

Course Description Form

1. Course Name:					
Forest measurements					
2. Course Code:					
FOME300					
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. Ammar Jasim Mohammed Email: ammar_jasim@uomsul.edu.iq Name: Faiza Ali Rasheed Email: faiza_ali@uomosul.edu.iq					
8. Course Objectives					
Theory : - Developing the student's ability to deal with scientific and technical means - Developing the student's ability to deal with the Internet - Developing the student's ability to deal with multiple media. - Developing the student's ability to dialogue and discuss Developing the student's ability to deal economically in the field the job.			Practical : -Developing the student's ability to deal with multiple media. - Developing the student's ability to dialogue and discuss		
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: Learn about the basic concepts of forest science, their applications in various fields, and the relationship between science Analogies with other forest sciences practical :	Theory: General introduction, metrology practical : Delete abnormal data	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks	Exams, Homework, Reports

		a9: Knows how to delete Anomalous data by finding Standard deviation of the da		and reports	
2	2Theory 3 Pract	Theory: a2: Familiar with the units used in measurement, how to convert between them, and measurement errors practical : c6: Draw and balance the curve	Theory: Units used in measurement and their systems practical : Draw and balance the curve	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
3	2Theory 3 Pract	Theory: a3: Understands diameter at dbh, diameter at different levels and diameter measuring devices practical a10: Learn about the devices for measuring the diameter of trees	Theory: Tree variables practical Diameter measurements trees	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
4	2Theory 3 Pract	Theory: a4: Identify tree tables in terms of basal area, average diameter, height and size practical : a11: Finds the basal area of trees and the basal area per unit area	Theory: Tree variables practical : Basal area	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
5	2Theory 3 Pract	Theory: C1: The measurement of the basal area of trees is applied, measuring the basal area per unit area practical : a12: Learn about the types of devices for measuring tree height and practice measuring height mathematically and in the field	Theory: Stand variables practical : Measuring tree heights	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
6	2Theory 3 Pract	Theory: a5: Describes the total height, crown center height, crown length, crown width practical : A13: Identify tree variables devices and practice them in the field	Theory: Measuring tree heights practical : Tree variables	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks	Exams, Homework, Reports

				and reports	
7	2Theory 3 Pract	Theory: c2: Uses height measuring devices practical : a14: He is familiar with the method of determining stem shape and practices it in the field	Theory: Measuring tree heights practical : Estimating the shape of the tree	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
8	2Theory 3 Pract	Theory: A6: Presents methods for studying the shape of a tree trunk (shape factor, shape point, shape quotient) practical : A15: Determines the age of trees and practices using an age measuring device in field	Theory: Tree stem shape practical : Age of trees	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
9	2Theory 3 Pract	Theory: a7: Explains volume units, methods for estimating the volume of the solid part of a wooden stack practical : a16: Different methods are used to measure volume	Theory: Volume units used to measure wood practical : Size measurement	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
10	2Theory 3 Pract	Theory: a8: The measurement of tree sizes is known for the wooden trunks of standing trees practical : c7: Uses different methods to measure volume mathematically	Theory: Measuring tree sizes for the wooden trunks of standing trees practical : Size measurement	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
11	2Theory 3 Pract	Theory: c3: Calculates the size of the tree (mathematical equations, graphical method displacement method, integration) practical : b3: Prepares local size tables	Theory: Measuring the size of trees practical : Size tables	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
12	2Theory 3 Pract	Theory: b1: Prepares tables of local	Theory: size tables	Theory : -Auditory method	Exams, Homework,

		sizes and methods for preparing them practical: b4: Prepares standard size tables	practical : Size tables	-Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Reports
13	2Theory 3 Pract	Theory: b2: Prepares tables of standard sizes and methods for preparing them practical : b5: Prepares form factor tables	Theory: Size tables practical : Form factor tables	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
14	2Theory 3 Pract	Theory: C4: Applies the method of analyzing the stem in terms of growth in diameter practical : A14: The computer is used to introduce statistical systems/laboratory	Theory: stem analysis method practical : Statistical system	Theory : -Auditory method -Style of writing on The blackboard. -Direct dialogue style Practical : Assigning tasks and reports	Exams, Homework, Reports
15	2Theory 3 Pract	Theory: c5: Applies the method of analyzing the stem in terms of growth in height practical : c8: The stem is analyzed by measuring tree variables, whether for standing or cut trees / in the field	Theory: stem analysis method practical : stem analysis	Theory : -Auditory method -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 %
	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.	% 10
	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)	Forest mensuration
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Main references (sources)	Forest mensuration
Recommended books and references (scientific journals, reports...)	

Teacher of Theory : Dr. Ammar Jasim Mohammed

Teacher of Practical : Faiza Ali Reasheed

Chairman of the Scientific Committee : Mohammed Younis Salim Al-Allaf

Head of the Dept. of Forestry Sciences:Dr. Muzahim