

WELDING TECHNOLOGY

Technical Certificate: 29 Credits

Certificates of Proficiency: 11-12 Credits Each

TECHNICAL CERTIFICATE	HOURS
*TECH1113 Workplace Writing	3
**TECH1003 Technical Math	3
TECH1203 Technical Success Strategies	3
TECH1204 Technical Fundamentals	4
WELD2344 Welding I – SMAW	4
WELD2354 Welding II – SMAW	4
WELD2377 Welding IV – TIG (GTAW)	7
WELD2367 Welding III – MIG (GMAW)	7

CERTIFICATES OF PROFICIENCY	HOURS
SMAW Welding – 12 Credits	
TECH1204 Technical Fundamentals	4
WELD2344 Welding I – SMAW I	4
WELD2354 Welding II – SMAW II	4
MIG (GMAW) Welding – 11 Credits	
TECH1204 Technical Fundamentals	4
WELD2367 Welding III – MIG (GMAW)	7
TIG (GTAW) Welding – 11 Credits	
TECH1204 Technical Fundamentals	4
WELD2377 Welding IV – TIG (GTAW)	7

Score Requirements			
Subject	Next Gen	ACT	Accuplacer
Reading	230	17	78
Writing	255	17	83
Math	240	17	30

***TECH1113 Workplace Writing is required if Reading and Writing scores are lower than required scores. Student must score above in both areas to test out of Workplace Writing.**

****If Math scores are lower than the required score, TECH1003 Technical Math is required. Reading scores are required for Technical Math. If Reading scores are below what is required, Workplace Writing is a co-req to Technical Math.**

ADVISOR: Tiana Kelly tkelly@cccua.edu

PROGRAM INFORMATION: National Center for Construction Education and Research (NCCER) curriculum will be used for instruction toward both NCCER accreditation and American Welding certification; additional work experience may be necessary depending on the level of proficiency in various forms of welding developed during the course of instruction.

SMAW courses will teach students basic welding techniques in shielded metal arc welding, including cutting with oxyfuel equipment, electrode classification, and testing welds using destructive and non-destructive methods. Lab class provides opportunities for students to apply knowledge from theory-based classes to practical exercises. These courses cover the NCCER curriculum for Welding Level One.

The MIG (GMAW) course includes an in-depth study of the gas metal arc welding process. Students will learn the principles of a constant voltage power source and the mechanics and maintenance of the wire feeding system. Lab classes provide opportunities for students to practice short circuiting transfer on stainless and mild steel and globular transfer with flux cored wire feeding systems. The curriculum for this course is based on the NCCER guidelines.

In the TIG (GTAW) course, students will use gas tungsten arc welding equipment to perform various welds in all positions. Lab class provides opportunities for students to practice GTAW. Upon completion of this course students will be eligible to test the NCCER Welding Level Two certification.

CAREER OPTIONS: The Technical Certificate and Certificates of Proficiency focus on welding processes designed to develop the skills necessary for entry into industrial and commercial welding employment.