Department Contact Information:

- Start Date: 19-SEP-2018
- College: A
- Department: CCE
- Initiator name: Osama Abudayyeh
- Department email: osama.abudayyeh@wmich.edu
- Proposed effective term: 2019-20

Does course need General Education approval?
- N

Will course be used in teacher education?
- N

If 5000 level course, prerequisites apply to:
- G
- Change Course CCE 6680
- Specific Course Change type selected: Description

1. Existing course prefix and number:
   CCE 6680

   A. Please choose Yes or No to indicate if this class is a Teacher Education class:
   No

   B. Please choose the applicable class level:
   Graduate

   C. Please choose Yes or No to indicate if this class is a General Education class:
   No

   D. Explain briefly and clearly the proposed improvement.
   This is a revision of the course description to closely align it with the structures component of our graduate programs (MS and PhD).

   E. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.) The current course contents in the description do not specifically address needed civil engineering applications. We are revising the description to focus specifically on civil engineering topics to align with the structures component of our graduate programs.

   F. List the student 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.
   - Understand fundamental theory and design philosophy of FRP composites materials and reinforced concrete elements strengthened with FRP;
   - Analyze and design reinforced concrete beams strengthened with externally bonded FRP composites;
   - Analyze and design reinforced concrete beams strengthened with Near Surface Mounting (NSM) FRP composites;
   - Gain experience with novel and state of the art strengthening techniques.

   G. Describe how this curriculum change is a response to student learning assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.
   Not applicable

   H. 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.
   None

   I. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.
   Better alignment with the structures component of the graduate civil engineering programs.

   J. Effects on enrolled students: are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation
K. 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? No change. This will be part of our MS and PhD offerings for those students interested in the structures area.

L. 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. This is an existing course.

M. With the change from General Education to WMU Essential Studies, this question is no longer used. For courses requesting approval as a WMU Essential Studies course, a syllabus identifying the student learning outcomes and an action plan for assessing the student learning outcomes must be attached in the Banner Workflow system. Not Applicable.

N. (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.

Department Curriculum Chair approver: Decker Hains
Date: 19-SEP-2018
Comment:
Chair approver: Osama Abudayeh
Date: 19-SEP-2018
Comment:

* Curriculum Committee Approval

- [ ] Approve
- [ ] Deny

Reason for denial:

Comment:

Enter Proposal number only if approved:

Proposal Number: [ ] Complete Save & Close Cancel

Attachments

[ ] Attach File