

# Welding - Advanced Manufacturing Welding Processes Certificate

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## West Burlington Campus

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