# CE 130: WATER RESOURCES ENGINEERING

#### 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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- Catalog Editor (212408496@csus.edu;%20torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
- 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 03:21:33 GMT Julie Fogarty (fogarty): Approved for CE Committee Chair
- 2. Mon, 14 Oct 2019 17:59:44 GMT Benjamin Fell (fellb): Approved for CE Chair
- 3. Fri, 25 Oct 2019 16:30:56 GMT Troy Topping (troy.topping): Approved for ECS College Committee Chair
- 4. Fri, 25 Oct 2019 16:52:33 GMT Kevan Shafizadeh (kevan): Approved for ECS Dean

## **History**

1. Dec 4, 2018 by Julie Fogarty (fogarty)

Date Submitted:Sat, 12 Oct 2019 03:08:26 GMT

Viewing:CE 130: Water Resources Engineering

Formerly known as: CE 137

Last approved:Tue, 04 Dec 2018 15:02:03 GMT Last edit:Sat, 12 Oct 2019 03:08:25 GMT

Changes proposed by: Julie Fogarty (218645519)

Contact(s):

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

Water Resources Engineering

Class Schedule Title: Water Resources Engr

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)

130

Course ID: (For administrative use only.)

107266

Units:

3

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

Does this course replace an existing experimental course?

No

This course complies with the credit hour policy:

Yes

#### Justification for course proposal:

Making the supporting laboratory course (CE 135) a co-requisite will improve student learning because students will participate in the laboratory experiments related to the course material the same semester and not one or more semesters later (as is often the case currently).

Undergraduate CE courses are being renumbered to clarify course pre- and co-requisites and topic areas to help students plan their path to graduation.

CE 137 will become CE 130 and the co-requisite laboratory course CE 135 will become CE 130L. The new offerings will be co-requisites meaning students must take CE 130 and CE 130L together unless a student has already successfully completed one course in the co-requisite pair.

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.

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

Hydrologic and hydraulic fundamentals which are common to water resources projects; introduction to reservoirs, dams, pipelines, channels, hydraulic machinery, ground water, water rights, statistical analysis, engineering economy applications, and water resources planning.

Are one or more field trips required with this course?

Nο

Fee Course?

No

Is this course designated as Service Learning?

No

Does this course require safety training?

Νo

Does this course require personal protective equipment (PPE)?

No

Does this course have prerequisites?

Yes

Prerequisite:

CE 1, CE 101, ENGR 115, and ENGR 132. Not currently enrolled in CE 130.

**Prerequisites Enforced at Registration?** 

Yes

#### Does this course have corequisites?

Yes

#### Corequisite:

**CE 130L** 

#### **Corequisites Enforced at Registration?**

Yes

#### **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?

Nο

#### 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 energy principles to closed conduits and solve for a variety of unknown quantities such as flow, diameter, and pressure.
- 2) Solve problems dealing with uniform and gradually-varying open channel flow.
- 3) Describe and apply hydrologic principles and processes to typical civil engineering situations.
- 4) Calculate peak and continuous runoff.
- 5) Describe and apply groundwater principles and processes to typical civil engineering situations.
- 6) Perform simple economic and statistical analyses in water resources.

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

CE\_130\_Fall\_2020\_Draft\_Syllabus.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, quizzes, and exams (ELO 1 - 6)

#### 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 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)?

Nο

# **GE Course and GE Goal(s)**

Is this a General Education (GE) course or is it being considered for GE?

No

Key: 535