CEAS-14-CHP-05,

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: Chemical and Paper Engineering **PROPOSED EFFECTIVE SEMESTER:** Fall 2016
COLLEGE: Engineering and Applied Sciences

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:**

Title of degree, curriculum, major, minor, concentration, or certificate: Chemical Engineering

Existing course prefix and #: **Proposed course prefix and #:** CHEG 7300 **Credit hours:** 1 - 15 hrs

Existing course title:

Proposed course title: Doctoral Dissertation

Existing course prerequisite & co-requisite(s):
Proposed course prerequisite(s) Department and Graduate College 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?
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): Doctoral Dissertation
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 variable hours
6. ☐ Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director _____ Date 3/9/2015

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.

   This proposal creates a new course, CHEG 7300 Doctoral Dissertation to be used by students interested in specializing in chemical engineering under the CEAS PhD in Engineering and Applied Sciences (EAS), Engineering track.

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

   Students enrolled in the PhD in EAS, Engineering track, will be able to have Doctoral Dissertation credit hours on their transcripts with the CHEG prefix, which would best reflect the content of their dissertation research.

   Prerequisites will be a completed Permission to Elect form, approved by the department and the Graduate College.

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 outside the department.

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

   This course will be the dissertation research component for students interested in doctoral work in chemical engineering under the CEAS PhD in EAS. It will replace the ENGR 7300 course that students would currently elect. It will have no negative effect on the department's programs.

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.

   The first chemical engineering students are expected to enroll in the PhD in EAS, Engineering track, for the Fall 2015 semester. They could use ENGR 7300 as needed until the CHEG 7300 course is available. There will be no detrimental effect on a student's ability to meet graduation requirements or lengthen the timeline to degree.

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 estimated annual enrollment is 5 students. Graduate faculty expecting to work with chemical engineering students in the PhD in EAS, Engineering track, are making this request to have the CHEG course prefix to better show the students' area or topic of research on their transcripts.

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.)

   This is a dissertation-based course that will only involve faculty who sponsor PhD students. The students are essentially working independently on their research projects under the supervision of their dissertation advisors who only accept students if they have capacity and expertise. We are not expecting an impact on resources other than the normal positive impact associated with growth in research programs and research capabilities.

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.)

   Not applicable.

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.

   Each student will develop a dissertation manuscript at the conclusion of their PhD research project.

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.

    Response to requests from graduate faculty. This is a new dissertation course to support the PhD in EAS 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.

    Not applicable.

Catalog Copy

CHEG 7300 - Doctoral Dissertation

Please refer to the Graduate College section for course descriptions.

Prerequisites/Corequisites: Prerequisites: Department and Graduate College approval.

Credits: 1 to 15 hours

Restrictions Restricted to Doctoral students in the PhD in Engineering and Applied Sciences degree program, Engineering track, who are focusing their research on chemical engineering related topic(s).
Notes: May be repeated for credit. Graded on a Credit/No Credit basis. Open to Graduate students only.