2016-2017 PETITION/PROGRAM SHEET
Degree: Associate of Applied Science
Major: Manufacturing Technology
Emphasis: Computer Aided Design Technology

About This Emphasis . . .
Through the use of freehand sketching and Computer Aided Drafting (CAD), the student will learn the techniques of basic drafting principles and methods used in today's engineering fields. Drafting concepts and the processes of orthographic projection, pictorial drawing, dimensioning, and geometric construction will be explored by hand and with CAD software and equipment. The majority of the student's work will be completed on the computer. A project in the area of the student's interest will tie the course to real world concepts.

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 principles of grammar and vocabulary in the documentation required to perform the duties of a CAD technician (interviewing clients and communicating with constituents). (Communication Fluency)
2. Apply mathematical concepts and practices that are required to properly perform calculation for design. (Quantitative Fluency)
3. Interview clients, to help decide on materials, size and design, based on client's needs and students' knowledge of the industry. (Critical thinking)
4. Demonstrate mastery of terminology in the Engineering, Architectural, Civil and Technical drafting industry. (Specialized Knowledge)
5. Generate substantially error-free plans that define the duties of a CAD technician. Produce industry standard drawings in various platforms (engineering, Architectural, Civil and Technical). (Applied Learning)
6. Demonstrate personal and professional ethical behavior as applied to the Computer Aided Design 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:

- 71 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 "Requirements for Undergraduate Degrees and Certificates" 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)

MATH 113	College Algebra**	4*	_____	_____

*3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

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 COURSE REQUIREMENTS
(54 semester hours)

Core Classes				
CADT 101	Introduction to Computers	1	_____	_____
CONC 104	Architectural/Civil Print Reading	2	_____	_____
CADT 106	Computer Aided Design	3	_____	_____
CADT 107	Advanced Computer Aided Design	3	_____	_____
CADT 108	CAD – Mechanical	3	_____	_____
CADT 109	CAD – Mechanical Advanced	3	_____	_____
CADT 110	CAD Application	4	_____	_____
CADT 210	Project	3	_____	_____
CADT 130	CAD – Civil	3	_____	_____
CADT 135	CAD – Civil II	3	_____	_____
CADT 140	CAD – Architectural Theory	2	_____	_____
CADT 141	Structural Materials	3	_____	_____
CADT 142	CAD – Residential Architecture	3	_____	_____
CADT 143	CAD – Commercial Architecture	3	_____	_____
MAMT 101	Introduction to Manufacturing	2	_____	_____
MAMT 105	Print Reading/Sketching	2	_____	_____
MAMT 106	Geometric Tolerancing	2	_____	_____
MAMT 115	Introduction to Machine Shop	3	_____	_____
OR				
WELD 151	Introduction to Welding	3	_____	_____

Electives (6 semester hours-may need advisors approval)

*MATH 113	College Algebra	1	_____	_____	
_____	____	_____	____	_____	_____
_____	____	_____	____	_____	_____

**Required for this degree.
***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 COMPUTER AIDED DESIGN 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.

FRESHMAN YEAR

First Semester		Hours
MATH 113	College Algebra	4
CADT 101	Introduction to Computers	1
CONC 104	Architectural/Civil Print Reading	2
CADT 106	Computer Aided Design	3
CADT 108	CAD – Mechanical	3
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading/Sketching	2
MAMT 106	Geometric Tolerancing	2
		19

Second Semester		Hours
ENGL 111	English Composition	3
CADT 107	Advanced Computer Aided Design	3
CADT 109	CAD – Mechanical Advanced	3
MAMT 115	Introduction to Machine Shop **or**	
WELD 151	Introduction to Welding	3
Social Sciences, Natural Science, Fine Arts or Humanities		3
Elective (with advisor's approval)		3
		18

SOPHOMORE YEAR

Third Semester		Hours
ENGL 112	or SPCH 101 or SPCH 102	3
CADT 140	CAD – Architectural Theory	2
CADT 141	Structural Materials	3
CADT 142	CAD – Residential Architecture	3
CADT 130	CAD – Civil	3
Elective (with advisor's approval)		3
		17

Fourth Semester		Hours
CADT 110	CAD Application	4
CADT 210	Project	3
CADT 135	CADT Civil II	3
CADT 143	CAD Commercial Architecture	3
Social Sciences, Natural Science, Fine Arts or Humanities s		3
KINA	Activity	1
KINE 100	Health and Wellness	1
		18

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).