REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: ECE  PROPOSED EFFECTIVE SEMESTER: Fall 2019  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
- 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: Master's in Computer Engineering, CENM

Existing course prefix and #: ECE 5950 Proposed course prefix and #: ECE 5525 Credit hours: 3

Existing course title: Advanced Topics in ECE: Digital Design

Proposed course title: Digital Design

Existing course prerequisite & co-requisite(s): none

Proposed course prerequisite(s) none
- 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? None
- 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:
- Course title (maximum of 39 spaces): Digital Design
- Multi-topic course:  No  Yes
- Repeatable for credit:  No  Yes
- Mandatory credit/no credit:  No  Yes
- Type of class and contact hours per week (check type and indicate hours as appropriate)
  - Lecture
  - Lab or discussion
  - Lecture/lab/discussion
  - Seminar or studio
  - Independent study
  - Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director

Chair, College Curriculum Committee

Dean

Curriculum Manager: Return to dean  Date

Forward to:

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.

After the initial offering of the ECE 5950 Digital Design class the course needs a regular course number.

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

The proposed number change will allow listing the course as a Foundation Course and also in the Graduate Catalog for the CENM program. ECE 5525 will also be cross-listed with the ECE 4525 course.

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.

Due to this change, along with the cross-listed ECE 4525 class, a number of positive effects are expected with respect to the Bachelor's and Master's programs in Computer Engineering, and also in the ECE PhD program.

By taking advantage of the cross-listed 5000-level course, outstanding Bachelor's students can take that option with the instructor's permission. For students in the Accelerated Bachelor's/Master's programs the cross-listed 5000-level course will allow them to enroll in a class that will count towards both their undergraduate and graduate degrees.

Both for unconditionally and conditionally admitted Master's students in Computer Engineering, the ECE 5525 course will provide for excellent preparation, as a prerequisite, towards 6000-level courses in Computer and Electrical Engineering, right from their first (fall) semester.

Those ECE PhD students who want to take the Digital Design subject as part of their Qualifying Exams enrolling in the ECE 5525 course will significantly increase their chances for passing the test. By taking the course they will also earn credits towards their graduation.

Those Master's students in Computer Science, and other engineering programs who would like to pursue a minor in Computer Engineering will have the opportunity to take the ECE 5525 course for credit.

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 effects.

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 current ECE 5950 class enrollment is four Computer Engineering Master's student. With the proposed regular course number along with its listing as a foundation course in the Graduate Catalog it is expected that the enrollment will gradually grow since the course covers important contemporary topics in the digital systems design area.

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.)

There is no effect on faculty resources. If the combined undergraduate/graduate class enrollment exceeds 20 students then a new lab section should be scheduled in the B-210 laboratory. The B-210 laboratory has sufficient resources to handle the increased class enrollment.
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.)

N/A.

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.

Since this is a new graduate course learning outcomes will be decided later for the 2019/20 AY.

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.

N/A.

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.

N/A.