

Curriculum Committee Proposal Summary

10/22/2015

Department: PES

Program Modification

Applied Mechanical Engineering: 3453

Degree Type: BS

Modified Program Name: Mechanical Engineering Technology

Modified Program Name: MET

Revision to program sheet: Yes No

Description of modification:

Change the name of the Bachelors of Science in Applied Mechanical Engineering to Mechanical Engineering Technology

Justification:

Mechanical Engineering Technology was originally the name of the program. The Accreditation Board for Engineering and Technology (ABET), our accrediting body, suggested the change in name with the idea that they would visit and accredit the program based on the newer name. ABET's board has not moved to allow such a name and as such will not schedule an accreditation visit. Due to the current policy, we are requesting the name change back to Mechanical Engineering Technology so an accrediting visit can be conducted during the fall of 2016.

The other program sheet changes were to use the course names as shown in the catalog.

Revision to SLOs: Yes No

Other changes: Yes No

As stated in the justification above, ABET will not accredit the program without a name change.

Discussions with affected departments:

NA

Proposed by: Scott Kessler

Director of Teacher Education Signature:

Expected Implementation:



20165-20176 PETITION/PROGRAM SHEET

Degree: Bachelor of Science

Major: ~~Applied Mechanical Engineering~~ Mechanical Engineering Technology

About This Major . . .

The objective of the ~~Applied Mechanical Engineering~~ Mechanical Engineering Technology Program is to provide the knowledge necessary to apply state-of-the-art techniques to design and build products and systems to meet the current and future needs of society. The Bachelor of Science Degree in ~~Applied Mechanical Engineering~~ Mechanical Engineering Technology is designed for a student who is doer or implementer - one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the solution of design problems and to the operation and testing of mechanical systems.

The ~~Applied Mechanical Engineering~~ Mechanical Engineering Technology graduate applies established procedures that use current state-of-the-art techniques to work with mechanical systems. Laboratory courses are an integral component of the ~~Applied Mechanical Engineering~~ Mechanical Engineering Technology program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to designing and building products and systems to meet the current and future needs of society. The employment of ~~AMEMETs~~ in manufacturing related areas should increase as the demand for improved machinery and machine tools grows and industrial machinery and processes become increasingly complex. Emerging technologies in biotechnology, and nanotechnology will create new job opportunities for ~~AMEMETs~~. In addition to job openings from growth, many openings should result from the need to replace workers who leave the labor force. For more information on what you can do with this major, go to <http://www.coloradomesa.edu/career/whatmajor.html>

All CMU baccalaureate 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: _____

_____ () _____

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 Department Head Date _____ 20____

Signature of Registrar Date _____ 20____

DEGREE REQUIREMENTS:

- 126 semester hours total (Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher).
- 40 upper division credits (A minimum of 15 taken within the major at CMU).
- 2.00 cumulative GPA or higher in all CMU coursework.
- 2.00 cumulative GPA or higher in coursework toward the major content area.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- When filling out the program sheet a course can be used only once.
- 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.
- Essential Learning Capstone should be completed between 45 and 75 hours.
- See the “Undergraduate Graduation Requirements” in the catalog for additional graduation information.
- A student must receive a “C” or higher in any class that is a pre-requisite for a subsequent class.

ESSENTIAL LEARNING REQUIREMENTS (31 semester hours)
 See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Course No	Title	Sem.hrs	Grade	Term
English (6 semester hours, must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.)				
ENGL 111	English Composition	3	_____	_____
ENGL 112	English Composition	3	_____	_____

Math (3 semester hours, must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.)
 MATH 135 Engineering Calculus I 4* _____
 *3 credits apply to the Essential Learning requirements and 1 credit applies to Foundation Courses

Humanities (3 semester hours)

Social and Behavioral Sciences (6 semester hours)
 SOCI 120 Technology and Society 3 _____

