REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: MAE  PROPOSED EFFECTIVE SEMESTER: Fall 2018  COLLEGE: CEAS

PROPOSED IMPROVEMENTS

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<td>New degree*</td>
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<td>New major*</td>
<td>Description (attach current &amp; proposed)</td>
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<tr>
<td></td>
<td>New curriculum*</td>
<td>Deletion (not required by others)</td>
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<td></td>
<td>New concentration*</td>
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<td>Other (explain**)</td>
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** Other: Program pre-requisite changes: change the GPA required to be admitted to aerospace engineering

Title of degree, curriculum, major, minor, concentration, or certificate: BS in Aerospace engineering

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

Existing course title: N/A

Proposed course title: N/A

Existing course prerequisite & co-requisite(s): N/A
Proposed course prerequisite(s) N/A
Proposed course co-requisite(s) N/A
Proposed course prerequisite(s) that can also be taken concurrently: N/A

Is there a minimum grade for the prerequisites or corequisites? N/A

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
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: K. Naghedi  Date 2/7/17

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.

   To be admitted to the professional aerospace engineering curriculum (AEGJ), a student must complete all pre-engineering requirements with a GPA of 2.5 or better.

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

   The proposed change will ensure that students in the engineering curriculum have mastered pre-engineering material, so classes in the professional program can focus on the appropriate topics of their own nature, rather than substantial review of pre-requisite material.

   This change will bring the aerospace engineering program in line with requirements at peer institutions. For example, Oklahoma State University (a WMU peer institution with BSME and BSAE programs in the same department), requires a GPA of 3.0 for admission to the professional aerospace engineering program. Michigan State University requires a pre-engineering GPA of 3.1 and Grand Valley State University requires a pre-engineering GPA of 2.7 for admission to the mechanical engineering major (these universities do not have aerospace engineering programs).

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.

   Some students who do not meet the 2.5 GPA requirement may choose to declare majors in other departments and colleges at WMU.

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

   No anticipated effect on programs. The same GPA requirement change is proposed concurrently in the mechanical engineering program.

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. The proposed GPA requirement will apply to students who enter the pre-engineering program in Fall 2017 or later.

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?

   Students will benefit from courses in the professional engineering program that focus on advanced material, without the need to repeatedly review pre-engineering material.

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.)

   None

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.) No change

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
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 a result of informal assessment and input from instructors who teach professional engineering courses in the aerospace engineering program.

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 change*

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**The current catalog states:**

Admission

1. To be admitted to this engineering curriculum, a student must complete all pre-engineering requirements with grades of "C" or better. These requirements may be found in the beginning of the College of Engineering and Applied Sciences section.

2. Students seeking admission to this curriculum must submit an application following procedures established by the College of Engineering and Applied Sciences. Upper level transfer students may complete an application prior to their first semester of enrollment. Only students in good academic standing as defined by the University will be admitted to this curriculum.

**The proposed catalog language is:**

Admission

1. To be admitted to this engineering curriculum, a student must complete all pre-engineering requirements with grades of "C" or better and must have a grade point average of 2.5 or better in all pre-engineering requirements. These requirements may be found in the beginning of the College of Engineering and Applied Sciences section.

2. Students seeking admission to this curriculum must submit an application following procedures established by the College of Engineering and Applied Sciences. Upper level transfer students may complete an application prior to their first semester of enrollment. Only students in good academic standing as defined by the University will be admitted to this curriculum.