# **CE 164: REINFORCED CONCRETE DESIGN**

#### In Workflow

- 1. CE Committee Chair (fogarty@csus.edu)
- 2. CE Chair (fellb@csus.edu)
- 3. ECS College Committee Chair (troy.topping@csus.edu)
- 4. ECS Dean (kevan@csus.edu)
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- 6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
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- 9. Catalog Editor (212408496@csus.edu;%20torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
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- 11. PeopleSoft (PeopleSoft@csus.edu)

# **Approval Path**

1. Sat, 12 Oct 2019 03:22:22 GMT

Julie Fogarty (fogarty): Approved for CE Committee Chair

2. Mon, 14 Oct 2019 18:00:52 GMT

Benjamin Fell (fellb): Approved for CE Chair

3. Fri, 25 Oct 2019 16:32:17 GMT

Troy Topping (troy.topping): Approved for ECS College Committee Chair

4. Fri, 25 Oct 2019 16:54:22 GMT

Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted:Sat, 12 Oct 2019 03:12:31 GMT

# Viewing:CE 164: Reinforced Concrete Design Last edit:Sat, 12 Oct 2019 03:12:30 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

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#### **Catalog Title:**

Reinforced Concrete Design

#### Class Schedule Title:

Reinforced Concrete Desgn

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)** 

164

#### Course ID: (For administrative use only.)

107351

Units:

3

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

Fall, Spring

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 reinforced concrete design according to American Concrete Institute (ACI) 318 Building Code, including: design and safety concepts; loads and load path; structural systems; material properties; flexural analysis and design of reinforced concrete beams and one-way slabs; development of reinforcement; serviceability; shear; columns; and other topics.

Are one or more field trips required with this course?

No

Fee Course?

No

Is this course designated as Service Learning?

Νo

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

**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?

Nο

Is this course crosslisted?

Nο

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 reinforced concrete elements subjected to applied loads.
- 2) Design reinforced concrete structural elements to satisfy strength and serviceability requirements in accordance with ACI 318.

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

CE164 (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 project, if required (1-2)

Quizzes (1-2)

Exams (1-2)

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

Nο

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?

Nο

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 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: 546