

# Industrial Engineering Technology (Co-op)

Industrial Engineering Technologists rely on strong technical ability, good business judgment, and superior people skills to improve safety, quality, and productivity in the production and service sectors. This unique combination of skills makes graduates attractive to employers in a wide variety of industries including manufacturing, food processing, fabrication, construction, government, consulting, and health care.

### ACCREDITATION

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

This program is also a CAFCE (Canadian Association for Cooperative Education) accredited program.

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

### OBJECTIVES

1. To provide graduates with a strong technical education in industrial engineering principles and analysis techniques.
2. To provide graduates with the complementary business knowledge needed to achieve process designs that are both safe and productive while ensuring quality standards are met at minimal cost.
3. To provide graduates with problem solving and management strategies that are fundamental to success in various industry settings.

### CURRICULUM

General Education consisting of Communication Skills, Mathematics, Physics, Chemistry, Electrotechnology, Computers, and Engineering Graphics (CAD).

Generic engineering technology education consisting of computer based analysis and design, materials science, strength of materials, hydraulics and pneumatics, and shop processes.

Extensive industrial engineering technology education such as ergonomics, work measurement, plant layout, facility planning, production planning, and computer integrated manufacturing.

### EMPLOYMENT OPPORTUNITIES

Graduates of this program may obtain employment in both the service and production sectors. Previous graduates have been successful in obtaining employment with such companies as Haliburton, Pratt and Whitney, Fishery Products International, Iron Ore Company of Canada, Newdock and the Health Care Corporation.

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

### DIPLOMA

- 40 months
- 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
CG1500	Work Methods & Measurement		4	3	2
EG1520	Engineering Graphics for Mechanical Engineering Technologies		2	2	0
SP2410	Safety Engineering Technology		2	2	0
SP1210	Machine Shop Practice		2	1	2

The Course and Lab hours per week are based on a 15 week semester. In intersession, the Course and Lab hours will be adjusted to reflect the shorter semester length. Refer to course outline.

Semester 4			Cr	Le	La
CF1100	Materials & Processes		3	3	1
CF2540	Mechanics of Solids		3	3	1
MA1670	Statistics		4	4	1
DE1110	Applied Research		3	3	0
SP1830	Metrology and Quality Control		4	3	2
CG2160	Lean Methods		3	3	1
SE1070	Human Factors Engineering		3	3	1

Semester 5			Cr	Le	La
WC1400	Co-op Work Term I		5	0	0

Semester 6			Cr	Le	La
CF1120	Materials and Processes		3	3	1
FM2201	Mechanics		3	3	1
MA2100	Mathematics		5	5	0
SP2300	Quality Assurance		3	3	0
DE3300	Information Systems Design		3	2	2
TD2100	Thermodynamics		3	3	1
DE2350	Logistics and Project Management		3	3	1

Semester 7			Cr	Le	La
WC1401	Co-op Work Term II		5	0	0

Semester 8			Cr	Le	La
FM3200	Machine Design		3	3	1
PR3600	Technical Thesis (Seminar)		P/F	0	1
CG3400	Engineering Management		3	3	0
C11210	Instrumentation Controls & Automation		3	2	2
FM3100	Fluids (Hydraulics and Pneumatics)		3	3	1
SP2510	Plant and Facility Layout		4	3	2
PS1330	Organizational Behaviour		3	3	0
DE1200	Operations Research		3	3	1

Semester 9			Cr	Le	La
WC2400	Co-op Work Term III		5	0	0

Semester 10			Cr	Le	La
PR3725	Technical Thesis		4	1	2
CG3500	Production Planning		3	3	1
EC1700	Engineering Economics		2	2	0
DE3410	Computer Integrated Manufacturing		4	3	2
LW1500	Law and Ethics		3	3	0
SP1400	Facilities Engineering		3	2	2
AC2280	Accounting		4	4	0

