STEELWORKER FOR THE FUTURE- MECHANICAL TECHNOLOGY, CERTIFICATE OF PROFICIENCY

The Steelworkers for the Future program — developed in partnership with Cleveland Cliffs, the world's leading steel and mining company — targets high-tech, well-paying jobs in electrical and mechanical technology. Students enrolling in the Certificate of Proficiency in Steelworker for the Future - Mechanical Technology will take Mechanical related courses at Tri-C that combines classroom learning and hands-on learning environments. Program participants are eligible for paid internships at Cleveland Cliffs. Upon completion, students will have the knowledge and skills to enter careers in the installation, manufacturing, testing, technical and maintenance typically associated with mechanical components and systems. Eligible participants may be hired at Cleveland Cliffs based on hiring needs and requirements at the time of graduation.

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 about how certificate credits apply to the related degree.

Related Degrees and Certificates

- Industrial Maintenance Technology, Associate of Applied Science
- Industrial Maintenance Technician, Certificate of Proficiency

Program Admissions Requirements

- High School Diploma/GED
- MATH-0915 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:

1. Install, maintain, and repair various mechanical industrial systems, such as hydraulic, pneumatic, piping and tubing systems.
2. Utilize machining, Shielded Metal Arc Welding (STICK) welding, and Oxyfuel/plasma processing skills when installing, maintaining, and repairing various mechanical industrial systems.
3. Ability to use computational methods, skills, and modern technical tools in engineering practice.
4. Develop practical skills in assembly, installation, and maintenance of mechanical drives.
5. Interpret mechanical, and electrical blueprints as needed when installing, maintaining, and repairing industrial equipment.
6. Understand how a reliability maintenance program and predictive maintenance technologies can improve uptime, increase safety, and improve overall equipment effectiveness.

Suggested Semester Sequence

First Semester		**Credit Hours**
ISET-1101	Welding Blue Print Reading	3
ISET-1110	Oxyfuel Processes/Plasma Processes	4
ISET-1301	Mechanical/Electrical Print Reading	3
ISET-1340	Industrial Piping and Tubing	2
ISET-1410	Applied Electricity I	3
Select One of The Following		2 to 3
ISET-1000	Numerical Applications in Electrical and Mechanical Maintenance	
MATH-1190	Algebraic and Quantitative Reasoning (or higher approved Ohio Transfer 36 Mathematics course)	
	Credit Hours	**17-18**
Second Semester		
MET-1240	Machine Tools and Manufacturing Processes	3
ISET-1310	Mechanical Power Transmission	2
ISET-1320	Fundamentals of Fluid Power	2
ISET-2120	Shielded Metal Arc Welding (STICK)	4
ISET-2990	Reliability Centered Maintenance	3
	Credit Hours	**14**
	Total Credit Hours	**31-32**

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.