

CE 134: OPEN CHANNEL HYDRAULICS

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)
8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. Catalog Editor (212408496@csus.edu;%20torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
10. Registrar's Office (wwd22@csus.edu;%20w lindsey@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 03:21:47 GMT
Julie Fogarty (fogarty): Approved for CE Committee Chair
2. Mon, 14 Oct 2019 18:00:09 GMT
Benjamin Fell (fellb): Approved for CE Chair
3. Fri, 25 Oct 2019 16:31:21 GMT
Troy Topping (troy.topping): Approved for ECS College Committee Chair
4. Fri, 25 Oct 2019 16:53:13 GMT
Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted: Sat, 12 Oct 2019 03:09:14 GMT

Viewing: CE 134 : Open Channel Hydraulics

Formerly known as: CE 139

Last edit: Sat, 12 Oct 2019 03:09:13 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

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

Catalog Title:

Open Channel Hydraulics

Class Schedule Title:

Open Channel Hydraulics

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)

134

Course ID: (For administrative use only.)

107276

Units:

3

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

Spring term only

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:

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.

Through curriculum paper forms in 2016, each CE course had the "Not currently enrolled in CE XXX" as a prerequisite approved, so that students could not register for a "CE" prefix course if they were currently enrolled in it. This was to prevent students who thought they were failing from giving up or taking up a seat they didn't need if they passed the course. That prefix managed to make it into the online system for only one or two classes and is being put through curriculum workflow again.

The course description is modified to eliminate "pressure problems" which are outside the current scope of the class and include prediction of water surface profiles via simulation software, which has been added to the course.

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

Civil engineering design problems in steady, uniform, gradually and rapidly varied open channel flow. Hydraulic analysis in structures, transitions, culverts, weirs and spillways. Channel design including roughness for subcritical and supercritical flow. Prediction of water surface profiles via simulation software.

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 130 and CE 130L. Not currently enrolled in CE 134.

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: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."

Students will be able to:

- 1) Determine how flow depth changes with changes in channel width and bottom elevation
- 2) Predict water surface profile elevations in open channels
- 3) Use the Hydrologic Engineering Center – River Analysis System (HEC-RAS), describe its limitations and interpret its results
- 4) Analyze the impact to water surface profiles of hydraulic structures such as bridges
- 5) Select appropriate values for roughness in the analysis and design of open channels
- 6) Design an open channel to meet specific criteria

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

CE134 (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.

Homework and exams - ELOs 1-2, 4-6

Project - ELOs 1-3, 5-6

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?

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
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: 537