

Welding Technology Certificate Curriculum Map

This curriculum map is designed to show how program learning outcomes are introduced, developed, and mastered across courses in the program. Use the following guidance when completing or reviewing the map:

Introduced: Indicates the course provides students with their first exposure to a concept or skill. At this stage, students are expected to demonstrate only a basic understanding.

Developed: Indicates that students gain more in-depth knowledge, practice, and reinforcement of the concept or skill. Students are expected to begin applying what they have learned with increasing independence.

Mastered: Indicates that students can independently and skillfully apply the outcome, demonstrating a high level of understanding and competence appropriate for graduation and entry into the workforce or a 4-year institution.

Courses are listed in rows and PLOs are in columns	Students will be able to perform welds using various processes (SMAW, GMAW, GTAW, FCAW, etc.) on different joint types and in all positions (1F-6G)	Students will be able to interpret blueprints, including understanding AWS welding symbols and other relevant specifications	Students will be able to assess the quality of welds based on visual inspection and other relevant criteria.	Students will gain foundational knowledge and skills in metal fabrication techniques, such as cutting, fitting, and assembly.	Students will demonstrate a strong understanding of welding safety procedures, protocols, and safe operation of welding equipment.	Students will be proficient in oxy-fuel cutting (OFC) and plasma arc cutting (PAC).
WELD1110 Introduction to Welding Fundamentals	Introduced	Introduced	Introduced	Introduced	Introduced	Introduced
WELD1110L Introduction to Welding Fundamentals Lab	Introduced	Introduced	Introduced	Introduced	Introduced	Introduced
WLDG1120 Print Reading for Welders	Developed	Mastered	Developed	Developed	Developed	Not Addressed
WLDG1120L Print Reading for Welders Lab	Developed	Mastered	Developed	Developed	Not Addressed	Developed
WLDG1140 GMAW I (Gas Metal Arc Welding)	Mastered	Developed	Mastered	Not Addressed	Developed	Not Addressed
WLDG1140L GMAW I (Gas Metal Arc Welding) Lab	Mastered	Developed	Developed	Not Addressed	Developed	Not Addressed
WLDG1130 SMAW I (Shielded Metal Arc Welding)	Mastered	Developed	Developed	Not Addressed	Developed	Not Addressed
WLDG1130L SMAW I (Shielded Metal Arc Welding) Lab	Mastered	Developed	Developed	Not Addressed	Developed	Not Addressed
WELD1150 Metal Fabrication	Developed	Developed	Developed	Developed	Developed	Developed
WELD1150 L Metal Fabrication I Lab	Developed	Developed	Developed	Developed	Developed	Developed
WELD1140 GTAW I (Gas Tungsten Arc Welding)	Mastered	Developed	Developed	Not Addressed	Developed	Not Addressed
WELD1140L GTAWI (Gas Tungsten Arc Welding) Lab.	Mastered	Developed	Developed	Not Addressed	Developed	Not Addressed
WELD1171 Layout and Fabrication	Developed	Mastered	Developed	Mastered	Developed	Mastered
WELD1171L Layout and Fabrication Lab	Developed	Mastered	Developed	Mastered	Developed	Mastered
WELD1101 Weld Art	Developed	Developed	Developed	Developed	Developed	Developed
WELD1191 Weld Art Lab	Developed	Developed	Developed	Developed	Developed	Developed
WELD2150 Welding Fabrication II	Developed	Mastered	Mastered	Mastered	Mastered	Mastered
WELD2150L Welding Fabrication II Lab	Developed	Mastered	Mastered	Mastered	Mastered	Mastered
WELD2290L Welder Qualifications	Mastered	Mastered	Mastered	Mastered	Mastered	Mastered