

WELDING TECHNOLOGY (AAS)

Manufacturing and Construction

Program website (<https://www.harpercollege.edu/academics/manufacturing/welding/welding-technology-degree.php>)

Program Overview

This 60 credit-hour program prepares students for employment in the high demand welding and fabrication sector of the economy. Graduates may find employment as welders, fabricators and welder supervisors in the manufacturing and construction industries.

Program Requirements

All WLD courses are offered in an 8-week scheduling format.

First Semester		Hours
ENG 101	Composition I	3
MFT 134	Print Reading for Industry	3
MTH 100	Applied Math for Technical Careers ¹	3
WLD 110	Welding I	3
WLD 210	Welding II	3
Hours		15
Second Semester		Hours
AAS General Education elective(s) (https://catalog.harpercollege.edu/catalog/programs/aas-general-education-electives/) ⁺		6
WLD 211	Welding III	4
WLD 212	Welding IV	4
WLD 225	Advanced Blueprint Reading	2
Hours		16
Third Semester		Hours
Technical Elective(s) (p. 1)		6
WLD 240	Cutting Processes	3
WLD 249	Applied Welding Theory	3
WLD 253	Welding Power Sources	3
Hours		15
Fourth Semester		Hours
AAS General Education elective(s) (https://catalog.harpercollege.edu/catalog/programs/aas-general-education-electives/) ⁺		3
Technical Elective(s) (p. 1)		3
WLD 245	Welding Fabrication I	4
WLD 250	Welding Fabrication II	4
Hours		14
Total Hours		60

¹ Students may take MTH 100, MTH 101, MTH 103 or higher.

⁺ At least one of the AAS General Education electives must meet the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (<https://catalog.harpercollege.edu/catalog/programs/aas-general-education-electives/>).

Technical Electives

Code	Title	Hours
MFT 105	Machining Processes I	3
MFT 120	Machining Processes II	3
WLD 246	Pre-Pipe Welding	4
WLD 248	Basic Pipe Welding	4
WLD 260	Arc Welder Qualification	4
WLD 261	Mig Welder Qualification	4
WLD 285	Topics in Welding Technology	1-6

Program Learning Outcomes

Upon completion of the AAS in Welding Technology, students should:

- demonstrate knowledge of welding and material standards.
- be able to work from blueprints and welder procedure specification sheets (WPS).
- demonstrate proficiency in all forms of arc welding in all positions.
- be able to pass guided bend tests for one (GMAW) and one (SMAW) WPS (become certified welder).
- identify type of material and best method of welding.
- operate cutting equipment in a safe and efficient manner while accomplishing meaningful work.
- produce quality fabricated metal products.
- understand visual inspection and quality control.
- understand selection, installation and maintenance of welding equipment.
- be able to troubleshoot common problems with welding equipment.