College: Engineering Department: Civil

Course Title: foundation engineering

Course No: CE418

Credit Hours: 3Hours

Semester: 2021/2020

## About The Course

Course Title: foundation engineering Class:410
Course No: CE418
Credit Hours: 3 Lecture Room: 410

Obligatory/ Optional: Obligatory
Text Book: Principles of foundation Engineering (8th Ed.) Braja M.Das
Foundation analysis And Design (5rd Ed.) Toseplt E.Bowles

## The Instructor

Name: DR.Talal Masou'd
Title: Full time lecturer

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## Course Description

1. Shear strength of soil
2. Types of foundation
3. Failure on soil
4. Type of settlement
5. Design of footing
6. Details of footing

## Course Objectives

1. Describe the magnitude of shear stress that a soil can sustain ,and describe types of failure on soil

2. analysis and Design single footing .

3. calculate ultimate bearing capacity

4. analysis and Design combined footing .

4. analysis and Design wall footing .

## 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 | Soil mechanics |
| 2nd week | Shear strength of soil |
| 3rd week | Type of foundation |
| 4th week | Depth of footing (factor effecting the depth of factors) |
| 5th week | Types of failure on soil |

| | |
|---|---|
| 6th week | Ultimate bearing capacity and allowable bearing factor of safety |
| 7th week | Immediate settlement |
| 8th week | Consolidation settlement |
| 9th week | Secondary consolidation settlement |
| 10th week | Subsurface exploration |
| 11th week | Analysis of footing |
| 12th week | Design of single footing |
| 13th week | Design of single footing |
| 14th week | Design of combined footing |
| 15thweek | Details of footing |

## 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- Digonistic 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-cussiculor 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 |
| 2nd 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 seuse 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 students behavior is not accepted.

9- Allowed Absence percentages is ( %).

## Internet websites

**1…….**

**2…….**

**3……..**

## References :

**1……**

**2……**

**3……**

# Syllabus Classification

| **Objectives** | ***Learning outcome*** | ***Assessment tools*** |
|---|---|---|
| 1- | | |
| 2- | | |
| 3- | | |
| *4*- | | |
| 5- | | |