

Course Description Form

1. Course Name:					
Surveying					
2. Course Code:					
SURV120					
3. Semester / Year:					
Spring 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)					
1 Theoretical + 3 practical / 2.5 units					
7. Course administrator's name (mention all, if more than one name)					
Name: Dr. Karam Ali Younus ALtaee Email: karam.youns@uomosul.edu.iq Name: Hamed Muhammad Ibrahim					
8. Course Objectives					
theoretical: - 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	1 theoretical 3 Pract.	<p>theoretical: a1: A historical overview of surveying (the science of surveying is known - what are the types of surveying, surveying, units of measurement)</p> <p>practical : a9: Explains (settlement balance) a10: Explains (leveling screws) a11: Explains (the pillar) a12: Understand (endoscope)</p>	<p>theoretical: : space and its importance</p> <p>practical : Identify surveying devices</p>	<p>theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports</p>	Exams, Homework, Reports
2	1 theoretical 3 Pract	<p>theoretical: a2: Familiar with drawing standards, types, and methods of using them</p> <p>practical : b4: apply (use tape) b5: Use (the measuring wheel) b6: Explains (the use of signs)</p>	<p>Theoretical: drawing scales</p> <p>practical : Tools for direct measuring distances</p>	<p>Theory : -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports</p>	Exams, Homework, Reports
3	1 theoretical 3 Pract	<p>theoretical: c1: Calculates (methods for estimating lengths of distances - sources of measurement distances, direct measurement methods)</p> <p>practical a13: Explains (the use of signs) Explains (the use of signs) a14: Explains (the use of arrows) a15: Explains the use of wedges</p>	<p>theoretical: Direct measurement distances</p> <p>practical : Direct measuring tools accessories</p>	<p>theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports</p>	Exams, Homework, Reports
4	1 theoretical 3 Pract	<p>theoretical: b1: The measurement of distances applied (what are the types of measurement chain and tape - mention the accessories for direct measurement with the chain and tape)</p> <p>practical : a16: Concerned with (measuring horizontal distance on flat land)</p>	<p>theoretical: Metal chain and ribbon</p> <p>practical : Measuring horizontal distances</p>	<p>theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports</p>	Exams, Homework, Reports

				tasks and reports	
5	1 theoretical 3 Pract	theoretical: c2: Calculates (measuring horizontal distances on flat land) practical : b7: Contributes to the application of measuring horizontal distance on inclined lands (terraces).	theoretical: Measuring horizontal distances practical : Measuring horizontal distances on sloping terrain	theoretical: -Auditor methods, -Style of writing c The blackboard -Direct dialogue style Practical Assignin tasks and reports	Exams, Homework, Reports
6	1 theoretical 3 Pract	theoretical: c3: Calculate the horizontal distance sloping terrain (angle method - tern method - right triangle method) practical : b8: Measures (an obstacle that prevents monitoring but does not prevent measurement (ground elevation))	theoretical: Measuring horizontal distances on sloping terrain practical : Measure distances across obstacles	theoretical: -Auditor methods, -Style of writing c The blackboard -Direct dialogue style Practical Assignin tasks and reports	Exams, Homework, Reports
7	1 theoretical 3 Pract	theoretical: a7: Describes (what are its sources, number of types, mention its treatment) practical : b9: measures (an obstacle that prevents measurement, does not prevent monitoring, and cannot be circumvented (river, watercourse))	Theoretical: accuracy and error in measuring distances practical : Measure distances across obstacles	theoretical: -Auditor methods, -Style of writing c The blackboard -Direct dialogue style Practical Assignin tasks and reports	Exams, Homework, Reports
8	1 theoretical 3 Pract	theoretical: A5: Explains (an obstacle that prevents monitoring but does not prevent measurement (ground elevation) - obstacle that prevents measurement does not prevent monitoring and can be circumvented (the wide hole, small lakes, the edges of large lakes and ponds)) practical : b10: measures (an obstacle that prevents	theoretical: Measure distances across obstacles practical : Measure distances across obstacles	theoretical: -Auditor methods, -Style of writing c The blackboard -Direct dialogue style	Exams, Homework, Reports

