CEAS-14-IEEEM -090

## REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS DEPARTMENT: IEE & EM PROPOSED EFFECTIVE SEMESTER: Fall 2015 COLLEGE: CEAS PROPOSED IMPROVEMENTS Substantive Course Changes Misc. Course Changes Academic Program Title □ New degree\* ☐ New course Description (attach current & proposed) X Pre or Co-requisites New major\* Deletion (not required by others) Deletion (required by others) New curriculum\* Course #, different level Course #, same level New concentration\* Variable credit New certificate Credit hours Credit/no credit Enrollment restriction New minor Course-level restriction Cross-listing Revised major Prefix Title and description COGE reapproval Revised minor Admission requirements (attach current & proposed) Other (explain\*\*) Graduation requirements ☐ General education (select one) Not Applicable Deletion Transfer Other (explain\*\*) Other (explain\*\*) \*\* Other: Title of degree, curriculum, major, minor, concentration, or certificate: Existing course prefix and #: IEE 6080 Proposed course prefix and #: Credit hours: Existing course title Reliability Engineering Proposed course title: Existing course prerequisite & co-requisite(s): IME 2610 and IME 2620 or equivalent Proposed course prerequisite(s) IEE 2610 and IEE 2620 or IEE 2621 or equivalent. 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) 3. Lecture/lab/discussion 5. Independent study 1. Lecture 3 hours 2. Lab or discussion 4. ☐ Seminar or ☐ studio 6. Supervision or practicum CIP Code (Registrar's use only): Chair/Director Date Chair, College Curriculum Committee Date: Graduate Dean: Date Dean Curriculum Manager: Return to dean Date Date Forward to: Date Chair, COGE/ PEB / FS President 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 proposed amendment is to change the current course prerequisite to reflect the current courses offered in the department. The change follows previous program updates and changes in the departments in CEAS.

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

IME 2620 is being phased out of the IEE curriculum. Required prerequisite content is now contained within IEE2621.

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.

Prerequisites match what is being offered.

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

NA

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.

NA

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?

NA

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.)

NA

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 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.

NA

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.

NA

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 will have no effect on any articulation agreements.

## **OLD Catalog Copy**

## IEE 6080 - Reliability Engineering

The formulation of mathematical models for reliability allocation and redundancy. Topics include time dependent and time independent prediction measures for both maintained and non-maintained systems.

Prerequisites: Prerequisites: IME 2610 and IME 2620 or equivalent. (Recommended)

Credits: 3 hours

Notes: Open to Graduate Students Only.
Lecture Hours - Laboratory Hours: (3-0)

## **New Catalog Copy**

IEE 6080 - Reliability Engineering

The formulation of mathematical models for reliability allocation and redundancy. Topics include time dependent and time independent prediction measures for both maintained and non-maintained systems.

Prerequisites/Corequisites: Prerequisites: IEE 2610 and IEE 2620 or IEE 2621 or equivalent. (Recommended)

Credits: 3 hours

Notes: Open to Graduate Students Only. Lecture Hours - Laboratory Hours: (3-0)