

2016-2017 PETITION/PROGRAM SHEET

Degree: Associate of Applied Science Major: Mechanical Engineering Technology

About This Major . . .

The objective of the Associate of Applied Science (AAS) in Mechanical Engineering Technology (MET) is to provide the knowledge necessary to aid in the design and realization of products and systems to meet the current and future needs of society. Completion of this applied engineering technology program provides graduates with the skills and knowledge for a successful transition to either a career as a mechanical engineering technician or to the Bachelor of Science program in Mechanical Engineering Technology.

The AAS in MET is designed for a student who is a doer or implementer - one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the operation and testing of mechanical systems. Laboratory courses are an integral component of the MET program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to building products and systems.

For more information on what you can do with this major, go to http://www.coloradomesa.edu/career/whatmajor.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 the knowledge, techniques, skills, and modern tools of engineering to engineering problems. (Critical Thinking/Applied Learning)
- 2. Apply knowledge of mathematics, science, and technology to engineering problems. (Quantitative Fluency)
- 3. Effectively use oral, written, and graphical communication skills to address both technical and non-technical audiences. (Communication Fluency)
- 4. Apply the ethical standards of the discipline to engineering problems. (Specialized Knowledge)

| NAME: | STUDENT ID #: | | | | |
|-----------------------------------|--|----|--|--|--|
| LOCAL ADDRESS AND PHONE NUMBER: _ | | | | | |
| | () | | | | |
| | , hereby certify that I have completed (or will the policies listed on the last page of this program sheet. I further except for the courses in which I am currently enrolled and the will complete these courses. | | | | |
| | | 20 | | | |
| Signature of Advisor | Date | | | | |
| | | 20 | | | |
| Signature of Department Head | Date | | | | |
| | | 20 | | | |
| Signature of Registrar | Date | | | | |

DEGREE REQUIREMENTS:

- 62 semester hours total (A minimum of 15 of the final 30 semester hours of credit at CMU).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade of "C" or higher must be achieved in achieved in coursework toward major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Program sheets are for advising purposes only. Because a program may have requirements specific to the degree, check with your advisor for additional guidelines, including prerequisites, grade point averages, grades, exit examinations, and other expectations. It is the student's responsibility to be aware of, and follow, all guidelines for the degree being pursued. Any exceptions or substitutions must be approved by the faculty advisor and/or Department Head. Courses related to teacher licensure must also be approved by the Teacher Education Dept.
- When filling out the program sheet a course can be used only once.
- See "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 corequisite Essential Speech course (required for bachelor's degrees) cannot be used as options for the below requirements.

| Course No Title | Sem.hrs | Grade Term | | | |
|--|---------|------------|--|--|--|
| Communication (6 semester hours) ENGL 111 English Composition ENGL 112 English Composition | 3 3 | | | | |
| Math (Minimum 3 semester hours) MATH 119 Pre-Calculus Mathematics | 5* | | | | |
| Social and Behavioral Sciences (3 semester hours) | | | | | |
| SOCI 120 Technology and Society | 3 _ | | | | |
| History (3 semester hours) | _ 3 | | | | |

| Course No Title | | Sem.hrs | Grade Term | |
|------------------------------|-------------------------------|-----------|-------------------|---|
| WELLNESS | REQUIREMENT (2 semeste | er hours) | | |
| | Health and Wellness | 1 | | |
| KINA 1 | | 1 | | |
| | | _ | | |
| | | | | |
| ASSOCIATE | OF APPLIED SCIENCE II | N MECH | ANICAL | |
| | ING TECHNOLOGY: COU | KSE KE(| <u>JUIREMENTS</u> | : |
| (45 semester l | iours) | | | |
| CHEM 121 | General Chemistry | 4 | | |
| CHEM 121L | General Chemistry Lab | 1 | | |
| Or | , | _ | | |
| CHEM 131 | General Chemistry | 4 | | |
| CHEM 131L | General Chemistry Lab | 1 | | |
| CHEM 191E | General Chemistry Eas | • | | |
| CSCI 130 | Intro to Engr. Computing | 3 | | |
| | | | | |
| PHYS 111 | General Physics | 4 | | |
| PHYS 111L | General Physics Lab | 1 | | |
| Or | - | | | |
| PHYS 131 | Fundamental Mechanics | 4 | | |
| PHYS 131L | Fundamental Mechanics Lab | 1 | | |
| | | | | |
| ENGR 101 | Introduction to Engineering | 1 | | |
| ENGR 125 | CAD and Fabrication | 3 | | |
| ENGR 140 | First-Year Engr. Projects | 3 | | |
| ENGR 261 | Statics and Structures | 3 | | |
| | | | | |
| MAMT 115 | Intro to Machine Shop | 3 | | |
| MAMT 251 | CNC Machining I | 3 | | |
| MAMT 255 | CNC Machining II | 3 | | |
| | or to machining in | | | |
| MATH 135 | Engineering Calculus I | 4 | | |
| MATH 136 | Engineering Calculus II | 4 | | |
| | | | | |
| WELD 151 | Introduction to Welding | 3 | | |
| | | | | |
| ELECTIVES (2 semester hours) | | | | |
| MATH 119 | Pre-Calculus Mathematics | 2* | | |

^{*5} credit course -3 credits apply to the Essential Learning requirement and 2 credits apply to Electives

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN MECHANICAL ENGINEERING 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

| Fall Semester | | Hours | Spring Semes | ter | Hours |
|-------------------|--------------------------|----------|---------------------|---------------------------|----------|
| ENGR 101 | Intro to Engineering | 1 | MATH 135 | Engineering Calculus I | 4 |
| MATH 119 | Pre-Calculus Mathematics | 5 | ENGL 112 | English Composition | 3 |
| ENGL 111 | English Composition | 3 | ENGR 140 | First-Year Engr. Projects | 3 |
| ENGR 125 | CAD and Fabrication | 3 | MAMT 115 | Intro to Machine Shop | 3 |
| KINE 100 | Health and Wellness | 1 | WELD 151 | Introduction to Welding | <u>3</u> |
| Essential Learnin | ng History | <u>3</u> | | | 16 |
| | | 16 | | | |

SOPHOMORE YEAR

| Fall Semester | | <u>Hours</u> | Spring Semest | ter | Hours |
|--------------------------|-------------------------|--------------|-----------------|-------------------------|----------|
| MATH 136 | Engineering Calculus II | 4 | CSCI 130 | Intro to Engr Computing | 3 |
| PHYS 131 OR 111 | Fundamental Mechanics | 4 | MAMT 251 | CNC Machining I | 3 |
| PHYS 131L OR 111L | Fundamental Mech Lab | 1 | MAMT 255 | CNC Machining II | 3 |
| CHEM 121 OR 131 | General Chemistry | 4 | ENGR 261 | Statics and Structures | 3 |
| CHEM 121L OR 131 | LGeneral Chemistry Lab | <u>1</u> | KINA 1XX | Activity | 1 |
| | | 14 | SOCI 120 | Technology and Society | <u>3</u> |
| | | | | | 16 |

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).