



CROCUS PLAINS REGIONAL SECONDARY SCHOOL COURSE OUTLINE AND ASSESSMENT GUIDE

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

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Course Description:

This course concentrates on improving the student's ability to arc weld with both 7018 and 6010 welding rods. Students taking advanced Shield 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. 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) |
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| Written Work | Safety training and hand signals | <u>Formative Assessment</u> Assessment may include: Questions and quizzes to determine students' understanding. Smart response questions, and oral questioning. | 2 days |
| | Fractions and Decimals | <u>Summative Assessment:</u> Final tests/ assignments for each unit. | 3-4 days |
| Daily Progression Welds | 6010 2 pass tee | <u>Formative Assessment</u> may include: | 2 days |
| | 7018 3 pass tee | Feedback on each type of weld, what the student may need to try in order to improve their weld. | 2 days |
| | Vert. corners, 6010 on outside, 7018 on inside | Allows the student to understand what makes a good weld and asking them to assess their own welding abilities. | 2 days |
| | | | 3 days |

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| | Skills practice project | <u>Summative Assessment</u> | 3 days |
| | Vert. double V-butt 6010 (2 required) | Students will be allowed to submit their best overall welds to be marked. | 3 days |
| | Flat V-butt 6010 root, 7018 fill and cap, bent (2 required) | | 10 days |
| | Horizontal V-butt 6010 root, 7018 fill and cap, bent (2 required) | | 10 days |
| | Vert. Up v-butt 6010 root, 7018 fill and cap, bent (2 required) | | 10 days |
| | CWB Torch Cut | | 3 days |
| | Plasma cam project | | 3 days |
| Project Work | CNC Hoodie Design | <u>Formative Assessment</u> may include: | 3 days |
| | Sundial | <p>Feedback on each type of weld, what the student may need to try in order to improve their work. Allows the student to understand what makes a good project and asking them to assess their own fabricating abilities.</p> <p><u>Summative Assessment</u></p> <p>Students will submit their finished project to be marked.</p> | 4 days |
| Employability Skills | Communication skills Respectful workplace | <u>Formative Assessment</u> | Evaluated monthly and is graded on day to day skills. |

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| | Adaptability and effort Follows direction and feedback Use of safety in the workplace | 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 | |
| Final testing | Flat V-butt Multi Joint style test | <u>Formative Assessment</u> Provide feedback about appearance and fit up. <u>Summative Assessment</u> Rubric to grade on fit up, weld quality, appearance, and | 3-4 days 3-4 days |

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 25 % Practical Work 35 %
 Projects 10 % Employability Skills 5 %
 Final Assessment 30 %

Learning Behaviours

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