

CE 168: PRESTRESSED CONCRETE DESIGN

In Workflow

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Approval Path

1. Sat, 12 Oct 2019 03:22:27 GMT
Julie Fogarty (fogarty): Approved for CE Committee Chair
2. Mon, 14 Oct 2019 18:00:57 GMT
Benjamin Fell (fellb): Approved for CE Chair
3. Fri, 25 Oct 2019 16:32:30 GMT
Troy Topping (troy.topping): Approved for ECS College Committee Chair
4. Fri, 25 Oct 2019 16:54:46 GMT
Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted: Sat, 12 Oct 2019 03:13:14 GMT

Viewing: CE 168 : Prestressed Concrete Design

Last edit: Sat, 12 Oct 2019 03:13:13 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

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Catalog Title:

Prestressed Concrete Design

Class Schedule Title:

Prestress Concrete Design

Academic Group: (College)

ECS - Engineering & Computer Science

Academic Organization: (Department)

Civil Engineering

Will this course be offered through the College of Continuing Education (CCE)?

No

Catalog Year Effective:

Fall 2020 (2020/2021 Catalog)

Subject Area: (prefix)

CE - Civil Engineering

Catalog Number: (course number)

168

Course ID: (For administrative use only.)

107371

Units:

3

In what term(s) will this course typically be offered?

Fall term only - even years

Does this course require a room for its final exam?

Yes, final exam requires a room

Does this course replace an existing experimental course?

No

This course complies with the credit hour policy:

Yes

Justification for course proposal:

Course description has been changed to better reflect the current topics covered in the class, based on the current state of practice.

Undergraduate CE courses are being renumbered to clarify course pre- and co-requisites and topic areas to help students plan their path to graduation. Prerequisites numbers (not courses) are being changed to reflect course number changes.

Through curriculum paper forms in 2016, each CE course had the "Not currently enrolled in CE XXX" as a prerequisite approved, so that students could not register for a "CE" prefix course if they were currently enrolled in it. This was to prevent students who thought they were failing from giving up or taking up a seat they didn't need if they passed the course. That prefix managed to make it into the online system for only one or two classes and is being put through curriculum workflow again.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)

Introduction to prestressed concrete design, focusing on bridges and buildings. Topics include: basic concepts; technology for fabrication and construction; material properties; flexural analysis and design for non-composite and composite beams; development of strands; prestress losses; camber and deflections; shear; and other topics. Design conforming to American Concrete Institute (ACI) 318 Building Code or AASHTO LRFD Bridge Design Specifications is emphasized, as appropriate.

Are one or more field trips required with this course?

Yes

Fee Course?

No

Is this course designated as Service Learning?

No

Does this course require safety training?

No

Does this course require personal protective equipment (PPE)?

No

Does this course have prerequisites?

Yes

Prerequisite:

CE 160 and CE 164. CE 164 may be taken concurrently. Not currently enrolled in CE 168.

Prerequisites Enforced at Registration?

Yes

Does this course have corequisites?

No

Graded:

Letter

Approval required for enrollment?

No Approval Required

Course Component(s) and Classification(s):

Discussion

Discussion Classification

CS#04 - Lecture /Recitation (K-factor=1 WTU per unit)

Discussion Units

3

Is this a paired course?

No

Is this course crosslisted?

No

Can this course be repeated for credit?

No

Can the course be taken for credit more than once during the same term?

No

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."

- 1) Analyze the mechanical behavior of prestressed concrete elements subjected to applied loads.
- 2) Design prestressed concrete structural elements to satisfy strength and serviceability requirements in accordance with ACI 318 or AASHTO LRFD Bridge Design Specifications.

Attach a list of the required/recommended course readings and activities:

CE168 (F19).docx

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.

Homework assignments and team project, if required (1-2)

Exams (1-2)

Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

University Learning Goals**Undergraduate Learning Goals:**

Competence in the disciplines
 Knowledge of human cultures and the physical and natural world
 Integrative learning
 Personal and social responsibility
 Intellectual and practical skills

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

GE Course and GE Goal(s)

Is this a General Education (GE) course or is it being considered for GE?

No

Key: 549