

CE 160: INTRODUCTION TO STRUCTURAL ANALYSIS

In Workflow

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Approval Path

1. Sat, 17 Sep 2022 21:58:49 GMT
Jose Garcia (j.garcia): Approved for CE Committee Chair
2. Sun, 18 Sep 2022 00:25:42 GMT
Ghazan Khan (khan): Approved for CE Chair
3. Fri, 30 Sep 2022 17:07:59 GMT
Masoud Ghodrat Abadi (abadi): Approved for ECS College Committee Chair
4. Fri, 30 Sep 2022 17:26:05 GMT
101010646: Approved for ECS Dean

History

1. Apr 8, 2019 by Julie Fogarty (fogarty)
2. Mar 19, 2020 by Julie Fogarty (fogarty)
3. Jun 8, 2022 by 302822325

Date Submitted: Fri, 16 Sep 2022 22:25:39 GMT

Viewing: CE 160 : Introduction to Structural Analysis

Formerly known as: CE 161

Last approved: Wed, 08 Jun 2022 14:01:00 GMT

Last edit: Fri, 30 Sep 2022 17:07:09 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
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Catalog Title:

Introduction to Structural Analysis

Class Schedule Title:

Intro Structural 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 2023 (2023/2024 Catalog)

Subject Area: (prefix)

CE - Civil Engineering

Catalog Number: (course number)

160

Course ID: (For administrative use only.)

107336

Units:

3

Is the only purpose of this change to update the term typically offered or the enforcement of existing prerequisites 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.)

Analysis of statically determinate and indeterminate beams, frames, and trusses. Includes energy principles, flexibility and stiffness analyses, and influence lines. Computers are used to aid in the solution of complex structural problems.

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?

No

Does this course require personal protective equipment (PPE)?

No

Does this course have prerequisites?

Yes

Prerequisite:

CE 1, CE 101, ENGR 112, and (MATH 35 or MATH 100). CE 101 may be taken concurrently. Not currently enrolled in CE 160.

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 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	Describe the relationship between structural analysis and design.	Quizzes and exams
2	Analyze determinate and indeterminate structural systems using various methods.	Quizzes and exams
3	Interpret analysis results from modern structural analysis programs.	Computer assignment/project

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
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: 543