Course No	Title	Sem.hrs	Grade	Term/Trns
Natural Sciences (7 semester hours, one course must include a lab)				
PHYS 131	_____	4	_____	_____
PHYS 131L	_____	1	_____	_____
CHEM 131	_____	4*	_____	_____

*2 credits apply to the Essential Learning requirements and 2 credits apply to Foundation Courses

History (3 semester hours)
 HIST _____

Fine Arts (3 semester hours)

WELLNESS REQUIREMENT (2 semester hours)

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

ESSENTIAL LEARNING CAPSTONE (4 semester hours)

ESSL 290	Maverick Milestone (see English & math pre-reqs)	3	_____	_____
ESSL 200	Essential Speech (co-requisite)	1	_____	_____

FOUNDATION COURSES (13 semester hours) Must complete with a “C” or higher.

CHEM 131	_____	4*	_____	_____
*2 credits apply to the Essential Learning requirements and 2 credits apply to foundation courses				
CHEM 131L	_____	1	_____	_____
MAMT 102	Intro to Machine Shop	1	_____	_____
MATH 135	Engineering Calculus I	4*	_____	_____
*3 credits apply to the Essential Learning requirements and 1 credit applies to foundation courses				
MATH 136	Engineering Calculus II	4	_____	_____
MAMT 105	Print Reading & Sketching	2	_____	_____
MAMT 106	Geometrical Dim & Tolerancing	2	_____	_____

APPLIED MECHANICAL ENGINEERING MECHANICAL ENGINEERING TECHNOLOGY MAJOR REQUIREMENTS (76 semester hours) **Must** pass all courses with a grade of “C” or higher.

Basic Engineering Courses (19 semester hours)

ENGR 101	Introduction to Engineering	1	_____	_____
ENGR 125	CAD and Fabrication	3	_____	_____
ENGR 140	First-Year Engr. Projects	3	_____	_____
ENGR 224	Materials Science	2	_____	_____
ENGR 224L	Materials Science Lab	1	_____	_____
ENGR 225	Intro to Manufacturing	3	_____	_____
ENGR 261	Statics and Structures	3	_____	_____
ENGR 263	Mechanics of Solids	3	_____	_____

AMEMET Courses (36 semester hours)

ENGR 305	Engr Econ & Ethics	2	_____	_____
ENGR 312	Engr Thermodynamics	3	_____	_____
ENGR 317	Fund of Cir and Elect	3	_____	_____
ENGR 321	Fluid Mechanics	3	_____	_____
ENGR 325	Component Design	3	_____	_____
ENGR 343	Dynamics	3	_____	_____
ENGR 345	Engr Integration I	3	_____	_____
ENGR 385	Engr Integration II	3	_____	_____
ENGR 401	Professionalism Seminar	1	_____	_____

ENGR 427	Measurements Lab	2	_____	_____
ENGR 435	Industrial Controls	3	_____	_____
ENGR 445	METAME Design Proj I	3	_____	_____
ENGR 446	Writing for Design Proj	1	_____	_____
ENGR 485	METAME Design Proj II	3	_____	_____

Other Required Courses (9 semester hours)

CSCI 130	Intro to Engineering Computing	3	_____	_____
ENGL 425	Scientific Writing	3	_____	_____
STAT 305	Engr Statistics & QC	3	_____	_____

~~Applied Mechanical Engineering~~**Mechanical Engineering Technology Options** (12 semester hours, including upper division technical electives as necessary) Students complete either the Manufacturing Option or the Energy & Power Option

Manufacturing Option (12 semester hours)

ENGR 425	Advanced Manufacturing	3	_____	_____
	Manufacturing Elective	3	_____	_____
	Manufacturing Elective	3	_____	_____
	General Tech Elective	3	_____	_____

Energy & Power Option (12 semester hours)

ENGR 336	Heat & Power	3	_____	_____
ENGR 436	Fluid Power Systems	3	_____	_____
ENGR 460	Energy Systems	3	_____	_____
ENGR 465	Electric Power Systems	3	_____	_____

