

# Electronics Engineering Technology General

The three year Electronics Engineering Technology Program is general in nature to ensure graduates will have access to job opportunities in a variety of areas, including: telecommunications, software programming, networking, computer aided design, industrial instrumentation, and process control.

Graduates completing this program are automatically eligible for membership in the Association of Engineering Technicians and Technologists of Newfoundland (AETT), as well as any similar association in Canada. In addition, graduates can apply to Lakehead University and if accepted, receive full credit toward an engineering degree.

### 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 color perception.

### OBJECTIVES

The student will be able to:

1. Develop a high level of skill in the application of electronic principles.
2. Analyze and design electronic systems using computer aided design software or traditional workbench.
3. Configure and design computer circuits and systems.
4. Assemble, maintain and troubleshoot analog and digital communication systems.
5. Install, configure and maintain industrial instrumentation and process central equipment.
6. Assemble, maintain and troubleshoot computer networks.
7. Work and communicate with professionals, as well as supervise the work of skilled technicians.
8. Think and work independently.

### CURRICULUM

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

Specific education in the theory and application of analog and digital electronics with a specialized emphasis on Telecommunications, Computer Programming and Networking, Microprocessor Interfacing, and Industrial Process Control.

Practical education employing labs and shops focused on installation, configuration, operation and maintenance training associated with electronic instrumentation, digital communications, wireless systems, programmable logic controllers, process control loops, transmitter calibration, microcontrollers, computer networks, and cabling systems.

### EMPLOYMENT OPPORTUNITIES

The Electronics Engineering Technology program is designed to produce a well rounded graduate who will be capable of working in a variety of electronic related fields. Past graduates have obtained employment in the areas of telecommunications, pulp and paper, computer sales, service and support, provincial agencies, federal agencies, consulting firms, business equipment servicing, school boards, industrial sales, NAVCAN, R&D and power companies.

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

### DIPLOMA

- Three years
- September start
- Corner Brook Campus

### COURSES

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

Semester 3 (Technical Intercession I)		Cr	Le	La
AE1200	Electronic Devices	5	4	2
CI1310	Electrical/Electronic Fabrication Techniques	3	2	3
ET2100	Electrotechnology	3	2	2

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

Semester 4		Cr	Le	La
AE2300	Analog Electronics I	4	3	3
CE2700	Antennas & Microwaves	4	3	3
CT2300	Applied Programming	4	3	2
DP1100	Digital Electronics	4	3	2
DR2410	Electronic Computer Aided Design I	2	1	2
MA2100	Mathematics	5	5	0

Semester 5		Cr	Le	La
AE2301	Analog Electronics II	4	3	3
CE2250	Electronic Analog Communications	4	3	3
CI1100	Electronic Instrumentation	3	2	2
CM2300	Report Writing	2	2	0
DP2400	Digital/Microprocessors	4	3	2
DR2411	Electronics CADD II	2	1	2
MA2101	Mathematics	5	5	0

Semester 6 (Technical Intercession II)		Cr	Le	La
AE2210	Power Control Devices	3	2	3
AE2400	Problem Solving Electronic Troubleshooting	1	0	2
CM2200	Oral Communications	2	2	0
EC1700	Engineering Economics	2	2	0

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

Semester 7		Cr	Le	La
AE3100	Analog Integrated Circuits	4	3	3
AE3300	Industrial Electronics I	4	3	2
CE3600	Digital Communication I	4	3	3
DP3300	Microprocessor Interfacing	4	3	3
MP2400	Network Analysis	5	5	0
PR2650	Technological Thesis	P/F	1	0

Semester 8		Cr	Le	La
AE3301	Process Control	4	3	3
CE3610	Digital Communications II	4	3	2
CG3400	Engineering Management	3	3	0
CP1150	Visual Basic	4	3	2
CP2180	Microsoft Windows Management	3	2	2
CT3140	PC Configuration	3	3	1
PR2651	Technological Thesis	3	2	2

This program is currently under review and is subject to change.

