

# CE 191: SENIOR PROJECT

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## 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)
5. Academic Services (torsetj@csus.edu;%20212408496@csus.edu;%20cnewsome@skymail.csus.edu)
6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
7. Dean of Undergraduate (james.german@csus.edu;%20celena.showers@csus.edu)
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10. Registrar's Office (wwd22@csus.edu;%20wlindsey@csus.edu;%20sac19595@csus.edu;%20danielle.ambrose@csus.edu;%20h.skocilich@csus.edu;%20205109584@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

## Approval Path

1. Sat, 12 Oct 2019 03:22:55 GMT  
Julie Fogarty (fogarty): Approved for CE Committee Chair
2. Mon, 14 Oct 2019 18:01:20 GMT  
Benjamin Fell (fellb): Approved for CE Chair
3. Fri, 25 Oct 2019 16:33:05 GMT  
Troy Topping (troy.topping): Approved for ECS College Committee Chair
4. Fri, 25 Oct 2019 16:55:18 GMT  
Kevan Shafizadeh (kevan): Approved for ECS Dean

## History

1. Mar 5, 2019 by Julie Fogarty (fogarty)

Date Submitted: Sat, 12 Oct 2019 03:20:29 GMT

## Viewing: CE 191 : Senior Project

### Formerly known as: CE 190 / CE 190B

**Last approved: Tue, 05 Mar 2019 18:22:33 GMT**

**Last edit: Sat, 12 Oct 2019 03:20:28 GMT**

Changes proposed by: Julie Fogarty (218645519)

### Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Benjamin Fell	fellb@csus.edu	916-218-8139

### Catalog Title:

Senior Project

### Class Schedule Title:

Senior Project

### 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)**

191

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

107471

**Units:**

3

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

Fall, Spring

**Does this course require a room for its final exam?**

No, final exam does not require a room

**Does this course replace an existing experimental course?**

No

**This course complies with the credit hour policy:**

Yes

**Justification for course proposal:**

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.

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

Culminating degree requirement. Completion of a conceptual design and evaluation of alternatives under realistic constraints for proposed infrastructure projects. Students work in teams with practicing professionals providing mentoring. Draws upon full educational experience to date. Lecture two hours. Laboratory three hours.

**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

**Course Note: (Note must be a single sentence; do not include field trip or fee course notations.)**

This course must be taken in the final semester.

**Does this course have prerequisites?**

Yes

**Prerequisite:**

CE 190.

**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  
Laboratory

**Discussion Classification**

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

**Discussion Units**

2

**Laboratory Classification**

CS#16 - Science Laboratory (K-factor=2 WTU per unit)

**Laboratory Units**

1

**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."**

Students will be able to:

1. Prepare a detailed engineering design report in one of the five branches of civil engineering (structural, geotechnical, transportation, environmental, or hydraulic)
2. Manage and coordinate efforts on a collaborative engineering team
3. Design and execute a professional engineering presentation
4. Synthesize diverse engineering research, data, and analysis
5. Perform iterative design calculations
6. Interact professionally with civil engineering industry
7. Analyze engineering project constraints and develop engineering solutions

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

CE191 (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.**

Students will submit written work plans, draft reports, and final reports (ELO 1, 4, 5, 6, 7).

Students will submit time sheets, peer reviews, and transmittal letters detailing the role of each team member on the each deliverable. (ELO 2 & 6)

Students will also showcase their work in a final presentation with an audience of students, faculty, and industry professionals (ELO 2, 3, 4, 6)

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

Yes

**Has a corresponding Program Change been submitted to Workflow?**

No

**Identify the program(s) in which this course is required:**

**Programs:**

BS in Civil Engineering

**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: 559