

# Petroleum Engineering Technology (Co-op)

The reliance upon fossil fuels, particularly oil and gas, to supply Canada's growing industrial and domestic requirements has increased rapidly during the past decade. However, the increasing world demands for these fuels and the growing uncertainty of traditional sources of supply have intensified Canada's commitment to become self sufficient in its fossil energy needs. With sustained discoveries of oil and gas resources, along the east coast and in the Arctic regions, and with proper management and development policies, this goal may be attainable. Continued oil and gas discoveries on the Grand Banks off Newfoundland have intensified interest and activities in the science and technology of developing these reservoirs. The three year program leading to the Diploma of Technology is designed to train technologists for all aspects of the oil and gas industry.

### ACCREDITATION

This program is accredited by the Canadian Technology Accreditation Board under the mandate of the Canadian Council of Technicians and Technologists.

The academic credentials of graduates of accredited technology programs are recognized internationally by the signatories of the Sydney Accord.

### OBJECTIVES

1. To provide a basic knowledge of the petroleum industry.
2. To introduce the special characteristics, challenges and constraints associated with oil and gas extraction.
3. To provide knowledge and skills related to all aspects of oil and gas exploration and production.
4. To provide knowledge of and experience in working with the specialized hardware and equipment associated with the oil industry.

### CURRICULUM

A primary year of core technology curriculum which includes courses in Communication Skills, Physics, Chemistry, Mathematics, Engineering CAD Graphics, Computer Applications, and Electrotechnology.

An intermediate and advanced curriculum in the second and third years of study which consists of technical courses such as Mechanics, Fluids, Thermodynamics, Materials and Processes, Instrumentation and Technological Thesis (Design and Project). Discipline specific courses in Drilling, Production, Facilities, Reservoir and Geology.

A minimum twelve week work term which provides students the opportunity to gain valuable related work experience. To be eligible for work placement, students must be in clear academic standing with a minimum GPA of 2.00.

### EMPLOYMENT OPPORTUNITIES

The graduate of this program may obtain employment in all aspects of the petroleum industry. These opportunities include but are not limited to oil and natural gas exploration, production and processing, refining, oil and gas pipeline construction, gas utilities, as well as a variety of related activities associated with refining, transportation.

Graduates with two years of appropriate work experience may receive the designation of Professional Technologist (P. Tech).

### DIPLOMA

- Three years
- September start
- Ridge Road Campus (St. John's)

### COURSES

**CODE TITLE Hrs/wk**  
Semester 1 and 2 - Refer to Engineering Technology (First Year)

Semester 3 Technical (Intersession I)			Cr	Le	La
CH2330	Petroleum Chemistry I		3	5	3
EG1520	Engineering Graphics		2	2	3
GE1500	Petroleum Geology I		2	3	3
SP2410	Safety Engineering Technology		2	5	0

Semester 4			Cr	Le	La
CH2331	Petroleum Chemistry II		4	3	3
CM2300	Report Writing		2	2	0
MA2100	Mathematics		5	5	0
CF2540	Mechanics of Solids		3	3	1
FM2100	Fluid Mechanics		3	3	1
GE1501	Petroleum Geology II		4	3	3
CF1100	Materials and Processes		3	3	1

Semester 5			Cr	Le	La
MA1670	Statistics		4	4	1
PM2110	Drilling Technology I		4	3	2
TD2100	Thermodynamics		3	3	1
GE2500	Petroleum Geology III		4	3	3
PM2500	Facilities Engineering		4	3	2
CI1210	Instrumentation and Controls		3	2	2
SD2220	Introduction to the Work Place		1	1	0

Semester 6 (Technical Intersession II)			Cr	Le	La
FT1610	Petroleum Camp				P/F
WT1400	Work Term		5	0	0

### Petroleum Field Camp

Students in Petroleum Engineering Technology will be required to complete a one week drill camp (FT1610) during semester 7 prior to beginning their work term.

### Safety Certifications

Students in Petroleum Engineering Technology will be required to complete safety certifications in the following training: H2S, First Aid, WHMIS and Transportation of Dangerous Goods (TDG) during the second year of studies.

Semester 7			Cr	Le	La
PM2111	Drilling Technology II		4	3	2
TD2120	Thermodynamics		3	3	1
PH3100	Geophysics		3	2	2
PM2501	Facilities Engineering		4	3	2
PM2210	Petroleum Production I		4	3	2
PM2310	Reservoir I		4	3	2
EC1700	Engineering Economics		2	2	0

Semester 8			Cr	Le	La
PR3711	Technological Thesis		4	1	2
PM3110	Drilling Technology III		2	1	3
PM2400	Logging and Formation Evaluation		5	4	3
PM2211	Petroleum Production II		4	3	2
PM2301	Reservoir II		5	4	3
CG3400	Engineering Management		3	3	0
CM2200	Oral Communications		2	2	0

Semester 9 (Technical Intersession III)			Cr	Le	La
PM2401	Production Logging & Applications		2	3	3
PM3210	Petroleum Production III		5	8	2
EN1300	Environmental Technology		3	6	0

