



College: Engineering

Department: Civil

Course Title: Retaining walls

Course No: CE520

Credit Hours: 3Hours

Semester: 2021 / 2020

### About The Course

Course Title: Retaining walls

Class:410

Course No: CE520

Credit Hours: 3

Lecture Room: 410

Obligatory/ Optional: Obligatory

Text Book: Design of Masonry structures (3rd Ed.) of load bearing design

Design of Retaining walls of dr. Izni Syahrizal bin Ibrahim

### The Instructor

Name: DR.Talal Masou'd

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## Course Description

1. Types of walls
2. Types of retaining walls
3. Masonry retaining walls
4. Gravity retaining walls
5. Earth pressure theories
6. Cantilever retaining walls
7. Counterfort retaining walls
8. Buttress retaining walls

## Course Objectives

1. Types of walls and type of retaining walls
2. analysis and Design Masonry retaining walls .
3. analysis and Design gravity retaining walls .
4. analysis and Design Cantilever retaining walls .
5. analysis and Design Counterfort retaining walls .
6. analysis and Design Buttress retaining walls .

## Learning Outcome

**Making students aware of how language works to convey meaning as its basic function**

## Course Outline and Time schedule

Week	Course Outline
First week	Types of walls
2 <sup>nd</sup> week	Earth pressure theories
3 <sup>rd</sup> week	Type of retaining wall
4 <sup>th</sup> week	Analysis of masonry retaining wall

5 <sup>th</sup> week	Design of masonry retaining wall
6 <sup>th</sup> week	Design of gravity retaining wall
7 <sup>th</sup> week	Drainages
8 <sup>th</sup> week	Factors effect ivy the earth pressure
9 <sup>th</sup> week	Shape factors
10 <sup>th</sup> week	Analysis of cantilever retaining walls
11 <sup>th</sup> week	Design of cantilever retaining walls
12 <sup>th</sup> week	Analysis of counterfort retaining walls
13 <sup>th</sup> week	Design of counterfort retaining walls
14 <sup>th</sup> week	Design of buttress retaining walls
15 <sup>th</sup> week	Details and construction

### **Presentation methods and techniques**

Methods of teaching varied according to the type of text, student and situation. The following techniques are usually used:

- 1- Lecturing with active participations.
- 2- Problem solving.
- 3- Cooperative learning.
- 4- Discussion.
- 5- Learning by activities.
- 6- Connecting students with different sources of information

### **Sources of information and Instructional Aids**

For example: Computer ... power point ...etc.

- Transparencies
- Distance learning
- Library sources

### Assessment Strategy and its tools

The assigned syllabus is assessed and evaluated  
Through: feed back and the skills that are acquired by the students

The tools:

- 1- Diagnostic tests to identify the students level and areas of weakness
- 2- Formal (stage) evaluation
  - a) Class Participation
  - b) Ist Exam
  - c) 2nd Exam
  - d) Activity file

### Tool & Evaluation

Tests are permanent tools & assessment, in addition to the activity file which contains curricular and the co-curricular activities, research, report papers and the active participation of the student in the lecture.

The following table clarifies the organization of the assessment schedule:

Test	Date	Grade
First Exam		20
2 <sup>nd</sup> Exam		20
Activities & Participation	Students should be notified about their marks	20
Final Exam		40

## **Activities and Instructional Assignment**

- 1- Practical assignments to achieve the syllabus objectives.
- 2- .....

### **Regulations to maintain the teaching-Learning Process in the Lecture:**

- 1- Regular attendance.
- 2- Respect of commencement and ending of the lecture time.
- 3- Positive relationship between student and teacher.
- 4- Commitment to present assignments on time.
- 5- High commitment during the lecture to avoid any kind of disturbance and distortion.
- 6- High sense of trust and sincerity when referring to any piece of information and to mention the source.
- 7- The student who absents himself should submit an accepted excuse.
- 8- University relevant regulations should be applied in case the student's behavior is not accepted.
- 9- Allowed Absence percentages is ( %).

## **Internet websites**

- 1.....
- 2.....
- 3.....

### **References :**

- 1.....

2.....

3.....

## Syllabus Classification

<b>Objectives</b>	<i>Learning outcome</i>	<i>Assessment tools</i>
1-		
2-		
3-		
4-		
5-		

