



Course Descriptor

ENEN571 Environmental Pollution

Proposed Academic Year	2021/2022	Last Reviewed Academic Year	2019/2020
Course Code	ENEN571	Course Title	Environmental Pollution
Credit hours	3	Level of study	Forth
College / Centre	College of Engineering	Department	Environmental Engineering
Co-requisites	CVEN361	Pre-requisites	CVEN361

1. COURSE OUTLINE

The course provides knowledge about the fate of contaminants in the environment within a single medium and between media. The course will emphasize on contaminant dispersion within air, soil, and water (surface water, and groundwater).

2. AIMS

The course provides students with concepts and techniques that enable them to understand the environmental pollution

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS (Indicative)

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
1. Understand the chemical reactions and kinetics which related to the environment	Lectures	Assignments and in-class tests
2. Understand the concepts of chemical kinetics	Lectures	Assignments and in-class tests
3. Ability to analyze continuous the environmental issues from chemistry approach	Lectures	Assignments and in-class tests

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Assignments	20%
Mid-term Examinations (two)	40%
Final Examination	40%
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve **3** credit hours for this course by passing **ALL** of the course assessments and achieving a **minimum overall score of 50%**.

NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)



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WEEK	LECTURE TOPIC	TIME (HOURS)
1,2	Introduction to Environmental Pollution	6
3	Contaminants in the environment within a single medium	3
4,5	Contaminants in the environment within a multi- medium	6
6,7	Contaminant dispersion within air	6
8,9, 10	Contaminant dispersion within soil and water	9
11,12	Transport mechanisms	3
13	Pollution issues	3
14	Design of the dominant equation	6
15	Quantify the mechanisms, and simplify the system	3
	TOTAL HOURS	45
1 - 15	Plus RECOMMENDED INDEPENDENT STUDY HOURS	
	TOTAL COURSE HOURS	45

7. RECOMMENDED READING

Core text/s:

Elementals of Environmental Chemistry, *Hites and Raff*
Water Chemistry, *Snoeyink, V. L and Jenkins, D.*

8. PLAGIARISM POLICY

As per the University Policy the following actions (not limited to), without proper attribution (quoting and/or referencing), will attract stringent penalties:

1. To copy the work of another student;
2. To directly copy any part of another person's work;
3. To summarize another person's work;
4. To use or develop an idea or thesis derived from another person's work;
5. To use experimental results or data obtained or gathered by another person;
6. To demonstrate academic misconduct during an exam.

9. ATTENDANCE POLICY

1. Students should attend all classes.
2. The course instructor will warn any student if he/she is absent for more than 10% of the lectures.

Compulsory withdrawal will be recorded for a student if he/she is absent from lectures for more than 20% of the classes.

Library + online resources:

<https://www.oercommons.org/courses/environmental-engineering-and-water-chemistry/view>

<https://open.umn.edu/opentextbooks/textbooks/introduction-to-environmental-science-2nd-edition>

<https://www.oercommons.org/courses/environmental-engineering-3>