

First Period Welding Apprenticeship Program



St. Oscar Romero Catholic High School

Program Duration: 3 Semesters (February 2026 - June 2027)

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Course Overview

This program is designed for high school students interested in pursuing a career in the welding trade. Through a combination of classroom learning and hands-on shop experience, students will develop the knowledge, skills, and attitudes required to meet Alberta's First Period Welder Apprenticeship standards. The curriculum emphasizes safety, technical accuracy, and professionalism while preparing students for workplace expectations and further apprenticeship training. All courses follow the Alberta and Industry Training (AIT) standards and are credit-eligible toward First Period technical training. After successful completion of the course, students will have the choice to complete the first year apprenticeship **EXAM**.

Program Outcomes

- Demonstrate foundational welding skills and safety protocols
- Interpret welding symbols and drawings
- Apply welding mathematics to trade-specific tasks
- Perform welding operations on various metals and in multiple positions
- Exhibit professionalism and employability skills
- Obtain relevant safety certifications

Prerequisites

- Fabrication 10
- WDA3900: Apprenticeship Safety (required before completing any other module)

Term-by-Term Outline

Semester	Courses
Semester 1	WDA3900: Apprenticeship Safety WDA3401: Tools and Equipment WDA3407: Symbols and Drawings WDA3411: Wire-Feed Welding WDA3415: GMAW on Mild Steel
Semester 2	WDA3403: Oxyfuel and Plasma Arc WDA3408: Weld Faults WDA3420: FCAW and MCAW WDA3413: Gases and Maintenance WDA3423: Mild Steel Welds
Semester 3	WDA3406: Electricity and Metals WDA3427: Mild Steel Pipe Welds WDA3432: Welding Math 1 WDA3437: Welding Math 2 WDA3429: Aluminum and SAW

Instructional Methods

- In-person lectures and shop demonstrations
- Safety drills and skills simulations
- Individual and group welding projects
- Industry-standard ILM (Instructional Learning Materials)
- Materials and assignments will be posted in Google Classroom

Assessment Methods

Assessments throughout the course will follow a format similar to that used by AIT, helping students prepare for both their theory and practical exams. At the end of each term, students will complete a multiple-choice exam (70–100 questions) covering all course material from that term, along with required weld tests.

In addition to the term-end assessments, students can expect the following types of evaluations throughout the course:

- Written quizzes and unit exams
- Unit projects
- Practical skill evaluations
- Safety logs and reflection journals

A wide range of assessment information is used in the development of a student's final grade. At St. Oscar Romero High School, individualized assessments provide specific information regarding student progress and overall performance in class. Student assessment may vary from student to student to adapt for differences in student needs, learning styles, preferences and paces. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.

Grading

- Theory: 40%
 - Semester Final Exam 10%
 - Projects/Assignments/Quiz20%
 - Unit Exam10%
- Practical Skills: 40%
 - Semester Final 10%
 - Application Assessments 30%
- Basic Competencies: 20%
 - Reflection Logs 10%
 - Peer Reviews 3%
 - Safety 7%

Supplies & Equipment

- Students will have access to all necessary Personal Protective Equipment (PPE) and shop materials provided by the school.
- Students must provide their own Canadian Standards Association (CSA) certified steel-toed boots for the practical portion of the AIT exam.

Student Expectations

This course is based on post-secondary level material and will be delivered with the expectations of a post-secondary environment. Students will be held to a higher standard in terms of responsibility, work ethic, and performance.

- Arrive on time and stay until class ends
- Keep personal devices off and put away
- Actively engage and participate in class discussions and projects
- Identify any accommodation needs with the instructor early in the term
- Access academic supports through school services as needed
- Submit assignments on time

Attendance Policy

- 100% attendance is expected; a minimum of 80% is required
- 100% attendance is required for all assessments
- Absences must be communicated in advance or as soon as possible
- Students are responsible for catching up on missed work and materials

AIT Final

- Theory Exam – 100 Questions
 - Time Allowed: 3 Hours
 - Pass Mark: 70%
 - Breakdown:
 1. Workplace Safety and Tools – 19 Points
 2. Welding Technology and Properties of Metals – 20 Points
 3. GMAW, FCAW, MCAW, and SAW – 49 Points
 4. Trade Math – 12 Points
- Practical Exam
 - Time Allowed: 3 Hours
 - Pass Mark: 70%
 - Breakdown:
 - 1: 3G - Vertical Groove Weld (GMAW)
 - 2: 3G – Vertical Butt Weld (GMAW)
 - 3: 2F - Horizontal Lap Weld (GMAW)
 - 4: 2G – Horizontal Butt Weld (GMAW)/(FCAW)
 - 5: 3F - Vertical Lap Weld (FCAW)

6: 2F - Horizontal Lap Weld (FCAW)
7: Cutting (OAC)

Instructor Requirements

Journeyman Certified Welder

Industry Partners:



Program Sponsors:

