

Program Outcomes	Courses Aligned to Outcomes	Academic Reporting Year (e.g., 2021-2022)
P02. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.	WLDG 110	21-22
P02. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.	WLDG 111	21-22
P02. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.	WLDG 145	21-22
P02. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.	M191B	21-22
P02. Demonstrate measuring methods and apply mathematical concepts to solve problems related to welding.	WLDG 130	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 100	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 110	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 111	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 120	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 121	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 185	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 280	21-22
P03. Demonstrate the ability to follow industry safety practices.	WLDG 281	21-22
P04. Demonstrate industry work ethic and professionalism.	WLDG 298	21-22
P04. Demonstrate industry work ethic and professionalism.	BGEN 105	21-22
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 120	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 121	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 185	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 212	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 280	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 237	22-23
P05. Demonstrate basic knowledge about AWS (American Welding Society) D1.1, API (American Petroleum Institute) 1104, and ASME (American Society of Mechanical Engineers) Section IX welding codes with the ability to pass a welder qualification test in multiple processes according to these codes.	WLDG 281	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 110	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 121	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 209	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 212	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 237	22-23
P06. Troubleshoot and critically think through problems with welding systems and processes.	WLDG 245	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 100	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 110	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 111	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 120	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 121	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 185	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 209	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 237	22-23
P07. Demonstrate the ability to produce welds that meet visual inspection criteria based on AWS codes and industry standards in all positions on the five basic joint configurations with carbon steel, stainless steel, and aluminum, using Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), and Gas Tungsten Arc Welding (GTAW).	WLDG 245	22-23

PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 100	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 111	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 145	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 121	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 212	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 280	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 245	23-24
PO8. Plan, design, and fabricate a weldment to industry standards by combining skills related to the various processes taught in the program. This will include cutting, preparing, welding, and assembling projects to specified tolerances.	WLDG 281	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 100	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 120	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 185	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 209	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 260	23-24
PO9. Demonstrate the ability to set up and operate to industry standards Oxy-fuel, Air Carbon Arc Cutting, and Plasma Cutting equipment.	WLDG 281	23-24
PO10. Demonstrate the ability to perform pipe welds in multiple positions to industry standards and codes.	WLDG 209	23-24
PO10. Demonstrate the ability to perform pipe welds in multiple positions to industry standards and codes.	WLDG 212	23-24
PO10. Demonstrate the ability to perform pipe welds in multiple positions to industry standards and codes.	WLDG 281	23-24
PO4. Demonstrate industry work ethic and professionalism.	COMX 102	24-25
PO1. Demonstrate effective oral and written communication skills appropriate to the welding industry.	WRIT 104/ COMX 102	24-25
PO1. Demonstrate effective oral and written communication skills appropriate to the welding industry.	WRIT 121	24-25
PO1. Demonstrate effective oral and written communication skills appropriate to the welding industry.	WLDG 298	24-25
PO1. Demonstrate effective oral and written communication skills appropriate to the welding industry.	WLDG 245	24-25
PO11. Demonstrate a basic understanding of weld repair and equipment maintenance related to the welding field.	WLDG 260	24-25
PO11. Demonstrate a basic understanding of weld repair and equipment maintenance related to the welding field.	WLDG 245	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 110	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 111	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 117	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 145	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 120	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 121	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 130	24-25
PO12. Demonstrate the ability to interpret blueprints and welding symbols to accurately fabricate a product.	WLDG 217	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 100	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 110	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 111	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 121	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 205	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 212	24-25
PO13. Identify materials and apply the principles of metallurgy during the welding process to solve practical welding problems.	WLDG 260	24-25
PO14. Use Computer Aided Design software to: Draw and edit a 2D object, annotate a drawing, plot and scale drawings.	DDSN 114	24-25
PO14. Use Computer Aided Design software to: Draw and edit a 2D object, annotate a drawing, plot and scale drawings.	WLDG 245	24-25