

CCC Program Outcomes

Welding Technology

Upon successful completion of the technical education requirements and the suggested program requirements for a Certificate the student shall:

Program Outcomes

- 1 Develop knowledge of safe work practices in the field of welding.
- 2 Set up welding equipment using proper polarity, amperage setting, voltage setting (if applicable), and electrode for welding process being performed.
- 3 Properly set up and use oxyfuel cutting and welding equipment.
- 4 Produce welds able to meet visual acceptance criteria of power and process piping codes.
- 5 Demonstrate knowledge of dimensioning, piping symbols and template development.
- 6 Successfully calculate take offs, find angles and use squares and levels for fitting and tacking.
- 7 Layout, cut, and prepare specimens for guided bend test.

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7
WELD-110	Safety Orientation (OSHA 10)							
	Identify and describe OSHA safety standards.	X						
WELD-111	Oxy Acetylene and Safety							
	Identify safety issues, equipment, and supplies pertinent to oxyacetylene gas welding	X						
	Identify oxyacetylene gas welding procedures and performance			X	X			
	Identify oxy acetylene gas cutting procedures and performance			X				
WELD-120	Shielded Metal Arc Welding I							
	Identify safety issues, equipment, and supplies pertinent to shielded metal arc welding	X	X					

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7
	Identify and perform acceptable shielded metal arc welds and welding procedures in 2G position		X		X			
WELD-140	Shielded Metal Arc Welding II							
	Identify safety issues, equipment, and supplies pertinent to shielded metal arc welding	X	X					
	Identify and perform acceptable shielded metal arc welds and welding procedures in 5G position		X		X			
WELD-160	Shielded Metal Arc Welding III							
	Identify safety issues, equipment, and supplies pertinent to shielded metal arc welding in 6G position	X	X					
	Identify shielded metal arc welding procedures and performance in 6G position		X		X			X
WELD-181	Gas Metal Arc Welding I							
	Identify safety issues, equipment, and supplies pertinent to gas metal arc welding	X	X					
	Identify gas metal arc welding procedures and performance in 1G, 2G and 5G positions.		X		X			
WELD-231	Gas Metal Arc Welding II							
	Identify safety issues, equipment, and supplies pertinent to gas metal arc welding	X	X					
	Identify gas metal arc welding procedures and performance in 6G position.		X		X			X
WELD-222	Fluxed Cored Arc Welding I							
	Identify safety issues, equipment, and supplies pertinent to Flux Cored Arc Welding	X	X					

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7
	Identify Flux Cored Arc Welding procedures and performance in 1G, 2G and 5G positions.		X		X			
WELD-232	Flux Cored Arc Welding II							
	Identify safety issues, equipment, and supplies pertinent to Fluxed Cored Arc Welding	X	X					
	Identify Fluxed Cored Arc Welding procedures and performance in 6G position.		X		X			X
WELD-190	Gas Tungsten Arc Welding I							
	Safely use gas tungsten arc welding equipment	X	X					
	Perform GTAW welding procedures and performance in 2G position.		X		X			
WELD 210	Gas Tungsten Arc Welding II							
	Safely use gas tungsten arc welding equipment	X	X					
	Perform GTAW welding procedures in 5G position.		X		X			
WELD 220	Gas Tungsten Arc Welding III							
	Safely use gas tungsten arc welding equipment	X	X					
	Perform GTAW welding procedures in 6G position.		X		X			X
WELD 242	Pipe Layout & Blueprint Reading							
	Identify, explain and interpret print reading and layout for pipe welding					X		
	Demonstrate ability in welding fabrication in piping projects		X		X		X	