# CE 160L: STRUCTURAL LABORATORY

## In Workflow

1. CE Committee Chair (j.garcia@csus.edu)
2. CE Chair (khan@csus.edu)
3. ECS College Committee Chair (abadi@csus.edu)
4. ECS Dean (101010646@csus.edu)
5. Academic Services (catalog@csus.edu)
6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
7. GE Crs Rev Subcomittee Chair (cappiello@csus.edu)
8. Dean of Undergraduate (james.german@csus.edu; renee.leonard@csus.edu)
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10. Catalog Editor (catalog@csus.edu)
11. Registrar's Office (wlindsey@csus.edu)
12. PeopleSoft (PeopleSoft@csus.edu)

## Approval Path

1. Sat, 17 Sep 2022 21:59:17 GMT
   Jose Garcia (j.garcia): Approved for CE Committee Chair
2. Sun, 18 Sep 2022 00:25:46 GMT
   Ghazan Khan (khan): Approved for CE Chair
3. Fri, 30 Sep 2022 17:24:24 GMT
   Masoud Ghodrat Abadi (abadi): Approved for ECS College Committee Chair
4. Fri, 30 Sep 2022 17:26:09 GMT
   101010646: Approved for ECS Dean

## History

1. Sep 10, 2020 by Julie Fogarty (fogarty)
2. Jun 8, 2022 by 302822325

Date Submitted: Fri, 16 Sep 2022 22:26:21 GMT

### Viewing: CE 160L : Structural Laboratory

### Formerly known as: CE 113

### Last approved: Wed, 08 Jun 2022 14:00:52 GMT

### Last edit: Fri, 30 Sep 2022 17:17:58 GMT

Changes proposed by: Julie Fogarty (218645519)

**Contact(s):**

| Name (First Last) | Email | Phone 999-999-9999 |
|---|---|---|
| Ghazan Khan | khan@csus.edu | 916-278-3886 |

**Catalog Title:**
Structural Laboratory

**Class Schedule Title:**
Structural Laboratory

**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 2023 (2023/2024 Catalog)

**Subject Area: (prefix)**
CE - Civil Engineering

**Catalog Number: (course number)**
160L

**Course ID: (For administrative use only.)**
107246

**Units:**
1

**Is the only purpose of this change to update the term typically offered or the enforcement of existing requisites at registration?**
No

**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

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

**Justification for course proposal:**
Changed CE 101 to be a concurrent prerequisite to remove structural barrier to student success and align all upper-division CE core courses (CE 130/140/150/160/170 and labs) as CE 150/150L already has CE 101 as a concurrent prerequisite. While skills gained from CE 101 are relevant to upper-division CE students, the course content can be taken at the same time as their core courses.

**Course Description: (Not to exceed 80 words and language should conform to catalog copy.)**
Introduction to the principles of structural analysis and design by testing of structural elements. Experimental verification of the assumptions of strength of materials. Introduction to laboratory techniques. Laboratory three hours. This course requires personal protective equipment (PPE).

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

**Fee Course?**
No

**Is this course designated as Service Learning?**
No

**Is this course designated as Curricular Community Engaged Learning?**
No

**Does this course require safety training?**
Yes

**Does this course require personal protective equipment (PPE)?**
Yes

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

**Does this course have prerequisites?**
Yes

**Prerequisite:**
CE 101 and ENGR 112. CE 101 may be taken concurrently. WPJ score of 70+ or equivalent. Not currently enrolled in CE 160L.

**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):**
Laboratory

**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 and Assessment Strategies:

**List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.**

| | Expected Learning Outcome | Assessment Strategies |
|---|---|---|
| 1 | (1) Physically verify various concepts from Mechanics of Materials and infer structural behavior from associated equations. | Lab reports |
| 2 | (2) Design and conduct tests, while learning measurement techniques used to evaluate strains, stresses, displacements, and failure modes of structures. | Lab reports |
| 3 | (3) Communicate experimental results in written and oral formats. | Lab reports<br>Oral presentation |

**Attach a list of the required/recommended course readings and activities:**
CE 160L Writing Assignments.pdf

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

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

**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
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?**

Yes

**In which GE area(s) does this apply?**

B5. Further Studies in Physical Science, Life Forms and Quantitative Reasoning (Upper Division Only)

**Which GE objective(s) does this course satisfy?**

Use mathematical ideas to accomplish a variety of tasks.
Gain a general understanding of current theory, concepts, knowledge, and scientific methods pertaining to the nature of the physical universe, ecosystems, and life on this planet.

**Attach Course Syllabus with Detailed Outline of Weekly Topics:**

CE 160 & CE 160L - v2.pdf

Syllabi must include: GE area outcomes listed verbatim; catalog description of the course; prerequisites, if any; student learning objectives; assignments; texts; reading lists; materials; grading system; exams and other methods of evaluation.

**Will more than one section of this course be offered?**

Yes

**Provide a description of what would be considered common to all sections and what might typically vary between sections:**

Different sections may be taught by different instructors but they all use the same course reader/note set across sections.

**Please write a statement indicating the means and methods for evaluating the extent to which the objectives of the GE Area(s) and any writing requirements are met for all course sections:**

Common syllabus and learning objectives; Meetings between part-time instructors and full-time faculty leads.

**What steps does the department plan to take to ensure that instructors comply with the respective category criteria and who is responsible?**

Oversight by full-time faculty and department curriculum committee.

Key: 533