

Welding Technology

PROGRAM DESCRIPTION



The Welding Technology program offers students a modular-based curriculum in one or two year formats including technical courses in structural and pipe welding, pipe fitting and blueprint reading and drafting. The welding certificate offers training in basic and pipe welding techniques utilizing the shielded metal arc welding process. Second year students enroll in advanced welding and receive training in gas metal arc welding, gas tungsten arc welding, and pipe fabrication.

All the welding program options are combined with a variety of general education courses and technology theory courses. Significant emphasis is placed on math, communication, physical science, and social science courses. Special courses in the welding metallurgy and quality assurance/quality control are also required within the technology. This mix of theory courses, general education courses, and skill training places our graduates in high demand.

There are a number of scholarships awarded to students in welding technology. The Reginald Roy Scholarship was offered for the first time for the 2000-2001 academic year. This scholarship encourages students to maximize skill potential and career opportunities.

KEY LEARNING OBJECTIVES

Graduates of the associate in applied science degree function at an entry-level position for welders in the following areas:

- AWS D1.1 Shielded Metal Arc Welding (SMAW) Structural Certification
- ASME Section IX SMAW Pipe Certification
- ASME Section IX GTAW Pipe Certification
- Demonstrate safe, competent use of Oxy-Fuel Cutting Equipment

Graduates take the following tests:

- A.W.S. Structural Certification
- A.S.M.E. Section 9 SMAW Pipe Certification
- A.S.M.E. Section 9 GTAW Pipe Certification

PREREQUISITES

AAS Degree: Admission to the Associate in Applied Science Degree Welding Technology program is determined upon successful completion of the Certificate in Pipe Welding Program.

Certificate: high school level Algebra I required.



Programs of Study

Automotive
Building Construction
Business Management-Career Option
Business Management-Transfer Option
Business Management-Small Business
Career Studies
Computer Systems Technology
Criminal Justice
Culinary Arts
Diesel, Truck & Heavy Equipment
Digital Graphic Design
Early Childhood Education
Education-Career & Technical Ed
Education-Elementary Ed
Education-Secondary Ed
Electrical and Automation
Electricians Technology
Emergency Medical Services
Fine Woodworking & Cabinet Making
Fire Science
Human Services
Liberal Studies
Medical Assistant
Medical Office-Coding Option
Medical Office-Health Care Secretary
Medical Radiography
Nursing
Outdoor Recreation & Tourism
Plumbing
Refrigeration, Air Conditioning & Heating
Restaurant & Food Service Management
Surgical Technology
Trade & Technical Occupations
Welding

Admissions Office—EMCC

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WELDING TECHNOLOGY Certificate In Pipe Welding

FIRST SEMESTER

	CREDITS
WEL 111 Metal Technology	3
WEL 131 Shielded Metal Arc Welding (SMAW) Basic	2
WEL 132 Shielded Metal Arc Welding Advanced I	2
WEL 134 Shielded Metal Arc Welding Structural	2
WEL 151 Flux-Cored Arc Welding (FCAW)	2
WEL 186 Blueprint Reading & Drafting for Welders	3
MAT 113 Technical Mathematics I	3

SECOND SEMESTER

	CREDITS
WEL 133 Shielded Metal Arc Welding Advanced II	2
WEL 135 Shielded Metal Arc Welding Pipe I	2
WEL 136 Shielded Metal Arc Welding Pipe II	2
WEL 137 Shielded Metal Arc Welding Pipe III (ASME Qualification)	2
ENG 101 College Composition	3
Restricted	
Elective Any Math or Science (100 level or higher)	3

TOTAL CERTIFICATE CREDITS

31-32

IMPORTANT:

Be advised that EMCC has space available each fall for 24 first-year Pipe Welding certificate students and only 14 second-year Welding Technology Associate in Applied Science Degree students. All students who are offered admission are initially placed in the one-year Pipe Welding Certificate Program. Upon completion of their first semester in technology courses, students are then offered the opportunity to apply for second-year slots in the Associate Degree Program. (Grade point average and successful progression in all courses including the general education courses required for welding are used in awarding the second-year slots). Placement test scores may extend program length upon entry. For further clarification, please contact the Admissions Office.

WELDING TECHNOLOGY Associate in Applied Science Degree

All certificate in Pipe Welding classes required

31

THIRD SEMESTER

	CREDITS
FIT 231 Pipefitting Fundamentals	2
FIT 233 Practical Pipefitting I	1.5
FIT 235 Practical Pipefitting II	1.5
WEL 265 Gas Metal Arc Welding Basic	1
WEL 267 Gas Metal Arc Welding Advanced	1
WEL 269 Gas Metal Arc Welding Pipe	1
ENG 215 Business and Technical Writing	3
Restricted	
Elective Any Humanities/Social Science (100 level or higher)	3
Restricted	
Elective Any Communications/Humanities/Math/Social Science/Science (100 level or higher)	3

FOURTH SEMESTER

	CREDITS
WEL 222 Quality Assurance/Quality Control	4
WEL 270 Gas Tungsten Arc Welding Basic	2
WEL 277 Gas Tungsten Arc Welding Pipe I	2
WEL 278 Gas Tungsten Arc Welding Pipe II	2
WEL 279 Gas Tungsten Arc Welding Pipe III	2
Restricted Elective Any Humanities or Social Science (100 level or higher)	3

TOTAL AAS DEGREE CREDITS

63-64

DID YOU KNOW?

EMCC provides campus housing
for over 260 students.



EMCC's Student Success Center
offers tutoring services free of
charge to our students.

 EMCC's Athletic Department
sponsors many on-
campus intramural
sports and
recreational events.

EMCC students enjoy small class
sizes, supportive faculty,
transferable courses and
leadership/engagement
opportunities all for under \$4,000
per year

(most programs, based on 30 credit
hours, in-state rate)

Campus tours are available.

Call 207-974-4857 or schedule an
appointment through our website.

For more information or to apply
online, visit us on the web at

www.emcc.edu

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action institution and employer. For more info,
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