

Course Description Form

1. Course Name:					
Forest Soil					
2. Course Code:					
FOSO256					
3. Semester / Year:					
Second Semester / 2023-2024					
4. Description Preparation Date:					
1 / 2 / 2024					
5. Available Attendance Forms:					
Attendance					
6. Number of Credit Hours (Total) / Number of Units (Total)					
2 Theory + 3 practical / 3.5 units					
7. Course administrator's name (mention all, if more than one name)					
Name: Dr. Qahtan Darwish Essa Email: qahtan_darwish@uomosul.edu.iq					
8. Course Objectives					
Theory : -Enabling the student to know the composition, origin and development of soils - 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					
Strategy		-Interactive lecture, Brainstorming, - Dialogue and discussion, - Assigning tasks and reporting - Assigning group work to reveal leadership skills			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theory 3 Pract.	Theory: a1: The student Demonstrates concepts Soil science practical : b2 : The student identifies the soil profile	Theory: Introduction to science concepts the soil practical : Move the soil and collect samples from field	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks	Exams, Homework, Reports

				and reports	
2	2Theory 3 Pract	Theory: a2: The student gets to know Soil formation practical : a13: The student gets to know Description of soil section	Theory: Origin and development of soil practical : Description of soil section	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
3	2Theory 3 Pract	Theory: c1: The student learns About the processes of soil formation practical: b3: The student identifies a tissue the soil	Theory: Soil formation processes practical : Determine soil texture	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
4	2Theory 3 Pract	Theory: c2: The student distinguishes the organic layers in soil practical : b4: The student measures the density of the soil	Theory: Organic layers in the soil practical : Estimating soil density	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
5	2Theory 3 Pract	Theory: a3: The student explains the properties Soil physical practical : b5: The student measures the degree of interaction the soil	Theory: Physical properties of soil practical : Estimating the degree of soil interaction	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
6	2Theory 3 Pract	Theory: a4: The student learns about construction the soil practical : b6: The student measures a ratio Carbonates in soil	Theory: Soil building practical : Estimation of calcium carbonate in the soil	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style	Exams, Homework, Reports

				Practical : Assigning tasks and reports	
7	2Theory 3 Pract	Theory: a5: the student gets to know Soil temperature practical : b7: The student measu a ratio Carbonates and bicarbonates in the soil	Theory: soil temperature practical : determination carbonates bicarbonates in the soil	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
8	2Theory 3 Pract	Theory: b1: The student identifies a type of water the soil practical : b8: The student measu the content wet.	Theory: Soil water classification practical : Moisture content Measurements for soil	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
9	2Theory 3 Pract	Theory: a6: The student distinguishes properti Chemical soil practical : b9: The student measures a ratio Na and K	Theory: Colloids and properties Chemical soil practical : Determination of Na and K	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
10	2Theory 3 Pract	Theory: a7: The student explain organic colloids practical : b10: The student measures the material membership	Theory: Organic colloids practical : Estimation of soil organic matter	Theory : -Auditory methods, -Style of writing on The blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
11	2Theory 3 Pract	Theory: a8: The student is familiar with the properties of soil Biological practical :	Theory: Soil biological properties practical : Estimation of humic compounds	Theory : -Auditory methods, -Style of writing on The blackboard	Exams, Homework, Reports

		c3: The student discovers humic substances in the soil		-Direct dialogue style Practical : Assigning tasks and reports	
12	2Theory 3 Pract	Theory: a9: The student learns about the salinity and alkalinity of soil practical : a14: The student determines soil salinity	Theory: Salinity and alkalinity in the soil practical : Estimation of soil salinity	Theory : -Auditory methods, -Style of writing on the blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
13	2Theory 3 Pract	Theory: a10: The student is familiar with the effect of salinity on agricultural production practical : b11: The student measures the soil cation exchange capacity.	Theory: The effect of soil salinity on agricultural production practical : Estimation of soil cation exchange capacity	Theory : -Auditory methods, -Style of writing on the blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
14	2Theory 3 Pract	Theory: a11: The student is familiar with the important nutrients in the soil practical : c4: The student discovers the extractable nutrients from the soil	Theory: Important nutrients in the soil practical : Extracting available nutrients from the soil	Theory : -Auditory methods, -Style of writing on the blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
15	2Theory 3 Pract	Theory: a12: The student learns about phosphorus and potassium in the soil practical : b12: The student measures phosphorus in the soil	Theory: Phosphorus and Potassium in the soil practical : Determination of phosphorus in soil	Theory : -Auditory methods, -Style of writing on the blackboard -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports

11. Course Evaluation

	Evaluation Methods	Evaluation Date	Degree	Relative weight %
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	Final report theory + pract. Report	Theory 15 weeks Pract. 1-15 week	7 Theory + 6 pract.	% 13
	Short exam (1)	Week (3)	4 Theory + 2 pract.	% 6
	Half exam (theory + pract.)	Week (9)	10 Theory + 5 pract.	% 15
	Short exam (2)	Week (12)	4 Theory + 2 pract.	% 6
	Final exam (practical)	Exam pract.	20	% 20
	Final exam (theory)	Exam theory	40	% 40
			100	% 100
12. Learning and Teaching Resources				
Required textbooks (curricular books, if any)				
Main references (sources)		Book (Soil Science) Dr. Abdullah Al-Aani		
Recommended books and references (scientific journals, reports...)		Book (Environmental chemistry of Soil) and (Soil Chemistry)		
Electronic References, Websites		Sposito, G. (2008). The chemistry of soil. Oxf University Press		

Teacher of Theory : Dr. Qahtan Darwish Essa

Teacher of Practical : Mr. Mohammed Aiad Harbawi , Aliaa Abd-Allateef

Chairman of the Scientific Committee :

Head of the Dept. of Forestry Sciences: