

## CERTIFICATE

- One year
- Start date varies
- Baie Verte, Bay St. George, Burin, Corner Brook, Happy Valley-Goose Bay, Labrador West, Placentia, and Prince Philip Drive Campuses

## 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
WD1601	Oxy-Fuel Cutting, Heating and Gouging	15
WD1610	SMAW (Shielded 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 Arc	15
WD1640	GTAW (Gas Tungsten Arc Welding) I Set-up	15
WD1650	Plasma Arc Cutting and Gouging	10
WD1660	Blueprint Reading I (Basic)	30
WD1670	Blueprint Reading II (Welding Symbols)	30
WD1681	Metallurgy, Expansion and Contraction Control	30
WD1690	Quality Control	30
WD1700	Stationary Powered Shearing	6
WD1711	Iron Worker Operation	6
WD1720	Jigs and Fixture Fabrication	15
WD1730	Fabrication Fundamentals	15
WD1740	FCAW (Flux Core Arc Welding) I - Set-up and Deposit a Weld	15
WD1801	SMAW (Shielded Metal Arc Welding) III - Groove Weld 1G, 2G, 1GF, 2GF, 3GF & 4GF	120
WD1810	SMAW (Shielded Metal Arc Welding) IV - Fillet & Groove Weld Medium & High Carbon Steel	4
WD1820	GMAW II - Fillet Weld all Positions, Mild Steel	15
WD1831	GMAW (Gas Metal Arc Welding) III - Groove Weld Welds 1G, 2G & 3G Down, Mild Steel	20
WD1840	GTAW (Gas Tungsten Arc Welding) II - Fillet Weld all Positions, Mild Steel	30
WD1850	GTAW (Gas Tungsten Arc Welding) III - Groove Weld all Positions, Mild Steel	30
WD1860	GTAW IV - Fillet and Groove Weld, Medium And High Carbon Steel	4
WD1870	Build Up of Metal Parts	15
WD1880	Fusion, Brazing and Braze Welding (Oxy-Fuel)	15
WD1891	FCAW II - Fillet and Groove Weld Plate 1G, 2G, 1GF & 2GF	45
WD1900	Air Carbon Arc Cutting and Gouging	15
WD1910	Layout and Template Development Fundamentals	40
MA1060	Basic Math	60
OT1150	Workplace Exposure	80
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>
WD2410	Stud Welding and Resistance Spot Welding	4
WD2421	Blueprint Reading III (Advanced/CAD)	30
WD2431	Material Handling, Rigging and Scaffolding	20
WD2500	SMAW VI - Alloy Steels	4
WD2511	GMAW (Gas Metal Arc Welding) IV - Fillet & Groove Weld, Medium & High Carbon Steel	4
WD2520	GMAW (Gas Metal Arc Welding) V - Pipe & Tubing, all Positions Ferrous Metals	20

## INDUSTRIAL TRADES

# Welder

This is a program designed to prepare persons for employment in the labour force as an apprenticed Welder.

The Provincial Apprenticeship and Certification Board through legislative authority is responsible for the registration of apprentices and trade qualifiers into the designated occupations.

The registration of an apprentice will take place when an individual is employed in a field of work directly relating to a designated occupation, and has a Memorandum of Understanding (MOU) signed between the Division of Institutional and Industrial Education, an employer and the apprentice.

After successful completion of this program, and the required work experience, the apprentices qualify to return to complete advanced level training in preparation for writing the Journeyman's Examination.

### OBJECTIVES

1. To develop an awareness of and concern for good safety practices in the work place.
2. To provide a knowledge of the capabilities of oxygen, acetylene and arc welding equipment.
3. To understand the effects of these processes on materials.
4. To develop skill in applying weld material to obtain good welds.
5. To provide related academic skills and knowledge in Mathematics, Communication Skills and Science.

### 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 (College Transition)

Comprehensive Arts and Science Certificate (College Transition Program)

#### 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

Graduates may obtain employment as an apprenticed welder in machine shops, fabrication plants, garages, production plants, shipyards, oil rigs, provincial, federal and municipal governments. Additional experience and training leads to employment opportunities such as foreperson, supervisor, inspector, and engineering assistant.



WD2530	GMAW VI - Aluminum and Stainless Steel	20
WD2560	SAW (Submerged Arc Welding) Weld Plate	6
WD2570	Electric Arc Cutting (SMAW)	6
WD2140	SMAW V - Groove Weld 3G & 4G	25
WD2280	FCAW III - Fillet & Groove Weld Plate 3G, 4G, 3GF & 4GF	30

#### Block 3 Advanced Level

		Hrs
WD2541	GTAW VI - Alloy and Non-Ferrous Metals	35
WD2551	FCAW IV - Pipe and Tubing all Positions	35
WD2440	Blueprint Reading IV - (Shop Drawings)	15
WD2580	SMAW V - Pipe all Positions	135
WD2591	GTAW (Gas Tungsten Arc Welding) V - Pipe and Tubing, Mild Steel, all Positions	64

#### Block 4 Advanced Level

		Hrs
WD2600	GTAW VI - Pipe Mild Steel	75
WD2581	SMAW VI - Pipe all Positions	135