



## Industrial Welding Technology

Associate of Applied Science Degree

2008-09 Academic Year

Major Code: 480508A

### About the Program

The Associate of Applied Science degree in Industrial Welding Technology is designed for students whose goals are to enter the job market as entry-level welders/fabricators or enter into one of the trade unions. Upon completing the program, students will be qualified to test for certification to the American Welding Society (AWS) D1.1-04 Structural Steel Welding Codes and the AWS D1.4-98 Sheet Steel Welding Code. Students would also be able to test to certify as pipe welders to the American Society of Mechanical Engineers (ASME) Section IX Welding Code, and as Level I Entry Level and Level II Advanced Level Welder by the AWS EG2.0 and 3.0 welder training programs.

Additionally, students will have a good foundation in structural steel layout, pipefitting, and sheet metal pattern development. Students will also be prepared with mathematics and communication skills, and be knowledgeable of the human relations skills necessary to become valuable employees in the industrial welding field. Upon entry into the various trade unions, this training will facilitate rapid movement through the apprenticeship programs.

### Entry Requirements

Students are required to take a placement test to determine skill level and readiness in math, reading and writing. As part of their training program, students must begin with the courses within their skill levels as determined by placement test scores. In addition, students may also be required to enroll in classes that would increase their employability and success.

### Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies. In order to ensure that coursework is current, program courses over seven years old must be reviewed and approved by the appropriate coordinator before being accepted toward core requirements. High school "2+2" Early College Credit will be accepted in accordance with current agreement. Verified industry experience may be substituted for some coursework in accordance with college policy and the coordinator's approval.

### Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their degrees. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned a "C" or better grade.

### Prerequisites

Course No.	Course Title	Credits
BT113	Business English I or	
WR115	Introduction to Expository Writing or higher level composition <sup>1</sup>	2-3
—	Approved 3-4 credit computer science class, CS120 or above or documented computer proficiency) <sup>1,2</sup>	0-4
RD30	College Reading II (or designated placement test score as shown on current indicator chart)	4
MTH20	Pre-algebra (or designated placement test score as shown on current indicator chart)	4

### First Year Required Courses

Course No.	Course Title	Credits
<b>First Term</b>		
MET101	Mechanical Drafting	3
MTH63	Applied Technical Math or	
MTH60	Fundamentals of Algebra I or higher level math	4
WLD111	Technology of Industrial Welding I	<u>6</u>
		13
<b>Second Term</b>		
LIB127	Introduction to Library Research Methods	1
WLD112	Technology of Industrial Welding II	6
WLD121	Fabrication and Repair Practices I	5
WLD140	Blueprint Reading for Welders I	<u>3</u>
		15
<b>Third Term</b>		
BT114	Business English II or	
WR121	English Composition I or higher level composition <sup>3</sup>	3
PSY101	Psychology of Human Relations or	
BT101	Human Relations in Organizations	3
WLD113	Technology of Industrial Welding III	6
WLD122	Fabrication and Repair Practices II	5
9.167	Emergency First Aid	<u>1</u>
		18
<b>TOTAL FIRST YEAR CREDITS</b>		<b>46</b>

### Second Year Required Courses

Course No.	Course Title	Credits
<b>Fourth Term</b>		
GS104	Physical Science w/lab	4
WLD211	Technology of Industrial Welding IV	6
WLD221	Welding Codes, Procedures, and Costs	3
WLD240	Advanced Blueprint Reading for Welders	<u>3</u>
		16
<b>Fifth Term</b>		
HUM101	Introduction to Humanities or	
ART299	Spec. Studies: Welded Steel or	
WLD230	Art Sculpture Welding I or approved humanities elective (see catalog for approved list of electives)	3
MET160	Materials and Metallurgy	3
WLD212	Technology of Industrial Welding V	6
WLD222	Quality Assurance, Quality Control, and Inspection/Testing of Welds	<u>4</u>
		16
<b>Sixth Term</b>		
IT280	Cooperative Work Experience/Welding	3
WLD213	Technology of Industrial Welding VI	6
—	Approved program elective	<u>4</u>
		13
<b>TOTAL SECOND YEAR CREDITS</b>		<b>45</b>
<b>TOTAL PROGRAM CREDITS</b>		<b>91</b>

## Approved Program Electives (4 credits required)

Course No.	Course Title	Credits
CT111	Computer Aided Drafting I: Architectural	3
CT211	Computer Aided Drafting II: Architectural	3
CT212	Computer Aided Drafting III: Architectural	3
MET121	Computer Aided Drafting I: Mechanical (SolidWorks)	3
MET122	Computer Aided Drafting II: Mechanical (SolidWorks)	3
MET123	Computer Aided Drafting III: Mechanical (SolidWorks)	3
MFG121	Manufacturing Processes I	4
MFG122	Manufacturing Processes II	4
MFG123	Manufacturing Processes III	4
WLD103	Welding Fundamentals III	3
WLD250	Selected Topics in Welding	variable
WLD230	Art Sculpture Welding I (if not taken in fifth term)	3
WLD231	Art Sculpture Welding II	3

<sup>1</sup> Required for graduation.

<sup>2</sup> Successful completion of CS101 or otherwise meeting the proficiency requirement within the last 10 years fulfills this requirement.

<sup>3</sup> Students must complete either BT113 and BT114 or WR115 and WR121 (or higher level composition classes). Three credits of speech may be substituted for 3 credits of writing.

For more information contact the Industrial Welding Department:

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This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.

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