

## DIPLOMA

- Two years
- September start
- Burin Campus

### COURSES

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 1</b>				
CM1400	Technical Report Writing I	3	3	0
ET1100	Electrotechnology	4	3	2
MA1700	Mathematics*	4	3	2
PH1100	Physics	4	3	2
EG1110	Engineering Graphics	3	2	2
CH1120	Chemistry	4	3	2
SD1170	Technology Awareness I	0	1	0

\*Admission into the appropriate Mathematics course will be decided by the grade in high school math.

#### EITHER

Students who received at least 70% in level III Math 3200 or a pass in Math 3201 can be exempted from MA1700

#### OR

Students who received a combined average of 70% in 2204 and 3204, or a pass in both of 2205 and 3205 can be exempted from MA1700.

**Note: The student must apply for the exemption from MA1700 provided they meet the appropriate high school level Math and they receive an appropriate score on the math placement test.**

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 2</b>				
CF1100	Materials & Processes	3	3	1
CM1401	Technical Report Writing II	3	3	0
EG1430	Applied CAD	3	2	2
ET1101	Electrotechnology	4	3	2
MA1101	Mathematics	5	5	0
WD1100	Techn. & Process I	4	2	6
SD1171	Technology Awareness II	2	1	0

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 3 (Technical Intersession I)</b>				
MP2700	Electrical Power Sources	2	2	4
SP1300	Radiation Safety	1	2	1
WD1101	Welding Technology & Processes II	4	4	12

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 4</b>				
CF1101	Materials & Processes	3	3	1
CF2510	Strength of Materials	3	3	1
EG1300	Engineering Graphics	2	0	5
MA2100	Mathematics	5	5	0
SP2310	Quality Control & Inspection I	3	2	3
WD2100	Welding GMAW/FCAW	4	2	6

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 5</b>				
EC1710	Engineering Economics & Supervision	3	3	0
CF2511	Strength of Materials	3	3	1
SP2311	Quality Control and Inspection II	3	2	3
WD2101	Welding Technology & Processes IV	4	2	6
WD2200	Welding Codes	2	2	0
WD2300	Welding Failure Analysis	3	2	2
WD2400	Welding Metallurgy	4	4	0

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 6 (Work Exposure - 1 week) (optional)</b>				
OJ1020	Work Exposure			

CODE	TITLE	Hrs/wk		
		Cr	Le	La
<b>Semester 7 (Technical Intersession II)</b>				
DR3300	Manufacturing Technology	2	2	6
WD3100	Cost Analysis	4	4	16
XD1350	Environment & Ethics	2	4	0

## ENGINEERING TECHNOLOGY

# Welding Engineering Technician

This program is designed to develop the skills and knowledge required to ensure that welding processes, procedures, and weldments conform to engineering specifications and related codes.

The program is supported by modern shop and laboratory facilities for instruction in Welding, Materials, Science, Nondestructive Testing and Computer Aided Design/Computer Aided Manufacturing (CAD/CAM).

### EMPLOYMENT OPPORTUNITIES

The successful graduate of this program will be employed in the welding industry to assume the following responsibilities:

- implement and enforce quality control
- interpret and apply specifications and codes
- determine inspection procedures
- carry out welding inspection and nondestructive testing procedures as defined by specifications and codes
- interpret and evaluate test results
- verify procedures and welder or welding operator qualifications
- verify the application of approved procedures
- prepare and maintain inspection records and reports
- set up equipment, lay out work to specifications and weld to prescribed standards.

### ENTRANCE REQUIREMENTS

Comprehensive Arts and Science Certificate (College Transition program) with the following courses:

1. Math Fundamentals I and II
2. Two Science courses chosen from one of the following three combinations:
  - a. Introduction Biology I and II
  - b. Introductory Chemistry I and II
  - c. Introductory Physics I and II

**Note:** It is strongly recommended that all CAS students who intend to enroll in Engineering Technology programs complete both Introductory Chemistry courses and both Introductory Physics courses

#### OR

High School Graduation Certificate with a 60% average in the following:

1. Language (1 credit) (minimum 60%) chosen from: 3101, 3102, 3103, 3112, 3172, 3192, 4121

#### OR

English (2 credits) (minimum 60%) chosen from: 3201, 3211, 3202, 3212, 3231, 3232, 3281, 3282, 3291, 3292

2. Mathematics (2 credits) chosen from Advanced: 3201, 3211, 3221, 3231, 3271, 3281, 3291, 4225 (50%) minimum

Academic: 3203, 3200, 3210, 3230, 3270, 3280, 3290, (60%) minimum

#### OR

Mathematics (4 credits) chosen from:  
Advanced: 2205, 3205 (50% minimum in each course)  
Academic: 2204 (50% minimum), 3204 (60% minimum)

3. Science (4 credits) two of which must be selected from:  
Biology: 3201, 3211, 3231, 3271, 3281, 3291, 4221  
Physics: 3204, 3214, 3274, 3284, 3294, 4224  
Chemistry: 3202, 3212, 3230, 3272, 3282, 3292, 4222  
Geology: 3203, 3213, 3223, 3273, 3283, 3293  
Earth Systems: 3213, 3209

**Note:** The remaining two Science credits to be chosen from the highest Science mark in level 1, 2 or 3.

**Note:** Although all of the above High School Science courses are acceptable for entrance to Engineering

Technology programs, the Physics and/or Chemistry streams are strongly recommended.

#### OR

Persons 19 years of age or older, who have been out of school for at least one year and do not meet the educational prerequisite for this program, may be considered on an individual basis under the Mature Student Clause.

#### OR

Grade XI Public Examination pass with a 60% average including a 60% pass in language, 60% in Matriculation Mathematics or 50% in Honours Mathematics, and one Science course,

#### OR

Adult Basic Education (Level III) Graduation indicating completion of the academic stream including the following courses:

1. Communications IC3211, IC3112 plus ONE of IC3116 or IC3215 or IC3321 or IC3222
2. Mathematics from one of the following sections:
  - a. Mathematics IM3212, IM3213 and IM3216
  - b. IM3219
3. Science from one of the following sections:
  - a. Biology IB3113, IB3214, IB3115, IB3316
  - b. Chemistry IH3215, IH3116, IH3117, IH3118
  - c. Physics IP3111, IP3112, IP3215, IP3216
  - d. Earth Science IS3212, IS3213, IS3214

#### OR

Adult Basic Education Graduation (Level III) with Degree and Technical Profile including the following courses:

1. English 3101A, 3101B, 3101C or 3102A, 3102B, 3102C
2. Mathematics 1104A, 1104B, 1104C, 2104A, 2104B, 2104C, 3104A, 3104B, 3104C
3. Science from one of the following sections:
  - a. Biology 1101, 2101A, 2101B, 2101C, 3101A, 3101B, 3101C
  - b. Chemistry 1102, 2102A, 2102B, 2102C, 3102A, 3102B, 3102C
  - c. Physics 1104, 2104A, 2104B, 2104C, 3104A, 3104B, 3104C

Applicants with Adult Basic Education (Level III) Graduation with a different Profile may be eligible for admission to the program provided the appropriate selection of courses including those outlined above have been completed.