

## CERTIFICATE

- One year
- Start date varies
- Burin Campus

## COURSES

CODE	TITLE	Hrs
<b>Block 1</b>	<b>Entry Level</b>	
TS1510	Occupational Health and Safety	6
TS1520	WHMIS	6
TS1530	Standard First Aid	14
WD1165	Hand, Measuring and Layout Tools	15
WD1170	Hand and Power Cutting Tools	15
WD1175	Drilling and Threading Tools	15
WD1180	Grinding and Finishing	12
WD1185	Bending and Rolling	4
WD1270	Shielded Metal Arc Welding (SMAW) Butt Joint – Flat and Horizontal Positions (F-4 Class Electrodes) – Mild Steel	30
WD1340	Gas Metal Arc Welding (GMAW) Fillet Weld – Flat and Horizontal Positions – Mild Steel	15
WD1600	Oxy-Fuel Cutting, Welding, Heating and Gouging	45
WD1610	SMAW (Sheet Metal Arc Welding) I – Set-up, Strike and Maintain an Arc	30
WD1620	SMAW II – Fillet Weld all Positions	60
WD1630	GMAW (Gas Metal Arc Welding) I – Set-up and Maintain an Arc	15
WD1660	Blueprint Reading I (Basic)	30
WD1670	Blueprint Reading II (Welding Symbols)	30
WD1680	Metallurgy, Expansion and Contraction Control	30
WD1700	Stationary Powered Shearing	6
WD1710	Iron Worker Operation	12
WD1720	Jigs and Fixture Fabrication	15
WD1730	Fabrication Fundamentals	15
WD2430	Material Handling, Rigging and Scaffolding	35
WD2440	Blueprint Reading IV (Shop Drawings)	15
SF1400	Press Brake Operation	45
SF1410	Roll Forming Equipment and Operation	45
SF1420	Basic Layout Operations	20
SF1430	Basic Parallel Line Development	30
SF1440	Basic Radial Layout	30
SF1450	Basic Triangulation Layout	30
SF1460	Basic Plate Development	120
SF1470	Basic Assembly and Fitting	40
MA1060	Basic Math	60
CM2150	Workplace Communications	45
MR1220	Customer Service	30
SP2330	Quality Assurance/Quality Control	30
MC1050	Introduction to Computers	30
SD1700	Workplace Skills	30
SD1710	Job Search Techniques	15
SD1720	Entrepreneurial Awareness	15
<b>Block 2</b>	<b>Advanced Level</b>	<b>Hrs</b>
WD1640	GTAW (Gas Tungsten Arc Welding) I Set-up	15
WD1650	Plasma Arc Cutting and Gouging	10
WD1690	Quality Control	30
WD1740	FCAW (Flux Core Arc Welding) I – Set-up and Deposit a Weld	15
WD1750	FCAW II – Weld Plate (Flat and Horizontal)	15
WD1760	Air-Arc Cutting and Gouging	10
WD1770	Submerged Arc Welding Setup	4
WD2410	Stud and Spot Resistance Welding	4
WD2420	Blueprint Reading III (Advanced/CAD)	15
SF1490	Structural Components and Detailing Practices	25
SF1500	Pressure Vessel and Pipe Drawing Interpretation	10
SF1510	Advanced Parallel Line Development	40
SF1520	Oxy-Fuel Optical Tracer	6
SF1530	CNC Cutting Machine	6
SF1540	Finishing and Shipping	6
SF1550	On-Site Installation	6
SF1560	Job Planning	6
<b>Block 3</b>	<b>Advanced Level</b>	<b>Hrs</b>
SF1700	Truss and Girder Fabrication	20
SF1710	Advanced Radial Layout	40
SF1720	Advanced Triangulation Layout	30
SF1730	Advanced Assembly and Fitting	60
SF1740	Advanced Plate Development	80

## INDUSTRIAL TRADES

# Metal Fabricator (Fitter)

This program is designed to prepare you for employment opportunities in the field of Structural Fitting. Metal fabricators make and repair parts used in the construction of buildings, bridges, tanks, towers, boilers, pressure vessels and other structures and products. Some of your duties include: lay out, cut and fabricate structural steel, study engineering drawings and blueprints to determine the materials required and plan the sequence of tasks to cut the metal most efficiently, construct patterns and templates as guides for layouts, rig, and hoist and move materials to storage areas or within the worksite assemble and fit metal sections and plates to form complete units or subunits using tack welding, bolting, riveting or other methods, install fabricated components in the final product. You can expect to work fulltime, sometimes shift work and usually indoors in fabricating shops or factories.

### OUTCOMES

1. Demonstrate safe work practices and personal protection.
2. Utilize various shop drawings, sketches and fabrication drawings.
3. Fabricate detail materials.
4. Perform welding activities.
5. Prepare final products for finishes.
6. Install on-site.

### ENTRANCE REQUIREMENTS

Eligibility for admission requires the applicant to meet one of the following academic criteria:

#### 1. High School

High School Graduation

#### 2. Comprehensive Arts and Science (CAS) Transition

Comprehensive Arts and Science (Transition) Certificate

#### 3. Adult Basic Education

Adult Basic Education (Level III) Graduation with General College Profile (or Business Related College Profile or Degree and Technical Profile). It is strongly recommended that courses include the following:

- i. Mathematics MA3107A, MA3107B, MA3107C
- ii. Science 3101, 3102, 3103

#### 4. Mature Student Status

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

### EMPLOYMENT OPPORTUNITIES

You will find employment in a variety of occupational settings: welding or ironworking companies, manufacturers of structural steel boilers, heavy machinery and transportation equipment, construction related industries, railways mining, oil and gas, aircraft contractors, ship building contractors and welding shops.

