

WELDING TECHNOLOGY AAS

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 need to complete a program application.

Admission Checklist

1. Complete general LC State admission requirements
2. Submit college placement test scores
3. Schedule a 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.

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

Upon completion of the Welding Technology program, the student will have basic 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.

General Education Requirements

Code	Title	Credits
Written Communication		
ENGL-101	WRITING AND RHETORIC I	3.00
Oral Communication		
Select one of the following:		3.00
COMM-101	FUNDAMENTALS OF ORAL COMMUNICATION	
COMM-203	SMALL GROUP COMMUNICATION	
COMM-204	PUBLIC SPEAKING	
Mathematical Ways of Knowing		
MTHPT-137	MATH FOR TECHNOLOGY	4.00
Social & Behavioral Ways of Knowing		
Select one of the following:		3.00
ANTH-102	CULTURAL ANTHROPOLOGY	
ANTH-120	WORLD PREHISTORY	
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES	
ECON-201	PRINCIPLES OF MACROECONOMICS	
ECON-202	PRINCIPLES OF MICROECONOMICS	
GEOG-102	INTRODUCTION TO GEOGRAPHY	
HIST-101	WORLD HISTORY I	

HIST-102	WORLD HISTORY II
HIST-111	UNITED STATES HISTORY I
HIST-112	UNITED STATES HISTORY II
HRPT-184	DIVERSITY IN ORGANIZATIONS
HRPT-185	HUMAN RELATIONS IN ORGANIZATIONS
POLS-101	AMERICAN NATIONAL GOVERNMENT
POLS-237	INTERNATIONAL POLITICS
POLS-285	COMPARATIVE GOVERNMENT
PSYC-101	INTRODUCTION TO GENERAL PSYCHOLOGY
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY
SOC-101	INTRODUCTION TO SOCIOLOGY
SOC-102	SOCIAL PROBLEMS
SS-184	DIVERSITY IN ORGANIZATIONS
SS-185	HUMAN RELATIONS IN ORGANIZATIONS

Additional General Education Core **3.00**

*Additional Core Course cannot be used to fulfill a requirement above.

Select the link below to review LC State's General Education Core courses

<http://catalog.lcsc.edu/general-education> (<http://catalog.lcsc.edu/general-education/>)

Total Credits **16.00**

Program Requirements

Code	Title	Credits
Technical Core		
Take all of the following:		
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		54.00

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
MTHPT-137	MATH FOR TECHNOLOGY	4.00
WLDTC-150	WELDING POWER SOURCES	2.00
WLDTC-155	BASIC WELDING PROCESSES LAB	7.00
WLDTC-261	BENCHWORK FOR WELDERS	2.00
WLDTC-270	DIRECTED WELDING PROJECTS	2.00
Credits		17.00

Spring

ENGL-101	WRITING AND RHETORIC I	3.00
CORE	Social & Behavioral Ways of Knowing	3.00
WLDTC-165	ADVANCED WELDING PROCESSES	7.00
WLDTC-251	BLUEPRINT READING	2.00
WLDTC-262	DISTORTION CONTROL	2.00
WLDTC-270	DIRECTED WELDING PROJECTS	2.00
Credits		19.00

Second Year**Fall**

CORE	Oral Communication	3.00
WLDTC-161	WELDING PROCESSES AND APPLICATIONS	2.00
WLDTC-162	METALLURGY	2.00
WLDTC-250	DRAFTING AND PIPEFITTING	2.00
WLDTC-254	PIPE WELDING:SMAW LAB	7.00
WLDTC-266	PROJECT WELDING FROM DRAWING LAB	2.00
Credits		18.00

Spring

WLDTC-151	WELDING CODES FOR CERTIFICATIONS	2.00
WLDTC-252	HEAT TREATMENT	2.00
WLDTC-152	QUALITY CONTROL FOR WELDING INSPECTION	2.00
WLDTC-264	PIPE WELDING GTAW LAB	7.00
CORE	Additional General Education Course	3.00
Credits		16.00
Total Credits		70.00

View on YouTube (https://www.youtube.com/watch?v=5839lvNcK_g)

Graduates from Welding Technology programs go on to obtain careers in a variety of fields:

- Underwater Welder
- Fabricator
- Braze operator
- Aluminum Welder
- Boat Manufacturer
- Fitter Welder
- Machine Operator
- Spot Welder
- Finishing Technician
- Iron Worker
- Boilermaker