focus is to set up the well drilling facilities and keep track of production output. You will also keep track of fluid and waste disposal along the way.

Your knowledge of fluid dynamics comes into play as you monitor complicated hydraulics systems. You will also utilize your design skills to help build reservoir

models. In most settings, you will divide your time equally between being in the office and working in the field.

Reservoir engineering

Reservoir engineers apply their scientific knowledge of geology, applied physics, and chemistry to design oil and gas reservoirs. In addition, they need a working knowledge of the complicated regulations associated with protecting the environment.

As a reservoir engineer, you will be working closely with geologists, chemists, and design engineers to develop a plan for reservoir sustainability. For this reason, you will need to be comfortable multi-tasking and finding quick solutions to any potential problems.

Petrophysical engineering

Petrophysics is the study of the physical properties of oil and gas. As someone who works in this field, you will regularly take soil and rock samples. You will then analyze the data you collect and construct reports on the feasibility of the drilling site.

A Master's degree in petroleum engineering will provide a good start. However, if you are going to pursue a career as a petrophysicist, you need to take electives in geology and advanced physics.

Surface facilities engineering

The facilities engineer position is more managerial than the other specialties. It involves several essential duties, such as:

- Construction management
- Cost tracking
- Inventory control



UNIVERSITY OF
RESEARCH AND
ADVANCED STUDIES
GEORGETOWN, GUYANA

 www.uorguyana.org
 info@uorguyana.org
 64 Atlantic Ville,
East Coast Demerara,
Guyana, South America

- Procurement
- Layout planning
- Safety programming

As a facility engineer, you will collaborate with others to ensure full compliance with federal and state regulations. You will also be in charge of hiring others and conducting employee safety meetings.

A bachelor of science degree in petroleum engineering will prepare you for the challenges facing today's oil and gas professionals. Although heavy on math and science, the course study also features business management and leadership, attributes necessary for coordinating engineering teams.

Degree Type:

MSc DEGREE

Entry Requirement: Good Bachelor's Degree or Higher Diploma

Next Start Date:

January 2024

Fees: USD\$15,000.

Awarding Institution:

University of Research And Advanced Studies (UOR)

Mode of Delivery:

Full Time OR Part Time Attendance Blended with On Line for 1 year