

# CE 253: ENVIRONMENTAL QUALITY PROCESSES III

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## 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 22:00:39 GMT  
Jose Garcia (j.garcia): Approved for CE Committee Chair
2. Sun, 18 Sep 2022 00:26:16 GMT  
Ghazan Khan (khan): Approved for CE Chair
3. Fri, 07 Oct 2022 19:28:24 GMT  
Masoud Ghodrat Abadi (abadi): Rollback to CE Chair for ECS College Committee Chair
4. Fri, 07 Oct 2022 19:57:45 GMT  
Ghazan Khan (khan): Approved for CE Chair
5. Fri, 14 Oct 2022 16:18:50 GMT  
Masoud Ghodrat Abadi (abadi): Approved for ECS College Committee Chair
6. Fri, 14 Oct 2022 16:46:01 GMT  
101010646: Approved for ECS Dean

## History

1. Feb 28, 2022 by Julie Fogarty (fogarty)
2. Jun 8, 2022 by 302822325

Date Submitted: Sat, 17 Sep 2022 21:34:51 GMT

**Viewing: CE 253 : Environmental Quality Processes III**

**Formerly known as: CE 252C**

**Last approved: Wed, 08 Jun 2022 14:01:19 GMT**

**Last edit: Fri, 07 Oct 2022 19:38:59 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:**

Environmental Quality Processes III

**Class Schedule Title:**

Envir Quality Proc III

**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)**

253

**Course ID: (For administrative use only.)**

107641

**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?**

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:**

Civil engineering undergraduate courses were renumbered. Updated prerequisites to match renumbered undergraduate courses. Removed "CE 251 recommended" from prerequisites and included it in Course Note section.

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

Theory and practice of physical and chemical processes used in engineered water and wastewater systems. Adsorption, ion exchange, gas transfer, membrane processes, coagulation, flocculation, sedimentation, filtration, precipitation, disinfection, and stripping. Physical/chemical reactors.

**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

**Course Note: (Note must be a single sentence; do not include field trip or fee course notations.)**

CE 251 recommended.

**Does this course have prerequisites?**

Yes

**Prerequisite:**

CE 150, 150L, and 151; 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	Describe water and wastewater treatment processes and how these processes are used to protect the environment and public health.	Homework assignments (problems) Exams
2	Explain the theories underlying fundamental physical/chemical processes used in water and wastewater treatment.	Homework assignments (problems) Exams
3	Apply analytical techniques to predict the performance of selected physical chemical treatment processes.	Homework assignments (problems) Exams
4	Perform calculations to solve a wide range of physical chemical treatment processes that are used at water and wastewater treatment systems.	Homework assignments (problems) Exams
5	Review contemporary issues relating to the use of physical and chemical processes in environmental engineering practice.	Homework assignments (problems)

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

CE253\_syllabus.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?**

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

### 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

### Reviewer Comments:

Masoud Ghodrat Abadi (abadi) (Fri, 07 Oct 2022 19:28:24 GMT): Rollback: See email.

Key: 576