

CE 272A: GEOTECHNICAL MODELING

In Workflow

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

Approval Path

1. Tue, 06 Oct 2020 04:44:59 GMT
Julie Fogarty (fogarty): Approved for CE Committee Chair
2. Fri, 17 Sep 2021 22:41:35 GMT
Ghazan Khan (khan): Approved for CE Chair
3. Fri, 24 Sep 2021 17:40:37 GMT
Mohammed Eltayeb (mohammed.eltayeb): Approved for ECS College Committee Chair
4. Fri, 24 Sep 2021 17:41:19 GMT
Behnam Arad (arad): Approved for ECS Dean

Date Submitted: Tue, 06 Oct 2020 04:44:00 GMT

Viewing: CE 272A : Geotechnical Modeling

Formerly known as: CE 280C

Last edit: Fri, 24 Sep 2021 17:06:37 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Richard Armstrong	richard.armstrong@csus.edu	530-220-2015

Catalog Title:

Geotechnical Modeling

Class Schedule Title:

Geotechnical Modeling

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:

Spring 2021 (2021/2022 Catalog)

Subject Area: (prefix)

CE - Civil Engineering

Catalog Number: (course number)

272A

Course ID: (For administrative use only.)

107781

Units:

3

Is the primary purpose of this change to update the term typically offered or the enforcement of requisites at registration?

No

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

Spring term only - even 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 topic areas to help students plan their path to graduation and be consistent with the undergraduate CE course numbers. Prerequisites numbers (not courses) are being changed to reflect course number changes that occurred in the undergraduate program in 2019-2020.

This is not a new course. It is being proposed as a new course so that the existing number can be reused for another course. There is no change to the content (course description, ELOs, assessment) for this course. It is simply a number change.

When coding this course for the catalog, please drop the A on this course so it is simply the number CE 272 (another course using CE 272 is being changed concurrently to a different number).

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

Advanced analysis principles and procedures for calculating monotonic and cyclic soil element response effective stress and pore water pressure distributions, dynamic site response, and soil deformations; application to analysis of complex geotechnical engineering systems such as levees, dams, and wharfs. Laboratory time devoted to numerical analysis software and physical element and small scale tests. 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

Does this course have prerequisites?

Yes

Prerequisite:

CE 170 and CE 170L or equivalent.

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
Lecture**Laboratory Classification**

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

Laboratory Units

2

Lecture Classification

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

Lecture 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) Apply numerical analysis techniques to model complex geotechnical engineering systems
- (2) Operate a numerical analysis software program used in practice
- (3) Process and interpret results from physical element-, small-, and large-scale tests
- (4) Select input parameter values for a numerical analysis based on physical test data
- (5) Assess the appropriateness of numerical analysis results based on measured results

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

CE_272_Course_Syllabus_Armstrong_V3.pdf

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.

Problem sets: ELOs 2, 3, and 5

Examination: ELOs 1, 3, and 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

Information literacy

Disciplinary knowledge

Research (optional)

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

Key: 592