CEAS-17-18 MAE

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: MAE **PROPOSED EFFECTIVE SEMESTER:** Spring 2018 **COLLEGE:** CEAS

PROPOSED IMPROVEMENTS

Academic Program	*Substantive Course Changes*	*Misc. Course Changes*
☐ New degree*	☐ New course	☐ Title
☐ New major*	☒ Pre or Co-requisites	☐ Description (attach current & proposed)
☐ New curriculum*	☐ Deletion (required by others)	☐ Deletion (not required by others)
☐ New concentration*	☐ Course #, different level	☐ Course #, same level
☐ New certificate	☐ Credit hours	☐ Variable credit
☐ New minor	☐ Enrollment restriction	☐ Credit/no credit
☐ Revised major	☐ Course-level restriction	☐ Cross-listing
☐ Revised minor	☐ Prefix ☐ Title and description (attach current & proposed)	☐ COGE reapproval
☐ Admission requirements		☐ Other (explain**)
☐ Graduation requirements	☐ General education (select one)	
☐ Deletion ☐ Transfer	Not Applicable	
☐ Other (explain**)		

** **Other:** e

Title of degree, curriculum, major, minor, concentration, or certificate: Mechanical Engineering
Existing course prefix and #: ME **Proposed course prefix and #:** ME5690 **Credit hours:**
Existing course title: ME5690- Principles of Fatigue and Fracture
Proposed course title:
Existing course prerequisite & co-requisite(s): ME 3650 with a grade of "B" or better, or instructor approval.
Proposed course prerequisite(s) (ME 3650 or AE4630) with a grade of "B" or better, or instructor approval.
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:
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 K. Naghshineh Date 2/22/17

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

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

1. Explain briefly and clearly the proposed improvement.

   A prerequisite (ME3650) is given an alternate (AE4630)

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

   AE Students are not required to take ME3650 and it is thus very difficult to use ME5690 as an elective. AE4630 also provides sufficient preparation for the material in ME5690.

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.

   No effect

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

   Alteration to the prerequisite makes ME5690 a viable elective course for the AE program and thus provides students more choices in their field of study.

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.

   No effect. Students, faculty, and advisors will need to be aware of the change. Students currently in the course sequence will be able to complete their sequence.

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?

   Improved accessibility to electives will improve the external perception of this program. Currently, ME5690 is listed as an elective but requires a difficult path. The proposed changes provide a reasonable path into ME5690 and thus will improve demand for the course and improve external perception of the program.

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.)

   No effect

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 proposal is the result of informal assessment initiated by the undergraduate adviser

The current catalog description is:
ME 5690 - Principles of Fatigue and Fracture

Basics of experimental techniques and modeling used in industry to study inelastic deformations, fatigue, and fracture of engineering materials and structures.

Prerequisites & Corequisites: Prerequisite: ME 3650 with a grade of "B" or better, or instructor approval.
Credits: 3 hours

Notes: Open to upperclass and graduate students.

The proposed catalog description is:
ME 5690 - Principles of Fatigue and Fracture

Basics of experimental techniques and modeling used in industry to study inelastic deformations, fatigue, and fracture of engineering materials and structures.

Prerequisites & Corequisites: Prerequisite: (ME 3650 or AE4630) with a grade of "B" or better, or instructor approval.
Credits: 3 hours

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