SUGGESTED COURSE SEQUENCING FOR A MAJOR IN ~~APPLIED MECHANICAL ENGINEERING~~ 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 Semester		Hours
ENGR 101	Intro to Engineering	1	MATH 136	Engineering Calculus II	4
MATH 135	Engineering Calculus I	4	ENGL 112	English Composition	3
ENGL 111	English Composition	3	ENGR 140	First-Year Engr. Projects	3
ENGR 125	CAD and Fabrication	3	MAMT 102	Intro to Machine Shop	1
KINE 100	Health and Wellness	1	PHYS 131	Fundamental Mechanics	4
MAMT 105	Print Reading & Sketching	2	PHYS 131L	Fundamental Mechanics Lab	<u>1</u>
MAMT 106	Geometric Dim & Tolerancing	<u>2</u>			16
		16			

SOPHOMORE YEAR

Fall Semester		Hours	Spring Semester		Hours
CHEM 131	General Chemistry	4	SOCI 120	Technology and Society	3
CHEM 131L	General Chemistry Lab	1	ENGL 425	Scientific Writing	3
CSCI 130	Intro to Engineering Computing	3	ENGR 224	Materials Science	2
ENGR 261	Statics and Structures	3	ENGR 224L	Materials Science Lab	1
KINA 1	Activity	1	ENGR 263	Mechanics of Solids	3
ESSL	Humanities	<u>3</u>	ESSL 290	Maverick Milestone	3
		15	ESSL 200	Essential Speech	<u>1</u>
					16

JUNIOR YEAR

Fall Semester		Hours	Spring Semester		Hours
ENGR 225	Intro to Manufacturing	3	ENGR 317	Fundamentals of Circuits & Electronics	3
ENGR 305	Engineering Economics & Ethics	2	ENGR 325	Component Design	3
ENGR 312	Engineering Thermodynamics	3	ENGR 343	Dynamics	3
ENGR 321	Fluid Mechanics	3	ENGR 385	Engineering Integration Project II	3
STAT 305	Engineering Statistics & Quality Control	3		Option Credits	<u>3</u>
ENGR 345	Engineering Integration Project I	<u>3</u>			15
		17			

SENIOR YEAR

Fall Semester		Hours	Spring Semester		Hours
ENGR 401	Professionalism Seminar	1	ENGR 435	Industrial Controls	3
ENGR 427	Measurements Lab	2	ENGR 446	Writing for Design Projects	1
ENGR 445	MET Design Senior Project <u>I1</u>	3	ENGR 485	MET Design Senior Project <u>II2</u>	3
ESSL	History	3	ESSL	Fine Arts	3
ESSL	Social Science	3		Option Credits	<u>6</u>
	Option Credits	<u>3</u>			16
		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: During your senior year, you will be required to take a capstone exit assessment/project (e.g., Major Field Achievement Test).

Department: WCCC

Program Modification

Admin Office Tech-Administrative Professional: 1395

Degree Type: AAS

Revision to program sheet: Yes No

Description of modification:

Course sequencing for OFAD 120 and OFAD 221. Move OFAD 120 to the Third Semester and move OFAD 221 to the first semester.

Justification:

Scheduling conflict between two required classes. OFAD 221 and MGDA 111 are both currently recommended for the third semester and both classes meet during the same days and times.

Revision to SLOs: Yes No

Other changes: Yes No

Discussions with affected departments:

Graphic Design. Met with Dan McClintock Monday, August 24, 2015. He approved this suggested change.

Proposed by: Alane Wooster

Director of Teacher Education Signature:

Expected Implementation:



~~2015-2016~~2016-2017 PETITION/PROGRAM SHEET

Degree: Associate of Applied Science
Major: Administrative Office Technology
Emphasis: Administrative Professional

About This Emphasis . . .

