

# WELDING TECHNOLOGY (AAS)

**Catalog Effective Term:** Fall 2024

**Program Code:** APWLDF

**Credential:** Associate in Applied Science

*High Demand Occupation, High Wage Occupation*

The Welding Technology program offers specialized welding and fabrication instruction through theoretical, practical and technical learning objectives and strategies. The core curriculum specializes in welding and fabrication and delves into the expanses of welding technology as a whole. Students are first introduced to welding, cutting and fabrication safety; theory and fundamentals; and then transition to more advanced welding and fabrication processes and application, such as weld quality, inspection testing and repair techniques and automated welding and cutting systems and operations. Students who successfully complete this program will have learned a diverse skillset giving them opportunities to enter the workforce as entry-level welders, fabricators, field technicians and positions them for higher learning in welding engineering, welding education or materials science.

## Articulation

- Eastern Michigan University, several BS degrees
- Pennsylvania College of Technology, BS degree
- Wayne State University, several BS degrees

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

**Minimum Credits Required for the Program: 66**

## Full-Time Students

Course	Title	Credits
<b>First Semester</b>		
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
Math Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#math">https://coursecatalog.wccnet.edu/academics/general-education/#math</a> )		3
<b>Credits</b>		<b>14</b>
<b>Second Semester</b>		
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
<b>Credits</b>		<b>13</b>
<b>Third Semester</b>		
WAF 230	Advanced Shielded Metal Arc Welding (SMAW)	4
WAF 231	Gas Tungsten Arc Welding (GTAW)	4
WAF 232	Semi-Automatic Welding Processes	4

Writing Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#writing">https://coursecatalog.wccnet.edu/academics/general-education/#writing</a> )		3
<b>Credits</b>		<b>15</b>
<b>Fourth Semester</b>		
WAF 150	Automated Welding and Cutting	3
WAF 210	Welding Metallurgy	3
WAF 233	Submerged Arc and Flux Core Arc Welding	3
Speech/Comp. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#writing">https://coursecatalog.wccnet.edu/academics/general-education/#writing</a> )		3
<b>Credits</b>		<b>12</b>
<b>Fifth Semester</b>		
Arts/Human. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#arthuma">https://coursecatalog.wccnet.edu/academics/general-education/#arthuma</a> )		3
Nat. Sci. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci">https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci</a> )		3
Soc. Sci. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci">https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci</a> )		3
WAF 239	Advanced Metal Fabrication	3
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>66</b>

## Part-Time Students

Course	Title	Credits
<b>First Semester</b>		
WAF 109	Welding Safety and OSHA Regulations	2
WAF 125	Introduction to Welding Processes I	2
WAF 126	Introduction to Welding Processes II	2
<b>Credits</b>		<b>6</b>
<b>Second Semester</b>		
WAF 106	Welding Print Reading	3
WAF 131	Thermal Cutting, Gouging and Weld Repair	3
<b>Credits</b>		<b>6</b>
<b>Third Semester</b>		
WAF 139	Basic Metal Fabrication	3
Writing Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#writing">https://coursecatalog.wccnet.edu/academics/general-education/#writing</a> )		3
<b>Credits</b>		<b>6</b>
<b>Fourth Semester</b>		
WAF 130	Shielded Metal Arc Welding (SMAW)	4
Math Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#math">https://coursecatalog.wccnet.edu/academics/general-education/#math</a> )		3
<b>Credits</b>		<b>7</b>
<b>Fifth Semester</b>		
NCT 120	Introduction to 2D CAD CAM Programming and Applications	2
WAF 140	Inspection and Testing	3
WAF 230	Advanced Shielded Metal Arc Welding (SMAW)	4
<b>Credits</b>		<b>9</b>
<b>Sixth Semester</b>		
Soc. Sci. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci">https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci</a> )		3

Speech/Comp. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#writing">https://coursecatalog.wccnet.edu/academics/general-education/#writing</a> )	3
<b>Credits</b>	<b>6</b>
<b>Seventh Semester</b>	
WAF 231 Gas Tungsten Arc Welding (GTAW)	4
WAF 232 Semi-Automatic Welding Processes	4
<b>Credits</b>	<b>8</b>
<b>Eighth Semester</b>	
WAF 150 Automated Welding and Cutting	3
WAF 210 Welding Metallurgy	3
WAF 233 Submerged Arc and Flux Core Arc Welding	3
<b>Credits</b>	<b>9</b>
<b>Ninth Semester</b>	
WAF 239 Advanced Metal Fabrication	3
Arts/Human. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#arthuma">https://coursecatalog.wccnet.edu/academics/general-education/#arthuma</a> )	3
Nat. Sci. Elective(s) ( <a href="https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci">https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci</a> )	3
<b>Credits</b>	<b>9</b>
<b>Total Credits</b>	<b>66</b>