



Course Weekly Outline

Course Instructor	Luay Dawood Farhan				
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Title	Principles of soil				
Course Number					
Credits: Lectures Houres: Practical Hours:					
Course Objective	Geological science				
Course Description	The student should how formation and process in soil, physical, chemical and biochemistry				
Prequests					
Textbook References	Alani, 1988. Principles of soil				
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As (30%)		As (10%)	----	As (60%)
General Notes					

Course weekly Outline

week	Date	Topics Covered	Practical Part
1		Soil formation and formation	How to take soil samples
2		Soil formation processes and factors	Preparation of samples for laboratory study
3		Soil profile	Determination of moisture in the soil
4		Soil physical properties(psp) texture, classes, structure,	Distribution (soil texture)
5		Soil density, Bulk density , soil air , soil temperature , soil color	Distribution volumetric minutes of soil (mechanical analysis)
6		Available water capacity , permeability soil water.	Determination density and bulk soil
7		Soil water (soil water classification)	How to prepare saturated soil paste and calculate saturation
8		Soil Chemical Properties	Measurement of electrical conductivity
9		Soil minerals	Measure PH in soil
10		Colloids and soil properties	
11		Double electrical layer	Determination of positive ions from soil and water extract
12		Exchanges ion in the soil	Determination of negative ions from soil and water extract
13		The properties of bio-soil (soil classification revival)	Estimate calcium carbonate
14		The role of biology in the soil to increase soil fertility	Estimation of organic matter
15		Soil classification	Estimation of soil biology

Instructor Signature:

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