

1. Course Name:

Principles of soil science

2. Course Code:

PRSS113

3. Semester / Year: Aumtumn - 2023

First fall semester 2023-2024

4. Description Preparation Date:

1 /9/ 2023

5. Available Attendance Forms: Mandatory attendance

Cuonpuncry

6. Number of Credit Hours (Total) / Number of Units (Total) :

2 theoretical + 3 practical 3.5 units

7. Course administrator's name (mention all, if more than one name)

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8. Course Objectives

Theoretical

- Enabling the student to know the composition, origin and development of soil
- Introducing the student to the physical, chemical and biological properties of soil
- Introducing the student to some soil problems, such as salinity and alkalinity
- And how to treat it

practical :

- Enable the student to learn about collecting soil samples from the field
- How to prepare it for laboratory analysis and conduct the most important basic analyses
- For soil

9. Teaching and Learning Strategies

My theory:

- 1- Knowledge and understanding.
- 2- Identifying the problem of salinity, the nature of its treatment, and methods of living with it.
- 3- Identify the ionic structure of salts.
- 4- Identifying the salt phases of soils affected by salinity.
- 5- The possibility of preparing a salt map for areas affected by salinity in order to develop scientific programs for their reclamation. Study.

practical:

- Adapting to teamwork to reveal skills.
- Assignment of tasks and reports to each committee.

10. Course Structure

Week	Hours	Required Learning	Unit or subject	Learning	Evaluation
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		Outcomes	name	method	method
1	2 Theoretical 3 practical	Theoretical The student demonstrates concepts Soil science practical : The student identifies the soil core	Theoretical Introduction to science concepts the soil practical : Move the soil and collect samples from field	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignments, discussions
2	2 Theoretical 3 practical	Theoretical The student gets to know Soil formation practical : The student gets to know Description of soil section	Theoretical Origin and development of soil practical : Description of soil section	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignments, discussions
3	2 Theoretical 3 practical	Theoretical The student learns about the processes of soil formation practical: The student identifies the soil	Theoretical Soil formation processes practical : Determine soil texture	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignments, discussions
4	2 Theoretical 3 practical	Theoretical The student explains the properties Soil physical practical : The student measures the degree of interaction the soil	Theoretical Physical properties of soil practical : Estimating degree of interaction	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignments, discussions
5	2 Theoretical 3 practical	My theory: The student learns about construction the soil practical : The student measures ratio	Theoretical Soil building practical : Estimation of calcium carbonate in the soil	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical :	Short exams, assignments, discussions

		Carbonates in soil		Assigning tasks And report.	
6	2 Theoretical 3 practical	Theoretical The student gets to know Soil temperature practical : The student measures a ratio Carbonates and bicarbonates In the soil	Theoretical : soil temperature practical : Determination of carbonates and bicarbonates In the soil	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignment ts, discussion s
7			First semester exam		
8	2 Theoretical 3 practical	Theoretical The student distinguishes properties Chemical soil practical : The student measures a ratio Sodium and potassium	Theoretical Colloids and properties Chemical soil practical : Determination of sodium and potassium	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignment ts, discussion s
9	2 Theoretical 3 practical	Theoretical The student explains Organic colloids practical : The student measures the material Membership	Theoretical Organic colloids practical : Estimation of soil organic matter	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignment ts, discussion s
10	2 Theoretical 3 practical	Theoretical The student is familiar with the properties of soil Biological practical : The student discovers vehicles Humic	Theoretical Soil biological properties practical : Estimation of humic compounds In the soil	Theoretical The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning tasks And report.	Short exams, assignment ts, discussion s
11	2 Theoretical	Theoretical The student learns about the salinity and	Theoretical Salinity and alkalinity in the	Theoretical The salib audio	Short exams, assignment

	3 practical	alkalinity of soil practical : The student determine soil salinity	Soil practical : Estimation of soil salinity	style Write on Chalkboard style Direct dialogue practical : Assigning task And report.	ts, discussion s
12	2 Theoretical 3 practical	Theoretical The student is familiar with the effect of salinity on agricultural production practical : The student measure the soil capacity Cationicity	Theoretical The effect of soil salinity on Agricultural Production practical : Estimation of soil cation capacity	My theory: The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning task And report.	Short exams, assignments, discussion s
13	2 Theoretical 3 practical	Theoretical Important nutrients In the soil practical : Extracting ready-made elements From the soil	Theoretical Irrigation water classification systems practical : Determination gypsum in soil	My theory: The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning task And report.	Short exams, assignments, discussion s
14	2 Theoretical 3 practical	Theoretical The student learns about phosphorus and potassium in the Soil practical : The student measures phosphorus in the soil	Theoretical Phosphorus and potassium In the soil practical : Determination phosphorus in soil	My theory: The salib audio style Write on Chalkboard style Direct dialogue practical : Assigning task And report.	Short exams, assignments, discussion s
15			Second semester exam		

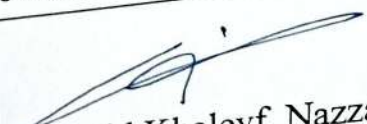
11. Course Evaluation


	Evaluation methods	Evaluation date	Grade Relative	weight %
1	Theoretical final report + practical experience reports	Theoretical week 15, practical week 15	7 theoretical + 6 practical	13%

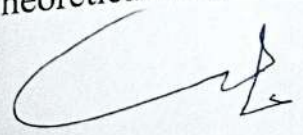
2	Short test (1) Quiz	week (3)	4 theoretical + 2 practical	6%
3	Exam Midterm (theoretical + practical)	week (9)	10 theoretical + 5 practical	15%
4	Short test (2) Quiz	week (12)	4 theoretical + 2 practical	6%
5	Final practical test	A week of practical exams	20	20%
6	Final theoretical test	The week of theoretical exams	40	100%
the total			100	100%


12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Principles of Soil Science, written by Abdullah Al-Ani (1982)
Main references (sources)	Land environmental chemistry, soil chemistry
Recommended books and references (scientific journals, reports...)	Al-Rafidain Agriculture Journal, Soil Science Journal
Electronic References, Websites	


Dr.. Khalid Khaleyf Nazzal
Theoretical subject lecturer


Mr. Asama hsiam fathl
Practical subject lecturer


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