CE 261A: FINITE ELEMENT ANALYSIS

In Workflow

1. CE Committee Chair (fogarty@csus.edu)
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10. Registrar's Office (wlindsey@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Thu, 17 Sep 2020 02:36:19 GMT
   Julie Fogarty (fogarty): Approved for CE Committee Chair
2. Thu, 17 Sep 2020 16:14:30 GMT
   Benjamin Fell (fellb): Approved for CE Chair
3. Thu, 01 Oct 2020 16:34:13 GMT
   Gareth Figgess (figgess): Approved for ECS College Committee Chair
4. Fri, 02 Oct 2020 15:52:16 GMT
   Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted: Thu, 17 Sep 2020 02:30:20 GMT

Viewing: CE 261A : Finite Element Analysis

Formerly known as: CE 231B

Last edit: Thu, 17 Sep 2020 02:30:19 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Ben Fell	fellb@csus.edu	916-278-8139

Catalog Title:
Finite Element Analysis

Class Schedule Title:
Finite Element Analysis

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 2021 (2021/2022 Catalog)

Subject Area: (prefix)
CE - Civil Engineering

Catalog Number: (course number)
261A

Course ID: (For administrative use only.)
107581

Units:
3

In what term(s) will this course typically be offered?
Spring term only - odd 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:
Graduate 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.

The course name change more accurately reflects the content of the course. The course description and learning objectives have not changed.

When coding this course for the catalog, please drop the A on this course so it is simply the number CE 261 (another course using CE 261 is being changed concurrently to a different number).

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
Continuation of CE 260 with extension of theory to allow for the analysis of a wider variety of structures. Structural analysis software is used for the analysis of three-dimensional structures. Fundamentals of the finite element method and computer modeling with applications to structural problems.

Are one or more field trips required with this course?
No

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 260 or instructor permission.

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):
Seminar

Seminar Classification
CS#05 - Seminar (K-factor=1 WTU per unit)
Seminar 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) Explain the concepts behind the analysis performed by commercial finite element software
(2) Further develop a structural analysis software to analyze structures using a continuum element
(3) Identify limitations and the validity of finite element analyses
(4) Interpret analysis results from commercial finite element analysis programs

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 (1, 3,4)
Projects (2, 4)
Exams (1, 3, 4)

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?
Yes

Indicate which department(s) will be affected by the proposed course:

Department(s)
Civil Engineering

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

Graduate (Masters) Learning Goals:
Critical thinking/analysis
Communication
Disciplinary knowledge
Professionalism

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

Is this a Graduate Writing Intensive (GWI) course?
No

Please attach any additional files not requested above:
CE 261 (CE 231B).docx

Key: 568