2015-2016 PETITION/PROGRAM SHEET
Degree: Associate of Applied Science
Major: Manufacturing Technology
Emphasis: Machining Technology

About This Degree . . .

The Associate of Applied Science with the Manufacturing Technology major offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. In the Machining Technology emphasis students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer-aided machinery with CAD/CAM software, and computer-numerical controlled (CNC) machines. Students also develop the skills that enable them to read blueprints, apply appropriate mathematical concepts, and understand the properties of metal and polymers. This course of study is designed to meet competency-based standards set by the manufacturing industry. With this degree, students will be qualified for the following employment opportunities: entry-level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

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. Use written and oral communication skills needed for entry level employment in the manufacturing industry. (Communication Fluency)
2. Apply mathematical concepts to perform machining tasks. (Quantitative Fluency)
3. Distinguish between tolerances and dimensions, as used in the machining industry. (Critical Thinking)
4. Summarize business practices, principles and application of associated technical skill in the machining in industry. (Specialized Knowledge)
5. Apply the necessary machining skill sets to perform specified manufacturing processes. (Applied Learning)
6. Determine ethical and civil responsibility necessary for employees in the machining 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 Department Head Date

_____ 20_____
Signature of Registrar Date

DEGREE REQUIREMENTS:

- 61 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.
- When filling out the program sheet a course can be used only once.
- 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		
Mathematics Minimum Math 107 Career Mathematics (Minimum 3 semester hours)				
		3		

Course No	Title	Sem.hrs	Grade	Term/Trns
Social Sciences, Natural Science, Fine Arts or Humanities (Minimum 6 semester hours)				
		3		
		3		
WELLNESS REQUIREMENT (2 semester hours)				
KINE 100	Health and Wellness	1		
KINA 1		1		

ASSOCIATE OF APPLIED SCIENCE: MANUFACTURING TECHNOLOGY MACHINING TECHNOLOGY COURSE REQUIREMENTS
(44 semester hours)

Core Classes				
ENGR125	Computer-aided Design & Fab.	3		
OR				
CADT 109	CAD- Mechanical Advanced	3		
MAMT101	Introduction to Manufacturing	2		
MAMT105	Print Reading/Sketching	2		
MAMT106	Geometric Tolerancing	2		
MAMT115	Introduction to Machine Shop	3		
MAMT120	Machine Technology I	4		
MAMT125	Machine Technology II	4		
MAMT230	Machine Technology III	4		
MAMT240	Job Shop Machining II	3		
OR				
MAMT170	Practical Applications	3		
MAMT148	CNC Applications	3		
MAMT251	CNC Machining I	3		
MAMT255	CNC Machining II	3		
MAMT260	Properties of Materials	3		
MAMT207	Intro to Statistical Processes	2		
Restrictive **Electives: (**3 semester hours)				
WELD151	Introduction to Welding	3		
TSTG 220	Industry Employment Practices	3		
CADT 108	CAD- Mechanical	3		
ENGR 105	Basic Engin. Drawing	3		
		3		

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

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN MANUFACTURING TECHNOLOGY, EMPHASIS IN MACHINING 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**
MAMT 105	Print Reading/Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 120	Machine Technology I	4
MAMT 125	Machine Technology II	4
MAMT 148	CNC Applications	3
		18

Second Semester		**Hours**
MATH 107	Career Math 3	
MAMT 230	Machine Technology III	4
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MAMT 240	Job Shop Machining II **or**	
MAMT 170	Practical Application	3
		16

Third Semester		**Hours**
ENGL 111	English Composition	3
Social Sciences, Natural Science, Fine Arts or Humanities		6
KINE 100	Health & Wellness	1
MAMT 101	Introduction to Manufacturing	2
MAMT 207	Intro to Statistical Process Control	2
		14

Fourth Semester		**Hours**
ENGR125	Computer-aided Drafting & Fabrication or	
CADT 109	CAD- Mechanical Advanced	3
ENGL 112	English Composition	3
MAMT 260	Properties of Materials	3
KINA 1__	Activity	1
Restrictive Electives		3
		13

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).