



**Faculty of Engineering – Assiut University
Bachelor Degree**

Civil Engineering Program

Dept. of Civil Engineering

Course specification

Soil Mechanics and Foundation (1) C227

1. Course Aim

Main Aim	Basic information about types of soils and its various properties.
Sub-Aims Chapters	By the end of the course the student should be able to identify various types of soils and estimating permeability coefficient and stresses in it, checking its stability and to calculate earth pressure.

2. Course Content

Introduction –Preliminary definitions and relations –Index properties of soil-
Classification of soils- Water in soil – Permeability of soil- Stress in soil –
Settlement in elastic matter- Consolidation of soil- Compaction of soil –
Stability of slopes – Earth pressure.

3. Course Topics

Topic	Title	Weeks
1 st topic	Introduction	1
2 nd topic	Preliminary definitions and relations	2
3 rd topic	Index properties of soil	3
4 th topic	Classification of soil	4
5 th topic	Water in soil	5
6 th topic	Permeability of soil	6
7 th topic	Stress in soil	7
8 th topic	Settlement in elastic matter	8-9
9 th topic	Consolidation of soil	10-11
10 th topic	Compaction of soil	12
11 th topic	Stability of slopes	13

12th topic

Earth pressure

14

11.2 Grades Distribution

Assesment Methods	Percentage	Time
Final Exam	70 %	By the end of semester
Oral Final Exam	0 %	-
Semester Assessments*	30%	*
Total	100%	

11.2.1 Semester Assessments*

Semester Assessments	Percentage	Time
Written Exam	20%	Week No. 13
Tutorial assessment	5 %	Each week
Report assessment	5%	Week No. 10
Total	30%	-

4. References

- Abdel Rahman O.H., (1987) “Retaining walls”, foundation design, hand book 207-228.
- Bishop, A.W., and G.E.Blight, (1963) “some aspects of effective stress in saturated and partly saturated soils” vol. 13, PP. 177-197.
- British standards institution, (1948) “methods of test for soil classification and compaction” British standard specification 1377:1948, London.
- El Sharif M.A. (1985) “shear strength characteristics of some Egyptian silty soils”, master of science, assuit, Egypt.