

WELDING TECHNOLOGY ATC

Welding Technology is a participating organization of the American Welding Society's SENSE (Schools Excelling through National Skill standards Education) Program. This program is designed to provide training in a sequential manner for various welding processes, starting with simple tasks and progressing through more complex assignments. Those processes include: shielded metal arc welding, gas metal arc welding, flux cored arc welding, gas tungsten arc welding, oxy-acetylene cutting, brazing and welding, and the use of plasma arc cutting equipment. Students receive practical and theoretical training in the weldability of metals and alloys, blueprint reading, mathematics, and metallurgy.

Students are trained to international standards using modern equipment. All skills and lab assignments are performance based using standards assigned by the prevailing industrial welding codes. Safety, care, use, and adjustment of the welding lab equipment is stressed in each of the classes. Included in each 27 hour week is study in welding theory and related practical science, and applying this knowledge in the laboratory.

All graduates are given the opportunity to take the unlimited thickness, all position, welder certification test at no cost to them.

Admission requirements

All welding students must be core math ready and needs to complete a program application.

Admission Checklist

1. Complete general LC State admission requirements
2. Submit college placement exams
3. Schedule shop consultation with program faculty

The welding program has limited space, and a waitlist is utilized if classes are full. Duration on the waitlist is one semester. If students do not move into program classes after one semester on the waitlist, they need to reschedule their shop consultation.

Entrance Requirements

- ALEKS score of 30 or higher in Math and Writing Placement Exam score of 2 or higher or equivalent college placement exams (ACT, SAT, etc.)

Upon completion of the Advanced Technical Certificate, the student will possess the technical skills to:

- Understand and operate basic welding power sources used in industry and the welding and cutting processes associated with them.
- Identify and interpret welding symbols, structural shapes, and various ferrous and non-ferrous metal metallurgical properties for fabrication and the blueprints associated with them.
- Demonstrate welding competency by performing and passing weld qualification testing.
- Demonstrate and perform safety requirements for welding and knowledge of how to operate welding shop equipment and tools safely.
- Interpret welding code requirements and inspect welds to critique for quality.

Advanced Technical Certificate Requirements

Code	Title	Credits
Program Requirement		
MTHPT-137	MATH FOR TECHNOLOGY	4.00
Technical Core		
WLDTC-150	WELDING POWER SOURCES	2.00
WLDTC-151	WELDING CODES FOR CERTIFICATIONS	2.00
WLDTC-152	QUALITY CONTROL FOR WELDING INSPECTION	2.00
WLDTC-155	BASIC WELDING PROCESSES LAB (or WLDTC-155A and WLDTC-155B)	7.00
WLDTC-161	WELDING PROCESSES AND APPLICATIONS	2.00
WLDTC-162	METALLURGY	2.00
WLDTC-165	ADVANCED WELDING PROCESSES	7.00
WLDTC-250	DRAFTING AND PIPEFITTING	2.00
WLDTC-251	BLUEPRINT READING	2.00
WLDTC-252	HEAT TREATMENT	2.00
WLDTC-254	PIPE WELDING: SMAW LAB	7.00
WLDTC-261	BENCHWORK FOR WELDERS	2.00
WLDTC-262	DISTORTION CONTROL	2.00
WLDTC-264	PIPE WELDING GTAW LAB	7.00

WLDTC-266	PROJECT WELDING FROM DRAWING LAB	2.00
WLDTC-270	DIRECTED WELDING PROJECTS	4.00
Total Credits		58.00