

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: EDMMS PROPOSED EFFECTIVE SEMESTER: Spring 2018 COLLEGE: CEAS

PROPOSED IMPROVEMENTS

Academic Program

- ☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate
☐ New minor
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Deletion ☐ Transfer
☒ Other (explain**)

Substantive Course Changes

- ☐ New course
☐ Pre or Co-requisites
☐ Deletion (required by others)
☐ Course #, different level
☐ Credit hours
☐ Enrollment restriction
☐ Course-level restriction
☐ Prefix ☐ Title and description
 (attach current & proposed)
☐ General education (select one)
 Not Applicable
☐ Other (explain**)

Misc. Course Changes

- ☐ Title
☐ Description (attach current & proposed)
☐ Deletion (not required by others)
☐ Course #, same level
☐ Variable credit
☐ Credit/no credit
☐ Cross-listing
☐ COGE reapproval
☐ Other (explain**)

**** Other: Articulation with Muskegon Community College above the 60 hour WMU limit**

Title of degree, curriculum, major, minor, concentration, or certificate: **Manufacturing Engineering Technology**

Existing course prefix and #: Proposed course prefix and #: Credit hours:

Existing course title:

Proposed course title:

Existing course prerequisite & co-requisite(s):

Proposed course prerequisite(s)

If there are multiple prerequisites, connect with "and" or "or". To remove prerequisites, enter "none."

Proposed course co-requisite(s)

If there are multiple corequisites, they are always joined by "and."

Proposed course prerequisite(s) that can also be taken concurrently:

Is there a minimum grade for the prerequisites or corequisites?

The default grades are D for undergraduates and C for graduates.

Major/minor or classification restrictions:

List the Banner 4 character codes and whether they should be included or excluded.

For 5000 level prerequisites & corequisites: Do these apply to: (circle one) undergraduates graduates both

Specifications for University Schedule of Classes:

a. Course title (maximum of 30 spaces):

b. Multi-topic course: ☐ No ☐ Yes

c. Repeatable for credit: ☐ No ☐ Yes

d. Mandatory credit/no credit: ☐ No ☐ Yes

e. Type of class and contact hours per week (check type and indicate hours as appropriate)

1. ☐ Lecture

3. ☐ Lecture/lab/discussion

5. ☐ Independent study

2. ☐ Lab or discussion

4. ☐ Seminar or ☐ studio

6. ☐ Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director



Date 3/1/17

Chair, College Curriculum Committee

Date

Dean

Date:

Graduate Dean:

Date

Curriculum Manager: Return to dean ☐ Date

Forward to:

Date

Chair, COGE/ PEB / FS President

Date

FOR PROPOSALS REQUIRING GSC/USC REVIEW:

* ☐ Approve ☐ Disapprove

Chair, GSC/USC

Date

* ☐ Approve ☐ Disapprove

Provost

Date

1. Explain briefly and clearly the proposed improvement.

Muskegon Community College (MCC) currently has 78 hours of transferable coursework into the BS in Manufacturing Engineering Technology (MFT). We want all of these hours to become eligible for transfer to WMU, instead of just the currently allowed 68 hours. This means that 10 additional hours of engineering and technical coursework could be taken by Muskegon residents without having to travel to Kalamazoo to complete their degree. (Articulation matrix attached)

2. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.)

We make this request under MOA <http://www.wmich.edu/facultysenate/policy-moas/moa1507-transfer-students-60-credit-hour-final.pdf>.

WMU established a formal articulation with MCC over 20 years ago. In 2010 the two institutions signed a joint admission agreement. The MFT program is articulated all the way through the Muskegon Area Career and Technical Center (MACTC) Middle College Manufacturing program. The Engineering Design, Manufacturing, and Management Systems (EDMMS) Department is working to deliver the remaining 50 hours of 3000-4000 level courses in on-line, hybrid formats, or through the Grand Rapids Regional Center. This is being done to better serve those non-traditional college students who reside in Kent and Muskegon counties. The CEAS Advising office, EDMMS Department, MCC, and the WMU Muskegon Regional Center have all received requests to have more of the MFT Degree's coursework offered in the Muskegon area.

3. Effect on other colleges, departments or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

All of the proposed additional transfer coursework is coming from courses taught by the EDMMS and Industrial and Entrepreneurial Engineering (IEEEM) Departments. Both departments are chaired by Dr. Steven Butt.

4. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

This has no effect as it neither adds, subtracts, nor changes any required course for the program. All courses are currently articulated.

5. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students' time. If a required course will be offered during summer only, provide a rationale.

None. All of the courses are currently accepted by WMU as transfer credit.

6. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

The goal for this proposed change is to improve the transfer pipeline for MCC by 20 students per year. MCC currently has 31 students enrolled in their Manufacturing Engineering Technology AAS degree, and another 94 in their ASA in Engineering. Furthermore, the MACTC has 24 students enrolled in the early Middle College Program directed into the MCC AAS degree.

7. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

The EDMMS and IEEEM Departments are barely able to adequately staff these courses for the current student population. Having additional coursework taken at MCC will enable the EDMMS Department to graduate more students without adding the additional staff to teach these 10 hours taken by additional transfer students from MCC.

8. General education criteria. For a general education course, indicate how this course will meet the criteria for the area or proficiency. (See the General Education Policy for descriptions of each area and proficiency and the criteria. Attach additional pages as necessary. Attach a syllabus if (a) proposing a new course, (b) requesting certification for baccalaureate-level writing, or (c) requesting reapproval of an existing course.)

N/A, all the General Education courses are taken during the first 68 hours for and so do not relate to the 10 hours under discussion here.

9. List the learning outcomes for the proposed course or the revised or proposed major, minor, or concentration. These are the outcomes that the department will use for future assessments of the course or program.

No change – The educational objectives of the Manufacturing Engineering Technology program are:

- 1. Plan, design, analyze, implement, and improve cost-effective manufacturing methods.**
- 2. Synthesize and use technical tools to monitor and control manufacturing processes to solve production problems effectively.**
- 3. Manage projects, people, and resources effectively.**
- 4. Communicate effectively in verbal, written, visual, and graphical forms.**
- 5. Pursue professional growth and interact effectively in work environments.**

10. Describe how this curriculum change is a response to assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.

Although this is not a response to assessment per se, this proposal is in response to requests from external constituents to the EDMMS Department. These include the CEAS Advising office, MCC and the WMU Muskegon Regional Center.

11. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

This change uses currently articulated courses and better serves our partner community college students.

Associate in Applied Science
Manufacturing Engineering Technology

(Prior to WMU Admission)

MACTC		MCC Equivalency & Classes		WMU Equivalency & Classes	
		ENG 101 or BCOM 101	3	IEE 1020 (Prof 1)	3
		ENG 102 or BCOM 102	3	ENGL 1100 (Dist Area I)	3
		MATH 112	4	MATH 1180 (Prof 3)	4
		MATH 161	4	MATH 1220 (Prof 4)	4
		PHYS 201 L&L	4	PHYS 1130 + 1140 (Area VI)	5
		PHYS 202 L&L	4	PHYS 1150+1160	5
CAD I	3	CAD 110	3	EDMM 1420	3
		CAD 210	3	EDMM 2460	3
		AMT 129	3	EDMM 1500 (Area VII)	3
		MET 201	3	EDMM 2560	3
MACH ENG TECH I	3	MT 101A	3	EDMM 2540	3
MACH ENG TECH I	3	MT 205	3	EDMM 3580	3
		MET 102	3	EDMM3520	3
		ELTC 150	3	EDMM 2001	3
		ANTH 103	3	(Area III)	3
		Pre-req's			
CAD I	3	CAD 100	3		
		ELTC 101 L&L	3		
		MATH 111	4		
		Approved Electives			
		MET 101	3	MFE 4300	3
		MT 240	3	EDMM Credit	3
Total College Credit Earned	12	Total for AAS	65	Total Transfer to B.S. in Manufacturing Engineering Technology	57
		Program classes to be taken at MCC during B.S.			
		CHEM 100 & 100aL&L (pre-req)	4		
		CHEM 101 & 101aL&L	4	*CHEM 1100+1110 (Area VI)	4
		ENG 225	3	ENGL 3200 (Area II)	3
		HE 106	3	HPHE 1110 (Area VIII)	2
		MATH 215	3	IEE 2610	3
				Currently transferable = 68 hours	69
		MET 204	3	EDMM 2500	3
		Choose two (2) of the following: HP 101, MT 225 or MT 230	6	EDMM Credit	3+3
		Total credits taken at MCC	91	Total potential transfer to B.S. in Manufacturing Engineering Technology	78
				EDMM 1220 (Area VII)	3
				(Dist. Area IV)	3
				CS 1021	1
				EDMM 2830	2
				EDMM 2810	4
				EDMM 3020 (Area V)	3
				EDMM 3480	3
				EDMM 3540	3

Associate in Applied Science

			EDMM 3260	3
			EDMM 3280	3
			EDMM 3200	3
			EDMM 3840	3
			EDMM 4540	3
			EDMM 4580	3
			EDMM 4910	2
			EDMM 4020	3
			EDMM 4570	2
			EDMM 4920	2
			EDMM 4930	1
			WMU credits	50
			Total hours in Manufacturing Engineering Technology B.S. degree	128