CEAS-14-CCE-056

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: CCE PROPOSED EFFECTIVE SEMESTER: Fall 2013 **COLLEGE:** Engineering & 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: Civil Engineering and Construction Engineering

Existing course prefix and #: CCE 6310 Proposed course prefix and #: Credit hours: 3

Existing course title: Design and Analysis of Construction Operations

Proposed course title:

Existing course prerequisite & co-requisite(s): CCE 4310 and CCE 4360, or instructor approval
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?
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):
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
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 [signature] Date 10/24/2014

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

1. Explain briefly and clearly the proposed improvement.

Remove CCE 4310 and CCE 4360 and the instructor approval from the pre-requisite list for CCE 6310: Design and Analysis of Construction Operations course.

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

CCE 4310 and CCE 4360 were required when this course was part of the MS in Construction Management (before replacing it with the MS in Civil Engineering). Now that our students come with civil engineering backgrounds (no more from other disciplines such as architecture or business, etc.) we no longer need to require these pre-requisites. This change will significantly reduce the work load of the department office coordinator and office associate as they have now to manually add our international students and students from outside WMU to this 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.

None.

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

None.

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.

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?

Not Applicable.

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 re-approval 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.

Not applicable.

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.

Not applicable.

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.

Current Catalog Description:

CCE 6310 - Design and Analysis of Construction Operations

The basic objective of the course will be to provide the students the knowledge to design and analyze construction operations and processes. The course is designed to provide a thorough understanding of the fundamentals of discrete event simulation methodologies. The CYCLic Operations NEtwork (CYCLONE) modeling methodology will be used as the basis for design and analysis of construction operations. Recent advancements in the area of simulation based project planning will also be provided. Issues related to object-oriented simulation, hierarchical and modular simulation, query based simulation, and web based simulation will also be highlighted in this course.

Prerequisites/Corequisites: Prerequisites: CCE 4310 and CCE 4360 or instructor approval.

Credits: 3 hours

New Catalog Description:

CCE 6310 - Design and Analysis of Construction Operations

The basic objective of the course will be to provide the students the knowledge to design and analyze construction operations and processes. The course is designed to provide a thorough understanding of the fundamentals of discrete event simulation methodologies. The CYCLic Operations NEtwork (CYCLONE) modeling methodology will be used as the basis for design and analysis of construction operations. Recent advancements in the area of simulation based project planning will also be provided. Issues related to object-oriented simulation, hierarchical and modular simulation, query based simulation, and web based simulation will also be highlighted in this course.

Prerequisites/Corequisites: Prerequisites:

Credits: 3 hours