

2024-25 ACADEMIC PROGRAMS

WELDING AND FABRICATION PRINCIPLES (CTWLDS)

This certificate introduces students to safe welding and cutting practices and principles including:

- proper technique and position,
- weld quality requirements,
- destructive and non-destructive testing and examination methods,
- print reading and interpretation of welding symbols, and
- basic metal fabrication.

Students will use the foundation and working knowledge to weld in all processes, perform repair techniques using thermal cutting and gouging, apply the requirements to executive quality welds and apply CNC programming language that can be used to produce parts that can be assembled and welded. This certificate serves as a fundamental pathway into the Welding and Fabrication Advanced Applications certificate and Welding Technology degree. Students who successfully complete this certificate will have learned the skills sought by the workforce as an entry-level welder and fabricator.

Come see our AWS certified staff and learn in our newly renovated lab equipped with state-of-the-art equipment for welding and fabrication; weld inspection and testing; and automated welding and cutting!

This is a **high demand** and **high skill** program as defined by the [Michigan Community College Network](#).

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Description

This certificate introduces students to safe welding and cutting practices and principles including, proper technique and position, weld quality requirements, destructive and non-destructive testing and examination methods, print reading and interpretation of welding symbols as well as basic metal fabrication. Students will use the foundation and working knowledge to weld in all processes, perform repair techniques using thermal cutting and gouging, apply the requirements to executive quality welds and apply CNC programming language that can be used to produce parts that can be assembled and welded. This certificate serves as a fundamental pathway into the Welding and Fabrication Advanced Applications certificate and Welding Technology degree. Students who successfully complete this certificate will have learned the skills sought by the workforce as an entry-level welder and fabricator.

Articulation

Eastern Michigan University, several BS degrees

Copies can be obtained from the Counseling Office, a program advisor or from the Curriculum and Assessment Office Web site: <https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php>.

Course Requirements

Major/Area Requirements

Class	Title	Minimum Credits
NCT 120	Introduction to 2D CAD CAM Programming and Applications	2
WAF 106	Welding Print Reading	3
WAF 109	Welding Safety and OSHA Regulations	2
WAF 125	Introduction to Welding Processes I	2
WAF 126	Introduction to Welding Processes II	2
WAF 130	Shielded Metal Arc Welding (SMAW)	4
WAF 131	Thermal Cutting, Gouging and Weld Repair	3
WAF 139	Basic Metal Fabrication	3
WAF 140	Inspection and Testing	3
Total		24

Total Credits Required: 24

Accurate as of 07/12/2024 Information is subject to change without notice.