

**WELDING**  
Certificate

**Minimum Credits: 31.0**  
**Contact Hours: 45.0**

**INTRODUCTION:** This one-year certificate program prepares the successful graduate for entry level employment as a general purpose welder, structural steel welder, or welding fabricator. Skills taught in the program include cutting techniques, plate and structural steel fabrication, pipe welding, non-ferrous welding, aluminum and stainless steel, fixture design, CNC plasma cutting, and arc welding procedures. Students are required to complete a welding fabrication project job in which they design, estimate costs, fabricate, and weld project assemblies. Students enrolled in this certificate program will be prepared to take the American Welding Society (AWS) Level I and Level II welding certification tests.

**BASIC COURSES**

COURSE	TITLE	CREDITS	CONTACT HOURS
CAD 132 & CAD 135 or CAD 150	AutoCAD Fundamentals and Intermediated Auto CAD or 3D Modeling <sup>A B</sup>	3.0	4.0
MET 200	Material Science <sup>A</sup>	3.0	4.0
MFG 101	Machining Processes I <sup>A</sup>	4.0	6.0
MFG 120	Print Interpretation & Processes <sup>A</sup>	3.0	4.0
MTH 110	Technical Math I	3.0	4.0
WLD 123	SMAW Welding Processes <sup>A</sup>	4.0	6.0
WLD 124	GMAW & FCAW Welding Processes <sup>A</sup>	4.0	6.0
WLD 240	Gas Tungsten Arc & Pipe Welding <sup>A</sup>	4.0	6.0
WLD 242	Welding Fabrication <sup>A</sup>	<u>3.0</u>	<u>5.0</u>
<b>CERTIFICATE PROGRAM CREDITS/CONTACT HOURS:</b>		31.0	45.0

**SUGGESTED SEQUENCING OF COURSES**

YEAR 1 (FALL SEMESTER) <u>17.0</u> CREDITS		CREDITS	CONTACT HRS	YEAR 1 (SPRING SEMESTER) <u>14.0</u> CREDITS		CREDITS	CONTACT HRS
WLD 123 SMAW Welding Processes	4.0	6.0	CAD 132 & CAD 135 or CAD 150	3.0	4.0		
MET 200 Material Science	3.0	4.0	WLD 124 GMAW & FCAW Welding	4.0	6.0		
MFG 101 Machining Processes I	4.0	6.0	WLD 240 Gas Tungsten Arc & Pipe Weld	4.0	6.0		
MFG 120 Print Interpretation & Processes	3.0	4.0	WLD 242 Welding Fabrication	<u>3.0</u>	<u>5.0</u>		
MTH 110 Technical Math I	<u>3.0</u>	<u>4.0</u>	TOTAL	14.0	21.0		
TOTAL	17.0	24.0					

**NOTES:**

<sup>A</sup>Included in occupational specialty – GPA of 2.0 or higher must be maintained in the area of occupational specialty.

<sup>B</sup> CAD 150 / 3D Modeling recommended for students who wish to pursue the Welding Technology AAS degree or the CAD / CAM Technology (Welding Option) degree.

Students with current American Welding Society (AWS) Entry Level Welder (Level I) and / or ASW Advanced Welder (Level II) certification, or students with a current AWS D1.1-96 Structural Welding certification will received credit for the applicable welding course(s). See program advisor for details.