Course Description Form

1. Course Name:

Soil salinity

2. Course Code:

SSAL353

3. Semester / Year: spring

Spring second semester 2024-2024

4. Description Preparation Date:

19 /1/ 2025

5. Available Attendance Forms: Mandatory attendance

Cuonpuncry + Onlin

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	practical :
1- Study the chemical properties of saline soil. 2- Chemical reactions in saline soil solution. 3- Mechanism of salt movement and transport in saline soils. 4- The effect of soil salinity on plant growth.	Enabling the student to recognize the mos important ways to study and learn about The most important methods of analysis a diagnosis and the most important diagnc of saline soils.

9. Teaching and Learning Strategies

My theory:	practical:
1- Knowledge and understanding. 2- Identifying the problem of salinity, the nature 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 ar affected by salinity in order to develop scient programs for their reclamation. Study.	- Adapting to teamwork to reveal skills. - Assignment of tasks and reports each committee.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2 Theoretical	A20:Explains to the student what it is Saline soils	Soil salinity	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	B11:Shows the stude nature Saline soils.	Soils are saline ir nature	Assigning task: And report.	assignments , discussions
2	2 Theoretical	C13:Shows the stude how The appearance of Wasel Saline soils	The origin of the appearance of sa	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	B22:Shows the stude how Get a solution Saline soils	Soil solution	Assigning task: And report.	assignmen ts, discussion s
3	2 Theoretical	A38: Explains to dog: what factors are responsible About soil formation Saltiness	Factors responsi for formation Salts	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	C16:Explain to the student what it is Cations in solution the soil	Cations in soil solution	Assigning task: And report.	assignments , discussions
4	2 Theoretical	A34: Explains to the student what are the characteristics of soi Saltiness	Chemical properties And the physics salts	The salib audio style Write on Chalkboard style Direct dialogue	Short exams, assignmen ts, discussion s

	3 practical	b16: It shows the stude how to make decisions and design according to the project data	Design stage Andmake decision	Assigning tasks And report.	assignments , discussions
4	2 Theoretical	c4: Shows the student how to take Decisions based on Information that has been done Collect them in the stag The first	The second stage is calculations Designs and decisions	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	a24: Explains to t he student how Conducting settlement work.	Settlement	Assigning tasks And report.	assignments , discussions
5	2 Theoretical	b33: Shows the student how to implement Reclamation programn	The third stage - implementation	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	c22: Applying the lesson in the field teaches the student ho to identify lines Contourism.	Filling contour lines	Assigning tasks And report.	assignments , discussions
6	2 Theoretical	a6: Explains to the student the mechanism of the cultivation stage	The fourth stage: cultivation	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	c22: Explains to the student the effect of settlement on physical and chemical properties of the soil.	The effect settlement on soil properties and productivity	Assigning tasks And report.	assignments , discussions
7			First semester exam		

8	2 Theoretical	b1: Shows the student how to manage Lands that have been completed Reclaim it	Reclaimed land managemen	The salib audio style Write on Chalkboard style Direct dialogu	Short exams,
	3 practical	c45: Shows the studen how to determine Soil salinity in the f and laboratory.	Methods of estimating and expressing salinity	Assigning tasks And report.	assignments , discussions
9	2 Theoretical	c37: Show the student how Dealing with lands Gypsum	Land Reclamation Gypsum	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	a24: leaching requirements	Theoretical correlation of salts	Assigning tasks And report.	assignments , discussions
10	2 Theoretical	b33: Show the student how Dealing with lands Limestone	Land Reclamation Limestone	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	c22: It teaches the student how to calcula Leaching requirements.	Leaching requirements	Assigning tasks And report.	assignments , discussions
11	2 Theoretical	b33: Shows the mechanism reclamation Sandy lands	Land Reclamation Sandy	The salib audio style Write on Chalkboard style Direct dialogu	Short exams, assignments , discussions
	3 practical	c24: Requ irements calculations Leaching	Washing operatio	Assigning tasks And report.	assignments , discussions

12	2 Theoretical	a6:Shows the student what indicators are used To determine the bearing Crops to salinity the soil .	Indicators used To determine the bearing Crops to salinity	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	c37: Shows the student what indicators are usedTo determine whether a process has been completed Washing.	Indicators used To complete washing operation	Assigning tasks And report.	assignments , discussions
13	2 Theoretical	b9: Shows the student how to determine Quality.	My theory: Irrigation water quality	My theory: The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	a6: Shows the student how soil turns into soda during the washing process.	The soil turns sodic	Assigning tasks And report.	assignments , discussions
14	2 Theoretical	b1: Shows the student how Control salinity the soil .	Theory: Controlling salinity and ways to live w it	My theory: The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	c24: Explain to the student what it is The danger of sodium the soil .	The danger of sodium	Assigning tasks And report.	assignments , discussions
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)	Land reclamation book / Dr. Ahmed Haider Al-Zubaidi 1989
Main references (sources)	Land environmental chemistry book.
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. Shaimma Ghanem Daoud

Practical subject lecturer

Dr. Abdul Qader Abash Sabak

Chairman of the Scientific Committee

Dr. Khalid Anwer Khalid

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