Advanced Manufacturing Welding Processes Certificate

West Burlington Campus

Program Information

The Welding program is designed to give students a solid foundation in the principles, practices and usage of both gas and electric welding in the industrial setting. Students get ample practice in welding skills, brazing and flame cutting. Instruction emphasizes production fabrication techniques, maintenance and repair procedures, blueprint reading, properties of metals and inspection methods, among other aspects of the welding trade.

SCC is an accredited American Welding Society (AWS) testing facility. Students will have the opportunity to obtain AWS Certifications.

There are several levels of welding certificates, a diploma and an associates of applied science degree. See the links below for details.

The Basic Welding Processes certificate is awarded after successful completion of WEL-111, WEL-160, WEL-186 and WEL-192.

The Advanced Welding Processes certificate is awarded after earning the Basic Welding Processes certificate and successful completion of WEL-130, WEL-164, WEL-172, WEL-197 and MAT-702.

The Welding diploma is awarded after successful completion of the first two semesters. (This is equivalent to the Advanced Welding Processes certificate and successful completion of ENG-110.)

The Advanced Manufacturing Welding Processes certificate is awarded after earning both Welding Processes certificates and successful completion of WEL-182, WEL-198, WEL-292, WEL-235 and WEL-720.

The Welding AAS degree is awarded after successful completion of all five semesters.

*Certificates and diploma can be earned one time.

Please view the technical standards for this course.

Instructor and Staff

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Program Requirements

Fall Semester I		Credit
MAT-702	Introduction to Math Applications	3
WEL-111	Welding Blueprint Reading	3
WEL-160	Arc Welding I (SMAW)	5
WEL-186	Gas Metal Arc Welding	4
WEL-192	Gas Tungsten Arc Welding	4
Semester Total		19

Spring Semester I		Credit
WEL-130	Oxyacetylene Welding	2
WEL-164	Arc Welding II (SMAW)	4
WEL-172	Advanced Shielded Metal Arc Welding II	4
WEL-197	Gas Tungsten Arc Welding - Tube	3
Semester Total		13

Fall Semester II		Credit
WEL-182	Flux Cored Arc Welding	2
WEL-198	Advanced Gas Metal Arc Welding - Aluminum	2
WEL-292	Pipe Welding/SMAW - Uphill	4
Semester Total		8

Spring Semester II		Credit
WEL-235	Layout and Fabrication	4
WEL-720	Introduction to Robotic Arc Welding	2
Semester Total		6

Program Total		46