

Welding (Technical Diploma)

The Welding Technical Diploma prepares individuals for employment in the field of welding. Instruction is provided in various processes and techniques of welding – flux-core arc welding, plasma arc welding, blueprint reading, weld symbols, and joints – while facilitating the competitiveness of graduates for entry-level technical and supervisory positions. A career and technical certificate (CTC) may be earned in the first semester and a certificate of technical studies (CTS) may be earned in the second semester; a technical diploma may be earned upon completion of all technical courses. Students also have the option to complete the Technical Studies Associate of Applied Science with a concentration in Welding.

Upon completion of the technical courses, which covers the skills designated by the American Welding Society (AWS) required for entry level welders, students will be prepared to take the AWS Entry Level Welder test.

To receive any credential in this program, the student must:

- Complete the program of study below.
- Earn a “C” or better in all courses that are to be used toward the credential.

Program Outcomes. Upon successful completion of the program, the graduate will be able to:

1. Demonstrate the skills needed for entry and advanced levels of employment in a welding career.
2. Demonstrate various processes and techniques of welding including oxyfuel cutting, carbon arc cutting, shielded metal arc welding, gas tungsten arc welding, flux-core arc welding, gas metal arc welding, pipe and structural plate welding, and plasma arc cutting.
3. Demonstrate the skills designated by the American Welding Society (AWS) and be prepared to take the AWS entry-level welding test.
4. Demonstrate safe and efficient work practices, basic occupational skills, employability skills, and strong work ethics.

Program of Study

First Semester		Credit Hours
CORE 1003	Introduction to Craft Skills	3
WELD 1113	Welding Fundamentals	3
WELD 1211	Cutting Processes	1
WELD 1318	SMAW I (Fillet Weld)	8
Semester Total:		15
Second Semester		Credit Hours
WELD 1419	SMAW II (V-Groove Open, BU/Gouge & Plate 2G-4G)	9
WELD 1519	SMAW III (Pipe Welds I 2G-6G)	9
Semester Total:		18
Third Semester		Credit Hours
WELD 2116	GTAW (Pipe 2G-6G)	6
WELD 2213	FCAW (Fillet & Groove Welds)	3
WELD 2313	GMAW (Fillet & Groove Welds)	3
Semester Total:		12

Total Program Credit Hours: 45

Welding Credentials Available:

		Credit Hours
CORE 1003	Introduction to Craft Skills	3
WELD 1113	Welding Fundamentals	3
WELD 1211	Cutting Processes	1
CTC: Welding Fundamentals		7

		Credit Hours
CORE 1003	Introduction to Craft Skills	3
WELD 1113	Welding Fundamentals	3
WELD 1211	Cutting Processes	1
WELD 1318	SMAW I (Fillet Weld)	8
WELD 1419	SMAW II (V-Groove Open, BU/Gouge & Plate 2G-4G)	9
CTS: Structural Welder (all courses required for Welding Fundamentals CTC plus WELD 1318 and WELD 1419)		24

Students interested in pursuing the Technical Studies Associate of Applied Science degree with a concentration in Welding should contact the Division of Technical Education at 225-216-8367 for more information.