



CROCUS PLAINS REGIONAL SECONDARY SCHOOL COURSE OUTLINE AND ASSESSMENT GUIDE

Course Name: WGA 40S Advanced Gas Metal Arc Welding Procedures

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Course Description:

This course concentrates on improving the student's ability to GMAW (MIG) weld with multiple GMAW processes and positions. Students taking advanced Gas Metal Arc Welding will be taught about the equipment and safety concerns in a welding shop, set up and welding of V-butt welds as well as Canadian Welding Bureau style testing, and all position fillet welds as per Manitoba Apprenticeship level 1 standards. Students will be practicing out of position welds, programming lessons on a CNC plasma table, and various shop projects.

Units of Study

Unit Title	Learning Outcomes	Assessment Plan	Proposed Time (Based on ~ 90 school days)
Written Work	Safety training and hand signals	<u>Formative Assessment</u> Assessment may include:	2 days
	Fractions and Decimals	Questions and quizzes to determine students' understanding. Smart response questions, and oral questioning. <u>Summative Assessment:</u> Final tests/ assignments for each unit.	3-4 days

Daily Progression Welds	Flat 10 ga multi joint	<u>Formative Assessment</u> may include:	4 days
	Horizontal 10 ga multi joint	Feedback on each type of weld, what the student may need to try in order to improve their weld.	4 days
	Vertical 10 ga multi joint	Allows the student to understand what makes a good weld and asking them to assess their own welding abilities.	5 days
	Downhand 10 ga multi joint	<u>Summative Assessment</u>	5 days
	Flat ¼" multi joint	Students will be allowed to submit their best overall welds to be marked.	5 days
	Horizontal ¼" multi joint		5 days
	Vertical ¼" multi joint		5 days
	Overhead 1/8" laps/tees		10 days
	Overhead ¼" laps/tees		5 days
	Flat V-butts		10 days
	Horizontal V-butts		10 days
	Vertical V-butts		7 days
	Aluminum double v-butts		4 days
	GMAW CWB		5 days
	FCAW CWB		5 days

Shop Maintenance Workplace Expectations	Adaptability and effort Follows direction and feedback Use of safety in the workplace Constructive Use of Shop Time Shop Maintenance	<u>Formative Assessment</u> Regular communications about shop expectations, and how to adapt to an employer's expectations. <u>Summative Assessment</u> Grading rubric will be used to assess skills	Evaluated monthly and is graded on day to day skills.
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Assessment Guidelines

There are various purposes for assessment:

- ☐ Assessment *for* learning (**formative assessment**): where assessment helps teachers gain insight into what students understand in order to plan and guide instruction, and provide helpful feedback to students.
- ☒ Assessment *of* learning (**summative assessment**): where assessment informs students, teachers and parents, as well as the broader educational community, of achievement at a certain point in time in order to celebrate success, plan interventions and support continued progress.

Academic Achievement

Grades will be calculated on summative assessment information only. The final calculation will be a fair reflection of a student's achievement of the learning outcomes.

Written Work 15% Practical Work 35%
 Projects 10% Final Assessment 30%
 Shop Maintenance/ Workplace expectations 10%

Learning Behaviours

Assessment and reporting of learning behaviors will be according to the Brandon School Division Learning Behaviors Rubric.