		measurement and monitoring and can circumvented (rock, lake))		Practical Assignin tasks and repo	
9	1 theoretical 3 Pract	theoretical: a6: Explains (an obstacle that prevents measurement, does not prevent monitoring, and cannot be circumvented (river, watercourse, trenches) - an obstacle that prevents measurement and prevents monitoring (building, protruding rock)) practical a17: Explains (exploring the area) a18: Explains (selection of stations) b11: applied (marking stations) b12: Apply to use (measure distances	theoretica: Measuring distances across obstacles practical : Chain scanning steps	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
10	1 theoretical 3 Pract	theoretical: a7: Describes (control and investigation lines, survey steps, field notebook) practical : a19: Identify (a diagram of the survey lines and the name of the site) a20: Verify (date of field work carried out) a21: Write (the names of the field work team	theoretical: Chain scanning practical : Contents of the field notebook	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
11	1 theoretical 3 Pract	theoretical: b2: I implement (series mapping method - a scientific visit to the Department Roads and Bridges) practical: b13: Draw (straight boundaries with obstacles within the space) b14: Draw (straight boundaries with obstacle inside the space) b15: Draw (non-straight boundaries with no obstacles within the space) b16: Draw (non-straight boundaries with an obstacle inside the space)	theoretical: Chain scanning practical : Chain scanning methods	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
12	1 theoretical 3 Pract	theoretical: c4: It works (the basis of measurement what are the optical devices) practical: a22: Learn (the board and the triple ruler) a23: Learn (orientation ruler and draw	theoretical: Indirect measurement distances practical : Plane plate parts	theoretic -Auditor methods, -Style of writing c The blackboa	Exams, Homework, Reports

		board) a24: Rivet (leveling bubble and scale ruler)		-Direct dialogue style Practical Assigning tasks and reports	
13	1 theoretical 3 Pract	theoretical: c5: implements (measurement by electronic devices) practical : c1: applied (use tachometer) c2: The use of (theodolite) is applied.	theoretical: Indirect measurement distances practical : Indirect measuring devices and tools	theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports	Exams, Homework, Reports
14	1 theoretical 3 Pract	theoretical: a8: Identify (definitions of leveling devices, uses of leveling devices) practical : a25: Learn (an error in the length of instrument and failure to adjust measurement times) a26: Identify (non-straightness of measuring line and non-straightness of measuring tool) a27: It records (an error in recording data a difference in the intensity of pulling or tightening the measuring instrument, and a difference in temperature)	theoretical: Settlement practical : Some sources of errors when measuring	theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports	Exams, Homework, Reports
15	1 theoretical 3 Pract	theoretical: b3: Apply (methods for calculating leveling) practical : b17: Applies (field visits to some agricultural departments, such as Nine Agriculture, to learn about their surveying tools and benefit from some real experiences about field measurements and the obstacles they suffer from)	theoretical: Settlement practical : Field and field visits	theoretical: -Auditor 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 %	
	Final report theoretical + pract. Report	theoretical 15 weeks Pract. 1-15 week	7 theoretical + 6 pract.	% ١٣	

Short exam (1)	Week (3)	4 theoretical + 2 pract.	% ٦
Half exam (theoretical + pract.)	Week (9)	10 theoretical + 5 pract.	% ١٥
Short exam (2)	Week (12)	4 theoretical + 2 pract.	% ٦
Final exam (practical)	Exam pract.	20	% ٢٠
Final exam (theoretical)	Exam theoretical	40	% ٤٠
		100	% ١٠٠

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Book on the foundations of plane space and topography. F Saleh Al-Khafaf
Main references (sources)	Books related to flat space
Recommended books and references (scientific journals, reports...)	All sites related to space and topography

Theoretical subject teacher: Dr. Karam Ali Younus ALtaee

Practical subject teachers: M.M. Hamed Muhammad Ibrahim

Chairman of the Scientific Committee: Prof. Abdel Qader Abash Sabak

Head of the Department of Soil Sciences and Water Resources:
Dr. Ammar Younis Kashmoula

