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## Trades and Applied Technology Programs

### Welding

**Location Offered:**

Cowichan, Nanaimo, Powell River

**Credential:**

Certificate

**Options:**

Apprenticeship

**Program Length:**

7 Months

### The Program

- 7-Month Welder Foundation (21 credits)
- 3-Month Welder Fitter (9 credits)
- Weld Level 1, 2, 3 Apprenticeship and Specialty Metals Endorsement
- Weld Level B
- Accredited Weld Test Facility for C.S.A (CWB) or A.S.M.E.

The Welder Foundation program is taught in a modular format, with practical and related knowledge modules. Students in the Foundation program, upon successful completion of the Level 1 and 2 exams, will receive a certificate of completion in the Foundation program. Once employed and registered in the Welder Apprenticeship program, the student will receive credit for Level 1 and 2 technical training and 300 work based training hours. Students are then eligible to register for Level 3 technical training where they can achieve Red Seal certification.

Classes are limited to 18 students. Graduates of the welding program have found employment in shipyards, fabrication shops, and construction industries. Welder Foundation graduates can continue onto the 12 week Welder Fitter program and receive a Welder Fitter Certificate.

### Program Outline

<b>Welder Foundation (28 weeks)</b>	<b>Credits</b>
WELD 102T - (Occupational Skills - Theory and Practical)	2.5
WELD 104T - (Oxy-Fuel Cutting and Gauging Processes (OFC) - Theory and Practical)	1.5
WELD 106T - (Fusion and Braze Welding Using Oxy-Fuel Process (OFW) - Theory and Practical)	1.0
WELD 108T - (Shielded Metal Arc Welding - Theory and Practical)	6.0
WELD 110T - (Electric Arc Cutting, Gouging and Related Processes (AAC) (PAC) (SMAC) - Theory and Practical)	1.0
WELD 112T - (Semi-Automatic Welding and Submerged Arc Welding (SAW))	4.5
WELD 114T - (Layout and Fabricate Components)	1.5
WELD 116T - (Welding Drawings)	1.5
WELD 120T - (Basic Metallurgy)	1.0
WELD 121T - (Gas Tungsten Arc)	0.5
<b>Total Credits</b>	<b>21</b>

<b>Welder Fitter (12 weeks)</b>	<b>Credits</b>
WELD 124T - (Safe Work Practices)	0.36
WELD 125T - (Trade Math)	0.36
WELD 126T - (Blueprints)	0.36
WELD 127T - (Materials Handling)	0.72
WELD 128T - (Metal Working Equipment)	0.36
WELD 129T - (Layout Projects - Theory)	1.8
WELD 130T - (Welder Fitting Skills - Practical)	5.04
<b>Total Credits 9</b>	

### ***Apprenticeship Training***

<b>Apprenticeship - Level 1</b>
WELD 102T - (Occupational Skills - Theory and Practical)
WELD 104T - (Oxy-Fuel Cutting and Gauging Processes (OFC) - Theory and Practical)
WELD 106T - (Fusion and Braze Welding Using Oxy-Fuel Process (OFW) - Theory and Practical)
WELD 108T - (Shielded Metal Arc Welding - Theory and Practical)
WELD 110T - (Electric Arc Cutting, Gouging and Related Processes (AAC) (PAC) (SMAC) - Theory and Practical)
WELD 112T - (Semi-Automatic Welding and Submerged Arc Welding (SAW))

<b>Apprenticeship - Level 2</b>
WELD 102T - (Occupational Skills - Theory and Practical)
WELD 108T - (Shielded Metal Arc Welding - Theory and Practical)
WELD 112T - (Semi-Automatic Welding and Submerged Arc Welding (SAW))
WELD 114T - (Layout and Fabricate Components)
WELD 116T - (Welding Drawings)
WELD 120T - (Basic Metallurgy)

<b>Apprenticeship - Level 3</b>
WELD 152T - (Shielded Metal Arc Welding (SMAW) - Theory and Practical)
WELD 154T - (Semi Automatic Welding)
WELD 156T - (Specialized Processes)
WELD 158T - (Gas Tungsten Arc Welding (GTAW) - Theory and Practical)
WELD 166T - (Welding Quality Control and Inspection)
WELD 168T - (Standards, Specifications and Welder Qualification)
WELD 170T - (Layout and Fabricate Components - Theory and Practical)
WELD 172T - (Basic Metallurgy Theory)
WELD 174T - (Welding Drawings)

### ***Specialty Metals Endorsement***

This training is available to Welders who have completed Level 3 and have Red Seal certification. Students will complete 5 weeks of technical training towards the Specialty Metals Endorsement and spend the remainder of the year working as a Welder.

<b>Apprenticeship - Specialty Metals Endorsement</b>
WELD 190T - (Shielded Metal Arc Welding - Theory and Practical)
WELD 192T - (Gas Tungsten Arc Welding - Theory and Practical)
WELD 196T - (Basic Metallurgy)
WELD 198T - (Layout and Fabricate Components)

## **Level B**

This training is available to holders of Level C.

<b>Level B</b>
WELD 152T - (Shielded Metal Arc Welding - Theory)
WELD 153T - (Shielded Metal Arc Welding - Practical)
WELD 154T - (Gas Metal Arc Welding - Theory)
WELD 155T - (Gas Metal Arc Welding - Practical)
WELD 156T - (Flux Cored Arc Welding - Theory)
WELD 157T - (Flux Cored Arc Welding - Practical)
WELD 158T - (Gas Tungsten Arc Welding - Theory)
WELD 159T - (Gas Tungsten Arc Welding - Practical)
WELD 166T - (Welding Quality Control & Inspection Procedures)
WELD 168T - (Welding Codes, Standards & Specifications)
WELD 170T - (Blueprint Reading II)
WELD 172T - (Welding Metallurgy II)

*All program courses must be successfully completed before certificates will be issued.*

## **Admission Requirements**

- All students will be required to complete an assessment test.
- See Trades general admission requirements.

### **Note on Admission**

- Adequate vision, and free from respiratory ailments.
- Physically suited to the trade.
- Applicants who do not possess the minimum educational requirements may have their work experience assessed in lieu of educational requirements.

## **Work Placement Opportunities**

### **Apprenticeship Training**

#### **Level 1 (8 weeks)**

Apprentices who have already obtained an employer sponsor band and have acquired industry welding experience can register for Level 1 technical training. Upon successful completion of the Level 1 program and the Level 1 exam, graduates will then be eligible to continue on with the Level 2 technical training.

#### **Level 2 (8 weeks)**

Apprentices registering for this program will have already successfully completed Level 1 apprenticeship technical training. Upon successful completion of the Level 2 Program and the Level 2 exam, graduates will then be eligible to continue on with Level 3 technical training.

#### **Level 3 (8 weeks)**

Apprentices registering for this program will have already successfully completed

Level 2 apprenticeship technical training and have a recommended 300 work based training hours. Upon successful completion of the Level 3 program, graduates will then be eligible to write the Welding Red Seal exam.

**Specialty Metals Endorsement (5 weeks)**

Welders registering for this program will have already successfully completed Level 3 apprenticeship technical training and have Red Seal Certification. Upon successful completion of the Specialty Metals Endorsement program and the Specialty Metals Endorsement exam, students will receive certification.

## **Start Date and Application Deadline**

**Welder Foundation:** Applications are accepted on an ongoing basis.

**Welder Fitter:** Applications are accepted on an ongoing basis.

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