CEAS.24-041-MAE

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: MAE **PROPOSED EFFECTIVE SEMESTER:** Fall 2015 **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

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:** Change the course prefix for a prerequisite

Title of degree, curriculum, major, minor, concentration, or certificate: Mechanical Engineering
Existing course prefix and #: ME **Proposed course prefix and #:** ME **Credit hours:**
Existing course title: ME 3650 - Machine Design I
Proposed course title:

Existing course prerequisite & co-requisite(s): IME 1420, (ME 2615 or AE 2610), (ME 2500 or AE 2500), ME 2570, ME 2580.
Proposed course prerequisite(s) IME 1420 and (ME 2615 or AE 2610) and ME2500 and ME 2570 and ME 2580
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?
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
2. ☐ Lab or discussion
3. ☐ Lecture/lab/discussion
4. ☐ Seminar or ☐ studio
5. ☐ Independent study
6. ☐ Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director [signature] Date 10/7/2014

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

Revised May 2007. All previous forms are obsolete and should not be used.

1. Explain briefly and clearly the proposed improvement.

   The course will become an elective in the AE program instead of a required course.

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

   The course is to be an AE elective course. This gives AE students more options in the curriculum and the ability to pursue more depth in an AE discipline.

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.

   None Expected

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

   The elective course is drawn from existing AE courses. Thus, only minor changes in resources may be expected.

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.

   With this as an elective course instead of a required course, students will have an easier time meeting graduation requirements.

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 change provides more flexibility in the AE program and will positively affect market demand.

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 elective course is drawn from existing AE courses. Thus, only minor changes in resources may be expected.

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.)

   This course is not a general education course

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.

   The learning outcomes do not change

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.

    This is described in the program change documents.

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.

No effect

The current catalog description is:

ME 3650 - Machine Design I

The application of engineering principles to the fundamental design of machine mechanisms and basic systems.

Prerequisites & Corequisites: Prerequisites: IME 1420, (ME 2615 or AE 2610), (ME 2500 or AE 2500), ME 2570, ME 2580.

Credits: 3 hours

Notes: This course is approved as a writing-intensive course which may fulfill the baccalaureate-level writing requirement of the student's curriculum.

Lecture Hours - Laboratory Hours: (2 - 3)

When Offered: Fall, Spring, Summer I

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ME 3650 - Machine Design I

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