

Minnesota Articulated College Credit (ACC) Agreement

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Articulated College Credit Agreement

Through Articulated College Credit (ACC), specific college curriculum learning outcomes and assessments are embedded in participating high school career and technical education (CTE) programs as specified in this agreement. Relevant knowledge, skills, and standards are taught by qualified CTE high school instructor(s) in one or more high school course. ACC is awarded if the student meets the college equivalency standards and later enrolls in the college(s) listed below requiring the course in a specific program.

Agreement Name **Arc Welding Processes Agreement**
Reviewed/Revised **2024-25**

These credits are valid for students in grades 10-12 for 5 years from the completion of this course.

College	College Course	College Programs	ACC
Anoka Technical College	WELD 1018 – Shielded Metal Arc Welding I	<ul style="list-style-type: none">• Welding (A.A.S. –66 cr.)• Welding Technology (Diploma – 34 cr.)• Basic Welding (Cert. – 17 cr.)	1 of 3 credits

Course Description

This course is intended for high school students enrolled in an articulated or concurrent enrollment program through an approved consortium. The course will cover entry-level specific training on the use of E6010 and E7018 electrode on fillet and groove weld on carbon steel. SMAW (Shielding Metal Arc Welding) safety and process variables are covered.

(Prerequisites: None)

Curriculum Learning Outcomes

100% of the curriculum learning outcomes will be covered in the high school course(s) by qualified CTE high school instructor(s).

Upon completion of the course(s), students will:

- Demonstrates proper use and inspection of personal protection equipment (PPE).
- Demonstrates proper safe operation practices in the work area.
- Demonstrates proper use and inspection of ventilation equipment.
- Demonstrates proper Hot Zone operation.
- Demonstrates proper work actions for working in confined spaces.
- Demonstrates proper use of precautionary labeling and MSDS information.

Additional Goals for Review:

- Passes AWS SENSE Practical Knowledge of Safety and Health of Welders and Shielded Metal Arc Welding (SMAW)
- Performs safety inspections of SMAW, GMAW equipment, and accessories.
- Makes minor external repairs to SMAW, GMAW equipment, and accessories.
- Operate and set up for SMAW, GMAW-S operations on carbon steel.
- Passes SMAW welder performance qualification test (2G and 3G, uphill, limited thickness test plates) on carbon steel.
- Passes GMAW-S welder performance qualification test on carbon steel.

Assessments

- Teacher observation using the checklist provided at www.ctecreditmn.com
As class time permits, students will be assessed on the listed practical lab exercises and must attain **80% or better** accuracy.

Recommended Industry-Recognized Certification or Comprehensive Assessment – High School & College

Certification/ Assessment	Vendor	Other Information
Practical Knowledge of Safety & Health of Welders	AWS SENSE	www.aws.org
Shielded Metal Arc Welding (SMAW) 2G & 3G Uphill	AWS SENSE	www.aws.org
Gas Metal Arc Welding (GMAW-S)	AWS SENSE	www.aws.org