2015-2016 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 in 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.

_____ 20_____
Signature of Advisor Date

_____ 20_____
Signature of WCCC Director Date

_____ 20_____
Signature of Registrar Date

DEGREE REQUIREMENTS:

- 65 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.

ESSENTIAL LEARNING 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 Essential Learning 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 Essential Learning requirement. The Essential Learning capstone course and co-requisite Essential Speech course (required for bachelor's degrees) cannot be used as options for the below requirements.

Course No	Title	Sem.hrs	Grade	Term/Trns
Communication(6 semester hours)				
ENGL 111	English Composition	3	_____	_____
ENGL 112	English Composition	3	_____	_____
-OR-				
ENGL 111	English Composition **and**	3	_____	_____
SPCH 101	Interpersonal Communication **or**	3	_____	_____
SPCH 102	Speechmaking	3	_____	_____
Math: Minimum Math 107 Career Mathematics (Minimum 3 semester hours)				
_____	____ _____	3	_____	_____
Social Sciences, Natural Science, Fine Arts, or Humanities (Minimum 6 semester hours)				
_____	____ _____	3	_____	_____
_____	____ _____	3	_____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
WELLNESS REQUIREMENT (2 semester hours)				
KINE 100	Health and Wellness	1	_____	_____
KINA 1____	_____	1	_____	_____

ASSOCIATE OF APPLIED SCIENCE: MANUFACTURING TECHNOLOGY – WELDING TECHNOLOGY COURSE REQUIREMENTS
(48 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	_____	_____
MAMT260	Properties of Materials	3	_____	_____
TSTG 150	Fluid Power	3	_____	_____
TSTG 220	Industry Employment Practices	3	_____	_____
OR				
TSTG 120	Industrial Safety Practices	3	_____	_____
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:65 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.

First Semester		Hours
CADT101	Introduction to Computers	1
MAMT 101	Intro to Manufacturing	2
MAMT 105	Print Reading/Sketching	2
WELD 110	Shielded Metal Arc Welding	3
WELD 117	Oxy/Fuel and Plasma Arc Cutting	3
WELD 133	Metal Fabrication Methods	3
WELD 144	Welding Business Operations	3
		17

Second Semester		Hours
CADT 108	Computer Aided Design- Mechanical	3
MAMT 260	Properties of Materials	3
MATH 107	Career Mathematics	3
WELD 211	GMAW/FCAW	3
WELD 230	Gas TungstenArcWelding	3
WELD 240	Pipe Welding	3
		18

Third Semester		Hours
ENGL 111	English Composition	3
KINE 100	Health and Wellness	1
KINA 1xx	Activity	1
MAMT 115	Intro to Machine Shop	3
MAMT 150	Introduction to Numerical Control	1
TSTG150	Fluid Power	3
Social Sciences, Natural Science, Fine Arts, or Humanities		3
		15

Fourth Semester		Hours
ENGL 112	English Composition or	
SPCH 101/102		3
TSTG 220	Industry Employment Practices **OR**	
TSTG120	Industrial Safety Practice	3
WELD 270	Practical Applications	3
Social Sciences, Natural Science, Fine Arts, or Humanities		3
Electives		3
		15

POLICIES:

1. Please see the catalog for a complete list of graduation requirements.
2. 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.** 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. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature. Finally, the Department Head will submit the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
4. 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.
5. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).