

ASSOCIATE OF APPLIED SCIENCE - MANUFACTURING TECHNOLOGIES - WELDING EMPHASIS

The Associate of Applied Science manufacturing technologies degree with a welding emphasis gives the student the training necessary to earn the American Welding Society structural steel certifications, which are required for employment in most areas of the construction and manufacturing fields involving welding, along with the general education requirements and employability skills that are sought after by all employers in the construction and manufacturing trades.

Degree Outcomes

Students completing the degree will:

- Fulfill the requirements of the Associate of Applied Science.
- Demonstrate competency in their specified emphasis.

Emphasis Outcomes

Students completing the emphasis will:

- Be proficient in four major welding processes and prepared for industry-standard certification.
- Identify and explain technical drawings and apply print reading techniques required in the welding industry.
- Consistently demonstrate safe and proper use of welding equipment, power tools, and accessories in the performance of welding and joinery.

AAS degrees are generally non-transfer degrees that are designed for students to enter the workforce.

To earn an AAS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AAS (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas>).
4. Have no financial or library obligation to the college.

General Education Requirements

Diversity ¹	[3]
Recommended:	
AAD 201 History of the Built Environment	
Communications/English	6
Recommended:	
ENG 101 Composition I	
ENG 107 Technical Communications I	
Fine Arts/Humanities/Social Science	3
Recommended:	
AAD 201 History of the Built Environment	
Human Relations ¹	[3]

Requirement is satisfied through embedded curriculum in the following courses:

MPT 140	Quality Control
OSH 222	General Industry Safety
WELD 211	Welding I
WELD 212	Welding I Practice
WELD 221	Welding II
WELD 222	Welding II Practice

Mathematics¹

[3]

Requirement is satisfied through embedded curriculum in the following courses:

DFT 110	Print Reading for Industry
MPT 140	Quality Control
WELD 211	Welding I
WELD 212	Welding I Practice
WELD 221	Welding II
WELD 222	Welding II Practice

Science

3

Recommended:

MTT 150	Metallurgy I
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U.S. and Nevada Constitutions

3

Degree Requirements

DFT 110	Print Reading for Industry	3
MPT 140	Quality Control	3
OSH 222	General Industry Safety	1

Emphasis Requirements

IS 101	Introduction to Information Systems	3
WELD 211	Welding I	3
WELD 212	Welding I Practice	2
WELD 221	Welding II	3
WELD 222	Welding II Practice	2
WELD 231	Welding III	3
WELD 232	Welding III Practice	2
WELD 241	Welding IV	3
WELD 242	Welding IV Practice	2

Elective Requirements

Select 15 units from the following: 15

ENRG 110	Basic Electricity
MTT 101	Introduction to Machine Shop
MTT 105	Machine Shop I
MTT 150	Metallurgy I
WELD 101	Basic Metals
WELD 250	Welding Certification Preparation
WELD 290	Internship in Welding

Total Units 60

¹ Course may also count toward degree requirements. Please consult with Academic Advisement.

Course	Title	Units
1st semester		
Communications/English ³		3
Elective ³		3

DFT 110	Print Reading for Industry	3
OSH 222	General Industry Safety	1
WELD 211	Welding I	3
WELD 212	Welding I Practice	2
Semester Total		15
2nd semester		
Communications/English ³		3
Elective ³		6
MPT 140	Quality Control	3
WELD 221	Welding II	3
WELD 222	Welding II Practice	2
Semester Total		17
3rd semester		
Humanities/Diversity ³		3
IS 101	Introduction to Information Systems	3
U.S. and Nevada Constitutions ²		3
WELD 231	Welding III	3
WELD 232	Welding III Practice	2
Semester Total		14
4th semester		
Elective ³		6
Science ³		3
WELD 241	Welding IV	3
WELD 242	Welding IV Practice	2
Semester Total		14
Total Units		60

² See approved General Education list for the AAS Degree. (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas>)

³ See program recommendations or requirements.