This program prepares students to be effective, efficient office professionals. Students develop skills in office procedures, word processing, grammar, records management, oral presentations, information systems, current software programs, human relations and communications. The administrative professional curriculum prepares the student to be effective support staff in business, government or non-profit organizations. Students learn document preparation, records management, bookkeeping, office procedures, office software, and basic research.

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. Students will have the ability to create professional business documents per industry standards. (Communication Fluency)
2. Students will have the ability to produce professional financial documents per industry standards. (Quantitative Fluency)
3. Students will have the ability to provide excellent internal and external customer service. (Applied Learning)
4. Students will have the ability to use business software applications proficiently. (Critical Thinking)
5. Students will have the ability to be effective, efficient, entry level office professionals. (Applied Learning)
6. Students will appreciate the significance of trustworthiness, confidentiality, dependability, self-motivation, and attitude. (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 Department Head Date _____ 20____

Signature of Registrar Date _____ 20____

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.
- 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: MATH 107 or higher (Minimum 3 semester hours)				
_____	_____	3	_____	_____

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

ASSOCIATE OF APPLIED SCIENCE: ADMINISTRATIVE OFFICE TECHNOLOGY – ADMINISTRATIVE PROFESSIONAL COURSE REQUIREMENTS (47semester hours)

Core Classes				
BUGB 211	Business Communications	3	_____	_____
OFAD 221	Voice Recognition and Business Editing	3	_____	_____
OFAD 101	Office Bookkeeping	3	_____	_____
OFAD 105	Ten Key	2	_____	_____
OFAD 153	Word Processing	3	_____	_____
OFAD 206	Computerized Bookkeeping	3	_____	_____
OFAD 269	Complete PC Database	3	_____	_____
OFAD 201	Office Procedures	3	_____	_____
OFAD 202	Records Management	3	_____	_____
OFAD125	Multimedia and Web Editing	3	_____	_____
OFAD 291	Service Learning	3	_____	_____
OFAD 208	Spreadsheets	3	_____	_____
OFAD 267	Presentation, Publishing & Desktop Management Software	3	_____	_____
OFAD 120	Internet and Social Networking	3	_____	_____
MGDA 111	Digital Image Editing	3	_____	_____
MGDA 112	Adobe Illustrator I	3	_____	_____

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

SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF APPLIED SCIENCE WITH A MAJOR IN ADMINISTRATIVE OFFICE TECHNOLOGY, EMPHASIS IN ADMINISTRATIVE PROFESSIONAL

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

<u>First Semester</u>	<u>Hours</u>	<u>Second Semester</u>	<u>Hours</u>
ENGL 111 English Composition	3	ENGL 112 English Composition OR SPCH 101/102	3
KINE 100 Health and Wellness	1	Social Sciences, Natural Science, Fine Arts or Humanities *	3
OFAD 101 Office Bookkeeping	3	MATH 107 Career Mathematics	3
OFAD 153 Word Processing	3	OFAD 206 Computerized Bookkeeping	3
<u>OFAD 221 Voice Recognition and Business Editing</u>	<u>3</u>	OFAD 125 Multimedia and Web Editing	<u>3</u>
OFAD 120 Internet and Social Networking	3		15
Social Sciences, Natural Science, Fine Arts or Humanities *	<u>3</u>		
	16		

SOPHOMORE YEAR

<u>Third Semester</u>	<u>Hours</u>	<u>Fourth Semester</u>	<u>Hours</u>
OFAD 202 Records Management	3	OFAD 201 Office Procedures	3
OFAD 267 Presentation, Publishing & Desk Top Management Software	3	BUGB 211 Business Communications	3
OFAD 208 Spreadsheets	3	KINA Activity	1
OFAD 221 Voice Recognition and Business Editing	3	OFAD 269 Complete PC Database	3
MGDA 111 Adobe Photoshop I	3	OFAD 291 Service Learning	3
OFAD 105 Ten Key	2	MGDA 112 Adobe Illustrator I	<u>3</u>
<u>OFAD 120 Internet and Social Networking</u>	<u>3</u>		16
	17		

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).