Course Specification
(Bachelor)

Course Title:	Special Topics in Environmental Engineering
Course Code:	CE 4503
Program:	Bachelor of Science in Civil Engineering
Department:	Civil Engineering Department
College:	College of Engineering and Architecture
Institution:	Umm Al Qura University
Version:	1
Last Revision Date:	31 January 2025

Table of Contents

A. General information about the course: 3

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods 4

C. Course Content 5

D. Students Assessment Activities 5

E. Learning Resources and Facilities 5

F. Assessment of Course Quality 6

G. Specification Approval 6

A. General information about the course:

1. Course Identification

1. Credit hours: (3)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	Others
B.	☐ Required		☒ Elective		
3. Level/year at which this course is offered: (level 9 or 10/5th year)					
4. Course General Description:					
This course covers advanced selected topics in environmental engineering in accordance with the needs of the student and the guidance of the supervisor.					
5. Pre-requirements for this course (if any)**:**					
Department Approval					
6. Co-requisites for this course (if any)**:**					
Not Applicable					
7. Course Main Objective(s):					
To give the student the opportunity to attend one of the special environmental engineering topics that he might encounter during his studying. The topic should take into consideration the student's background, interests, and the requirements for his research project.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	It depends about the topic to be selected by the supervisor and it should follow the program Learning Outcomes Assessment Methods.		• Lectures • Training tutorials	• Assignments • Quizzes
2.0	**Skills**			
2.1	It depends about the topic to be selected by the supervisor and it should follow the program Learning Outcomes Assessment Methods.		• Lectures • Training tutorials • Small group work	• Assignments • Quizzes • Mid Term exam • Final Term exam • Term project
3.0	**Values, autonomy, and responsibility**			
3.1	Collaborate professionally and ethically within multidisciplinary teams to formulate and solve environmental engineering problems.	V.1	• Lectures • Training tutorials • Small group work	• Term project
3.2	Apply official codes standards, and specifications to asses	V.2	• Lectures • Training tutorials Small group work	• Term project • Mid Term exam

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	and develop solutions for complex environwental engineering design challenges.			• Final Term exam

C. Course Content

No	List of Topics	Contact Hours
1.	To be specified by the supervisor and depends about the topic.	**45**
	Total	**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignments	Weekly	5%
2.	Quizzes	3 & 6 & 9,12	15%
3.	Group project	13	5%
4.	Mid-Term Exam	8	25%
5.	Final-Term Exam	16/17	50%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	To be specified by the supervisor and depends about the topic.
Supportive References	• To be specified by the supervisor and depends about the topic.
Electronic Materials	• To be specified by the supervisor and depends about the topic.
Other Learning Materials	• To be specified by the supervisor and depends about the topic.

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	White board needs to be replaced with a bigger one with all writing and other accessories. Also, Laboratories for lectures and exams with students

Items	Resources
	working on computers for 15 students during the scheduled class and laboratories hours.
Technology equipment (projector, smart board, software)	To be specified by the supervisor and depends about the topic.
Other equipment (depending on the nature of the specialty)	• To be specified by the supervisor and depends about the topic.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	• Students • Instructor • Program leader	• Indirect • Direct • Direct
Effectiveness of Students assessment	• Independent member teaching staff	• Direct
Quality of learning resources	• Students • Instructor	• Indirect • Indirect
The extent to which CLOs have been achieved	• Instructor • Students • Program leader	• Direct • Indirect • Direct
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**CIVIL ENGINEERING COUNCIL**
REFERENCE NO.	**THE FIFTEENTH SESSION OF THE ACADEMIC YEAR 1446**
DATE	**30 APRIL 2025**

