

<p>Kingdom of Saudi Arabia Ministry of Higher Education <b>Qassim University</b> College of Engineering</p>		<p>المملكة العربية السعودية وزارة التعليم العالي جامعة القصيم كلية الهندسة</p>
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## CE 692 Special Topics in Environmental Engineering

**College: Engineering College (Qassim University)**

**Department: Civil Engineering**

**First: Course Definition**

**1- Course Code: CE 692**

**2- Units: 3**

**3 – Semester:**

**4 -Prerequisite :** Depends on the Selected Topics.

**5- Co-requisite: None.**

**6- Location** (if not on main Campus):

**Second: Course Objectives**

This course will be prepared to fit the students’ needs. Therefore, course objectives shall depend on the selected topics by the instructor. In general the following objective may be set:

- To enhance students’ experience in specific civil engineering area.
- To keep up with the advancements in specific CE research area which might be essential to students’ research.
- To enhance students’ capabilities in independent research.

**Third: Course Specifications**

1- Topics to be covered		
Subject	No of Weeks	Units
Depends on the selected topics		

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**2- Course components (Total hrs in the Semester): 42**

Lecture	Exercise/lab	Other
Depends on the selected topics		

**3- Intended Learning Outcomes of the Course (ILO's)**

**a. Knowledge**

*i) Description of the knowledge to be acquired:*  
Depends on the selected topics

*ii) Teaching strategies to be used to develop that knowledge*

- Class lectures.
- Term projects.
- Students' presentations.
- Group discussion.

*iii) Methods of assessment of knowledge acquired*

- Exams.
- Quizzes.
- Homework assignments.
- Term projects.

**b- Cognitive (Intellectual) Skills**

*i) Description of the skills to be developed in this domain*

- Literature research.
- Problems modeling.
- Utilization of computer applications in analysis and design.

*ii) Teaching strategies to be used to develop these cognitive skills*

- Class lectures.
- Case studies analysis.
- Computer lab sessions.
- Term projects.

*iii) Methods of assessment of students' cognitive skills*

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- Term projects.
- Written reports.
- Students' seminars and presentations.

**c. Interpersonal Skills and Responsibility**

- i) Description of the interpersonal skills and capacity to carry responsibility to be developed**
- Decision making based on engineering analysis.
  - Communication skills.
  - Team work.

- ii) Teaching strategies to be used to develop these skills**
- Class lectures.
  - Term projects.
  - Case studies analysis.

- iii) Methods of assessment of students' interpersonal skills and capacity to carry responsibility**
- Term project.
  - Written reports.
  - Students' seminars and presentations.

**d. Communication, Information Technology and Numerical Skills**

- i) Description of the skills to be developed in this domain**
- Literature research.
  - Problems modeling.
  - Utilization of computer applications in analysis and design.
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- ii) Teaching strategies to be used to develop these skills**
- Class lectures.
  - Case studies analysis.
  - Computer lab sessions.
  - Term projects.

- iii) Methods of assessment of students numerical and communication skills**
- Term project.
  - Written reports.
  - Students' seminars and presentations.

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***e. Psychomotor (if applicable) & Other Non-cognitive Skills***

***i) Description of the psychomotor or other skills to be developed and the level of performance required***

- NA

***ii) Teaching strategies to be used to develop these skills-***

- NA
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***iii) Methods of assessment of student's psychomotor skills***

- NA
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**4- Student Assessment Schedule**

<b><i>Serial</i></b>	<b><i>Assessment tool (test, group project, examination etc.)</i></b>	<b><i>Week due</i></b>	<b><i>Weight</i></b>
1	Term Project – 1	3 <sup>rd</sup>	15 %
2	Mid Term Exam -1	7 <sup>th</sup>	15 %
3	Term Project – 2	10 <sup>th</sup>	15 %
4	Term Project – 3	13 <sup>th</sup>	15 %
5	Final Exam	16 <sup>th</sup>	40 %

**5- Student Support**

- Providing electronic library of textbooks and scientific periodicals.
- Providing the necessary computer applications for the course.

**6- Learning Resources**

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**i) Essential Books (References)**

Depends on the selected topics

**ii) Course Notes**

- NA
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**iii) Recommended Books**

Depends on the selected topics

**iv) Electronic Books & Web Sites:**

- Scientific journals and forums.
- Instructor's instruction.
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**v) Periodicals**

- ASCE scientific journals.
- British Geotechnique journal.
- Canadian journal of geotechnical engineering.
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**7- Course Evaluation and Improvement Processes**

**i) Strategies for Obtaining Student Feedback on Effectiveness of Teaching**

- Students' questioners.
- Students' evaluation of course and instructor.
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**ii) Other Strategies for Evaluation of Teaching by the Instructor or by the Department**

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- Public faculty seminars.
- Assessment by external evaluators of students achievements.
- Instructor (Course) Report
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- iii) Processes for Improvement of Teaching**
- Assessment of students' work by external examiners.
  - Analysis of students' evaluation of course and instructor.
  - Seminars by industry professionals.
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- iv) Processes for verifying standards of student achievement**
- Check marking by an independent faculty member of a sample of student work.
  - Periodic exchange and remarking of a sample of assignments/exams with a external evaluator.
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- v) Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.**
- Assessment and evaluation of the level of achieving the course outcomes through a continuous improvement process (part of a quality assurance system established by the university),
  - Consequently, actions are to be taken to improve the course delivery when necessary.
  - Review of the course objectives, outcomes and curriculum every 2 years.