INDUSTRIAL WELDING, CERTIFICATE OF PROFICIENCY

This program provides basic training for students who want to acquire the fundamental skills of Stick, MIG, TIG, and OxyFuel welding and introduces additional industry technologies: programming of welding robots, fabrication, nondestructive testing techniques, metallurgy, and workplace safety. Students have the potential to earn three nationally recognized certifications. At the conclusion of the MIG, TIG, and Stick welding classes, students submit a test piece (between 1F and 4G) for American Welding Society (AWS) certification evaluation.

Program contact: Learn more

This certificate will be automatically awarded when the certificate requirements are completed. If you do not want to receive the certificate, please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more here about how certificate credits apply to the related degree.

Program Admission Requirements

- High School Diploma/GED
- MATH-0910 Basic Arithmetic and Pre-Algebra or qualified Math Placement.

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

a. Use effective interpersonal, communication, and professional skills to work with welding, production, engineering, and quality control teams.
b. Comply with industry safety guidelines.
c. Apply TIG, MIG, and Stick processes to join metal.
d. Apply oxygen and fuel cutting skills.
e. Add and subtract decimals and fractions and convert decimals to fractions.
f. Train operators, troubleshoot equipment, analyze root causes and identify corrective actions of weld issues.
g. Work with production and engineering teams to develop equipment and processes for product development, production needs, and customer expectations.
h. Use practical knowledge/experience of fabricating, blue print reading, and welding skills to complete most welding projects.

Suggested Semester Sequence

First Semester		Credit Hours
ISET-1101	Welding Blue Print Reading (First 8 week session)	3
ISET-2120	Shielded Metal Arc Welding (STICK) (First 8 week session)	4
ISET-1110	Oxyfuel Processes/Plasma Processes (First 8 week session)	4
ISET-2100	Gas Metal Arc Welding (MIG) (Second 8 week session)	4
ISET-2110	Gas Tungsten Arc Welding (TIG) (Second 8 week Session)	4
	Credit Hours	**19**
Second Semester		
HLTH-1230	Standard First Aid and Personal Safety (First 8 week session)	1
ISET-2170	Flux-Cored Arc Welding (FCAW) (First 8 week session)	4
ISET-2140	Non-Destructive Testing (First 8 week session)	3
ISET-2160	Structural Fabrication (Second 8 week session)	4
ISET-2151	Robotic Welding (2nd 8 Weeks)	4
	Credit Hours	**16**
	Total Credit Hours	**35**

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.