

DIPLOMA

- Three years
- September start
- Burin Campus

COURSES

CODE	TITLE	Hrs/wk		
Semester 1 and 2 - Refer to Engineering Technology (First Year)				
Semester 3 (Technical Intersession I)				
AE1200	Electronic Devices	5	7	4
CI1310	Electrical/Electronic Fabrication Techniques	3	4	5
ET2100	Electrotechnology	3	5	3
Semester 4				
AE2300	Analog Electronics I	4	3	3
DP1100	Digital Electronics	4	3	2
DR2300	Advanced Autocad	2	1	2
FM2200	Mechanics	3	3	1
MA2100	Mathematics	5	5	0
PE1500	Electrical Machines	4	3	2
Semester 5				
AE2301	Analog Electronics II	4	3	3
CT1120	Procedural Program in C++	4	3	3
FM2100	Fluid Mechanics	3	3	1
MA2101	Mathematics	5	5	0
PE2120	Electrical Practices	4	3	2
XD2300	Electromechanical Motor Controls	4	3	2
Semester 6 (Technical Intersession II)				
CM2200	Oral Communications	2	4	0
CM2300	Report Writing	2	4	0
FM2201	Mechanics	3	6	2
XD1810	Solid State Motor Controls	4	6	4
Semester 7				
CI2800	Process Measurement I	3	2	2
CI2810	Process Control I	3	2	2
DP2400	Digital Microprocessors	4	3	2
EC1700	Engineering Economics	2	2	0
FM3100	Fluids (Hydraulics/ Pneumatics)	3	3	1
MA1670	Statistics	4	4	1
XD2500	Programmable Controllers I	4	3	2
Semester 8				
CG3400	Engineering Management	3	3	0
CI2801	Process Measurement II	4	3	3
DP2150	Interfacing & Microcontrollers	4	3	2
DP2340	Robotics & CAM	4	3	2
PR2721	Technological Thesis	3	0	3
XD2900	Programmable Controllers II	4	3	2
XD1350	Environment Ethics	2	2	0

ENGINEERING TECHNOLOGY

Electrical Engineering Technology (Industrial Controls)

The three-year Electrical Engineering Technology program, with a specialization in Industrial Controls, has been developed in response to provincial and national needs with input from professionals associated with the design, installation and maintenance of Industrial Control systems. The common first year emphasizes academic subjects designed to support the technical subjects emphasized in the second and third years. Projects and assignments are designed to be as close as possible to the type of work students will encounter upon graduation. Once in the workforce, the graduate Technologist may be responsible for designing, installing, commissioning, maintaining, and troubleshooting various industrial control systems ranging from simple motor controls to complicated automated systems.

Every effort is made to expose students to the latest technology. Computers are used as a tool in problem-solving in many technical courses. The technical training focuses on theoretical and practical skills pertaining to motors and generators, motor controls, and variable speed drives; industrial analog/digital electronics; microprocessors; programmable logic controllers; industrial instrumentation; process control; pneumatic/hydraulic systems; and robotics.

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.

Note: This program may not be suitable for applicants who do not have normal colour perception.

OBJECTIVES

As engineering technologists, graduates of this program will have the knowledge and skills that will allow them to:

1. Design, install, commission, maintain and troubleshoot industrial control systems.
2. Design, analyze and maintain motors and motor control systems.
3. Work with an awareness of, and concern for, environments and ethical issues that confront the practicing

technologist in the workplace.

4. Foster and promote good safety practices and procedures.
5. Work and communicate as a member of a team with other professionals, as well as supervise the work of skilled technicians, and trade persons.

CURRICULUM

General education consisting of Communication Skills (oral and written), Mathematics, Physics, Chemistry, Electrotechnology, Engineering Graphics, Technology Awareness and Student Success.

Extensive training in the theory and principles of Industrial Electronics; Industrial Electrical Power Distribution Systems; Electrical Machines, Fluid Power; Advanced Autocadd; Engineering Economics; and Engineering Management.

Specific education in Industrial Motor Control Systems; Variable Speed Motor Drives; Programmable Logic Controllers; Microprocessors and Microcontrollers; Robotics and Computer Aided Manufacturing; and Industrial Instrumentation.

A large portion of the training includes practical skills and specific techniques. Projects are designed to reflect industrial work situations.

EMPLOYMENT OPPORTUNITIES

Typical employers would come from the following areas: marine, mining, mineral processing, paper mills, oil refineries, off-shore oil and gas production, petrochemical plants, utilities, consulting engineering firms, Provincial and Federal government departments, food packaging and processing, and the service sector. Positions of employment range from engineering design to maintenance and support.

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

