

# Oil & Natural Gas Technician

## ONGT 110 Introduction to Petroleum Industry (1 credit, 1 lecture, 0 lab)

The course provides an overview of the oil and gas industry, focusing on the procedure for extracting oil and gas from the underground source. Students will be introduced to basic oil and gas field concepts and will explore the multitude of career options available in this ever-changing and growing industry.

## ONGT 111 Oil and Gas Production I (3 credit, 2 lecture, 3 lab)

This course consists of the study of the principles of drilling methods and drilling systems, including drilling fluids, bit programs, casing and cementing, well control, and drilling data analysis. Students will explore many issues related to conventional well development and specialty applications, including horizontal drilling. Emphasis will be placed on the applications of new technology. **Pre-Requisite:** ONGT 110 – Introduction to Petroleum Industry.

## ONGT 112 Artificial Life Systems (3 credit, 2 lecture, 3 lab)

This course is designed to provide a general overview of the common downhole production systems including: sucker-rod pumps, gas lift, plunger lift, and submersible pumps. Students will learn about each method and the equipment typically associated with each system. **Pre-Requisite:** ONGT 110 – Introduction to Petroleum Industry; and ONGT 111 – Oil and Gas Production I. **Co-Requisite:** DSL 131 – Engine Electronics; and DSL 158 - Hydraulics

## ONGT 113 Oil and Gas Production II (3 credit, 2 lecture, 2 lab)

This course will familiarize the students with the duties of an oil and gas technician. Topics covered include: natural gas treatment; dehydration and compression system and equipment; the produced water treatment and handling system and equipment; auxiliary systems and equipment; artificial lift and enhanced recovery techniques; pumping and transportation systems; well completion; and safety, health and environmental consideration relative to the field of oil and gas production. **Pre-Requisite:** ONGT 110 – Introduction to Petroleum Industry; ONGT 111 – Oil and Gas Production I; DSL 131 – Engine Electronics; and DSL 158 - Hydraulics