CE 235: HYDROLOGIC MODELING

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. Dean of Undergraduate (james.german@csus.edu; renee.leonard@csus.edu)
8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. Catalog Editor (catalog@csus.edu)
10. Registrar's Office (wlindsey@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Sat, 17 Sep 2022 22:00:30 GMT
   Jose Garcia (j.garcia): Approved for CE Committee Chair
2. Sun, 18 Sep 2022 00:26:06 GMT
   Ghazan Khan (khan): Approved for CE Chair
3. Fri, 30 Sep 2022 17:39:06 GMT
   Masoud Ghodrat Abadi (abadi): Approved for ECS College Committee Chair
4. Fri, 30 Sep 2022 17:41:40 GMT
   101010646: Approved for ECS Dean

History

1. Mar 2, 2022 by Julie Fogarty (fogarty)
2. Jun 8, 2022 by 302822325

Date Submitted: Sat, 17 Sep 2022 21:25:53 GMT

Viewing: CE 235 : Hydrologic Modeling
Last approved: Wed, 08 Jun 2022 14:04:10 GMT
Last edit: Fri, 30 Sep 2022 17:37:35 GMT

Changes proposed by: Jose Garcia (223000076)

Contact(s):

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

Catalog Title:
Hydrologic Modeling

Class Schedule Title:
Hydrologic 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:
Fall 2023 (2023/2024 Catalog)

Subject Area: (prefix)
CE - Civil Engineering

Catalog Number: (course number)
235

Course ID: (For administrative use only.)
203729

Units:
3

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?
Spring term only - odd years

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:
Civil engineering undergraduate courses were renumbered. Updated prerequisites to match renumbered undergraduate course.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
Theories and structure of hydraulic model components; application of HEC-RAS (River Analysis System) and HEC-HMS (Hydrologic Modeling System) computer programs; emphasis on flood routing methods; dam safety analysis methodology including dam break and dam overtopping cases; application of microcomputers in hydraulics computations.

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 234 or equivalent.

Prerequisites Enforced at Registration?
No

Does this course have corequisites?
No

Graded:
Letter

Approval required for enrollment?
No Approval Required

Course Component(s) and Classification(s):
Seminar

Seminar Classification
CS#05 - Seminar (K-factor=1 WTU per unit)
Seminar 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	Apply digital data resources for hydrologic modeling.	Homework Exams
2	Identify fundamental aspects of rural and urban hydrologic modeling using HEC-HMS.	Homework Exams
3	Explain theories and structure of hydrologic model components in HEC-HMS (Hydrologic Modeling System) computer program.	Homework Project
4	Develop, calibrate and validate hydrologic models using HEC-HMS.	Homework Project
5	Apply HEC-HMS to develop hydrologic models for real world applications.	Homework Project

Attach a list of the required/recommended course readings and activities:
CE 235_Syllabus-v2.pdf

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
Disciplinary knowledge

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: 14315