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| <p>Kingdom of Saudi Arabia Ministry of Higher Education Qassim University College of Engineering</p> |  | <p>المملكة العربية السعودية وزارة التعليم العالي جامعة القصيم كلية الهندسة</p> |
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CE 691 Special Topics in Construction Engineering and Management

College: Engineering College (Qassim University)

Department: Civil

First: Course Definition

1- Course Code: CE 691

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: 56)

| 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

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

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

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- 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.

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

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

4- Student Assessment Schedule

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

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5- Student Support

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

6- Learning Resources

i) Essential Books (References)

Depends on the selected topics

ii) Course Notes

- NA

iii) Recommended Books

Depends on the selected topics

iv) Electronic Books & Web Sites:

- Scientific journals and forums.
- Instructor's instruction.

v) Periodicals

- ASCE scientific journals.
- British Geotechnique journal.
- Canadian journal of geotechnical engineering.

7- Course Evaluation and Improvement Processes

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i) Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Students' questioners.
- Students' evaluation of course and instructor.

ii) Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- Public faculty seminars.
- Assessment by external evaluators of students achievements.
- Instructor (Course) Report

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.

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.