Course Description Form

1. Course Name:
Land Reclamation
2. Course Code:
LARE457
3. Semester / Year:
Autumn First semester 2024-2025
4. Description Preparation Date:
16 /9/ 2024
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 1-Preparing students who have the ability to evaluate and characterize soils affected by salinity according to scientific concepts and foundations. 2-Entering the agricultural sector with distinguished efficiency by participating in reclamation projects for lands affected by salts. 3-Directing students towards a desire to obtain better experiences when applying for postgraduate studies.	practical: 1- Enabling the student how to use the devices in analysis. 2- Enabling the student how to determine saline soil laboratory. 3- Enabling the student to understand the types of mechanical and chemical analy sis. 4- Enabling the student how to deal with the results of the analysis and determine Correct resultsfrom abnormal ones.
9. Teaching and Learning Strategies	
Theoretical 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	practical: - Adapting to teamwork to reveal skills. - Assignment of tasks and reports each committee.

order to develop scientific programs for their reclamation.	

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical	a5: Explains to the student Reclamation concept Land and its influence On production agricultural on Global level And the local practical	Reclamation conce Lands and their ro In agricultural production	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	a9: Shows the student what it is Reclamation programn Lands and what they areStages of this program	Reclamation programme Saline lands	Assigning tasks And report.	assignments , discussions
2	2 Theoretical	b1: Explains to the student What are soils? Saline and sodic	Land Reclamation Saline and sodic	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,
	3 practical	a13: Explains to the student the mechanism Collect information abo The site to be created Reclamation project	The investigation, research and study stage	Assigning tasks And report.	assignments , discussions
3	2 Theoretical	b9: Shows to the stud Program stages reclamation Saline lands.	Reclamation programme Salt lands	The salib audio style Write on Chalkboard style Direct dialogue	Short exams,

	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 programm	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 student 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

جامعة الموصل
كلية الزراعة والغابات
قسم التفاصيل العقلية

Dr. Weam Yahya Rashid
Chairman of the Scientific Committee

Dr. Maysar Muhammad Aziz
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Soil Sciences and Water Resources