

Mechanical Engineering Technology

Mechanical Engineering Technologists develop a diverse technical background, good "hands-on" aptitude, and excellent people skills. These attributes make them well suited to employment in a wide variety of industries in both field and management related roles.

ACCREDITATION

This program is accredited by the Canadian Technology Accreditation Board under the mandate of the Canadian Council of Technicians and Technologists. Graduates are also eligible for third class Power Engineering certification.

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

OBJECTIVES

Through this program of study, graduates are equipped with the technical knowledge and "hands-on" skills required for:

1. The design, implementation, installation, operation, maintenance, and management of power generation systems, Heating Ventilation and Air Conditioning (HVAC) systems, and general mechanical support systems which are required for petroleum production systems, petroleum refineries, processing plants, office buildings and residences.
2. The development of mechanical working drawings and computer based models of mechanical systems using AutoCAD and related engineering analysis software.

CURRICULUM

A primary year technology core 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 discipline specific courses such as Mechanics, Strengths, Thermodynamics, Materials and Processes, Machine Design, Engineering Graphics, Hydraulics and Pneumatics, Economics, Engineering Management, Quality Assurance, Maintenance, Machine Shop, Computer Numerical Control (CNC), Machining Process Controls and Technological Thesis (Design Project).

A minimum seven week work placement 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 broad base of competencies acquired through this program of study prepares graduates for careers in a wide variety of industries including the petroleum sector, mining, electrical power generation, food processing, manufacturing, and engineering consulting. Previous graduates have been successful in obtaining employment relevant to their field with such companies as HMDC, Syncrude, Schlumberger, Haliburton Services Ltd., J.B. Irving, the Iron Ore Company of Canada, INCO, Johnson Controls, and BFL Consultants.

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)				
EG1520	Engineering Graphics for Mechanical Engineering Technologies	2	2	3
MH1110	Mechanical Systems	4	8	2
SP2400	Safety Engineering	2	5	0
SP1200	Machine Shop Practice	1	0	5
Semester 4				
CF1100	Materials and Processes	3	3	1
CF2540	Mechanics of Solids	3	3	1
EC1700	Engineering Economics	2	2	0
MA2100	Mathematics	5	5	0
MH2330	Power Plant Components	5	4	2
SP1700	CNC Machining I	3	2	2
TD2100	Thermodynamics	3	3	1
Semester 5				
CF1120	Materials and Processes	3	3	1
FM2100	Fluid Mechanics	3	3	1
FM3100	Fluids (Hydraulics and Pneumatics)	3	3	1
MA2130	Applied Mathematics	5	5	0
MH2820	Power Plant Systems	3	4	1
MH2801	HVAC Systems	3	3	1
SP1400	Facilities Engineering	3	2	2
Semester 6 (Technical Intersession II)				
WT1460	Work Placement	5	0	0
Semester 7				
CF2511	Strength of Materials	3	3	1
C11210	Instrumentation Controls & Automation	3	2	2
FM2201	Mechanics	3	3	1
MH4301	Power Plant Design Calculations	4	4	1
MH3320	Building System Design	4	4	1
SP2300	Quality Assurance	3	3	0
TD2120	Thermodynamics	3	3	1
Semester 8				
CG3400	Engineering Management	3	3	0
C11211	Instrumentation Controls & Automation	3	2	2
FM3200	Machine Design	3	3	1
MH4401	Refrigeration Systems	3	3	2
MH4500	Prime Movers	4	3	2
MH4600	Plant Systems Design	3	3	0
PR3711	Technological Thesis	4	1	2
TD3100	Applied Thermodynamics (Ref. & A.C.)	3	3	1

