



**2014-2015 PETITION/PROGRAM SHEET**  
**Degree: Associate of Applied Science**  
**Major: Manufacturing Technology**  
**Emphasis: Welding Technology**

**About This Emphasis . . .**

The Welding Technology Degree program is designed to provide training and the opportunity to become proficient at SMAW, GMAW, GTAW, FCAW, OAW, OAC, PAC, CAC-A on plate and SMAW on pipe. Students study welding, cutting, layout, fabrication, fluid power, pneumatics and technical math. Safety, attitude and quality of workmanship are stressed throughout this course. The welding AAS degree prepares students for advanced level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society.

For more information on what you can do with this major, go to <http://www.coloradomesa.edu/wccc/programs.html>

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written forms that are needed for entry level employment in the industry. (Communication Fluency)
2. Apply Mathematical concepts for the Welding industry to meet entry level employment requirements.(Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to the Welding industry. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, principles and application of associated technical skills in the industry. (Specialized Knowledge)
5. Perform the necessary applied Welding skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical and civic responsibility necessary for employees the welding industry. (Specialized Knowledge)

**NAME:** \_\_\_\_\_ **STUDENT ID #** \_\_\_\_\_

**LOCAL ADDRESS AND PHONE NUMBER:** \_\_\_\_\_

\_\_\_\_\_ ( ) \_\_\_\_\_

I, (Signature) \_\_\_\_\_, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

Signature of Advisor \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

Signature of WCCC Director \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

Signature of Registrar \_\_\_\_\_ Date \_\_\_\_\_ 20\_\_\_\_

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

**Degree Requirements:**

- 64 semester hours total (A minimum of 16 taken at CMU in no fewer than two semesters)
- 2.00 cumulative GPA or higher in all CMU coursework and a “C” or better must be achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student’s responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student’s faculty advisor and Department Head.
- See the “Undergraduate Graduation Requirements” in the catalog for additional graduation information.

**GENERAL EDUCATION REQUIREMENTS** (Minimum 15 semester hours) See the current catalog for a list of courses that fulfill the requirements below. If a course is on the general education list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the general education requirement.

Course No	Title	Sem.hrs	Grade	Term/Trns
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**Communication**(6 semester hours)

ENGL 111	English Composition	3	_____	_____
ENGL 112	English Composition	3	_____	_____

**-OR-**

ENGL 111	English Composition <b>and</b>	3	_____	_____
SPCH 101	Interpersonal Communication <b>or</b>	3	_____	_____
SPCH 102	Speechmaking	3	_____	_____

**Math: Minimum Math 107 Career Mathematics** (Minimum 3 semester hours)

_____	_____	3	_____	_____
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**Social Sciences, Natural Science, Fine Arts, or Humanities or Selected Applied Studies Courses\*** (Minimum 6 semester hours)

_____	_____	3	_____	_____
_____	_____	3	_____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
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**OTHER LOWER DIVISION REQUIREMENTS**

**Wellness** (2 semester hours)

KINE 100	Health and Wellness	1	_____	_____
KINA 1	_____	1	_____	_____

**ASSOCIATE OF APPLIED SCIENCE: MANUFACTURING TECHNOLOGY – WELDING TECHNOLOGY COURSE REQUIREMENTS**

(47 semester hours)

**Core Classes**

CADT101	Introduction to Computers	1	_____	_____
CADT108	Computer Aided Design	3	_____	_____
MAMT105	Print Reading/Sketching	2	_____	_____
MAMT101	Intro to Manufacturing	2	_____	_____
MAMT115	Intro to Machine Shop	3	_____	_____
MAMT150	Intro to Numerical Control	1	_____	_____
MAMT160	Properties of Materials	2	_____	_____
TSTG 150	Fluid Power	3	_____	_____
TSTG 220	Industry Employment Practices	3	_____	_____

**OR**

TSTG 120	Industrial Safety Practices	3	_____	_____
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WELD110	Shielded Metal Arc Welding	3	_____	_____
WELD117	Oxy/Fuel & Plasma Cutting	3	_____	_____
WELD133	Metal Fabrication Methods	3	_____	_____
WELD144	Welding Business Operations	3	_____	_____
WELD211	GMAW/FCAW	3	_____	_____
WELD230	Gas Tungsten Arc Welding	3	_____	_____
WELD 240	PIPE Welding	3	_____	_____
WELD 270	Practical Applications	3	_____	_____

**Electives:**(3 semester hours)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**TOTAL:**64 Semester Hours

\*Please see your advisor for requirements specific to this program.

Students in Welding may be required to purchase approximately \$500.00 in tools and personal safety welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields. CMU / WCCC has lockers with required tools available for rent at \$ 50.00 per semester.

## SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN MANUFACTURING TECHNOLOGY – EMPHASIS IN WELDING TECHNOLOGY

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with the assigned advisor and check the 2 year course matrix on the Colorado Mesa website for course availability.

<b>First Semester</b>	<b>Hours</b>	<b>Second Semester</b>	<b>Hours</b>
CADT101	1	CADT 108	3
MAMT 101	2	MAMT 160	2
MAMT 105	2	MATH 107	3
WELD 110	3	MATH 113	3
WELD 117	3	WELD 211	3
WELD 133	3	WELD 230	3
WELD 144	3	WELD 240	3
	17		17

<b>Third Semester</b>	<b>Hours</b>	<b>Fourth Semester</b>	<b>Hours</b>
ENGL 111	3	ENGL 112	3
KINE 100	1	TSTG 220	3
KINA 1xx	1	TSTG120	3
MAMT 115	3	WELD 270	3
MAMT 150	1	General Education Soc/Beh Sci., Humanities, Speech	3
TSTG150	3	Electives	3
General Education Soc/Beh Sci., Humanities, Speech	3		15
	15		

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### POLICIES:

1. It is your responsibility to determine whether you have met the requirements for your degree. Please see the catalog for a complete list of graduation requirements.
2. You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.**
4. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature.
5. Finally, the WCCC Director or the department administrative assistant will take the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
6. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
7. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).