

Course Description Form

1. Course Name:					
Surveying					
2. Course Code:					
SURV120					
3. Semester / Year:					
the first 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)					
2Theoretical + 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: - Carrying out field measurements - Identifying surveying tools and teaching students how to use them - Study the types of obstacles that hinder the measurement process - Direct measurement of distances and teaching students how to perform measurement processes - Using tools for indirect measuring distances and training students on them			Practical : - Training the student to use surveying tools - Training the student to practically carry out field measurements - Training the student on how to conduct distance measurements using direct and indirect methods		
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	2 theoretical 3 Pract.	theoretical: a1: A historical overview of surveying (the science of surveying is known - what are the types of surveying, surveying, units of measurement) practical : a9: Explains (settlement balance) a10: Explains (leveling screws) a11: Explains (the pillar)	theoretical: : space and its importance practical : Identify surveying devices	theoretic -Auditor methods -Style of writing The blackboard -Direct dialogue	Exams, Homework, Reports

		a12: Understand (endoscope)		style Practical Assignin tasks and repo	
2	2 theoretical 3 Pract	theoretical: a2: Familiar with drawing standards, t types, and methods of using them practical : b4: apply (use tape) b5: Use (the measuring wheel) b6: Explains (the use of signs)	Theoretical: drawing scales practical : Tools for direct measuring distances	Theory : -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
3	2 theoretical 3 Pract	theoretical: c1: Calculates (methods for estimating lengths of distances - sources of measu distances, direct measurement methods practical a13: Explains (the use of sig Explains (the use of signs) a14: Explains (the use of arrows) a15: Explains the use of wedges	theoretical: Direct measurement distances practical : Direct measuring tools accessories	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
4	2 theoretical 3 Pract	theoretical: b1: The measurement of distances applied (what are the types of measu chain and tape - mention the accesso for direct measurement with the chain tape) practical : a16: Concerned with (measuring horizontal distance on flat land)	theoretical: Metal chain and ribbon practical : Measuring horizontal distances	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
5	2 theoretical 3 Pract	theoretical: c2: Calculates (measuring horizo distances on flat land) practical : b7: Contributes to the application of measuring horizontal distance on inclin lands (terraces).	theoretical: Measuring horizontal distances practical : Measuring horizontal distances on sloping terrai	theoretic -Auditor methods, -Style of writing c The blackboa	Exams, Homework, Reports

				-Direct dialogue style Practical Assignin tasks and repo	
6	2 theoretical 3 Pract	theoretical: c3: Calculate the horizontal distance sloping terrain (angle method - term 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	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
7	2 theoretical 3 Pract	theoretical: a7: Describes (what are its sour 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	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
8	2 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 lake the edges of large lakes and ponds)) practical : b10: measures (an obstacle that prevents measurement and monitoring and can be circumvented (rock, lake))	theoretical: Measure distances across obstacles practical : Measure distances across obstacles	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
9	2 theoretical 3 Pract	theoretical: a6: Explains (an obstacle that prevents measurement, does not prevent monitoring, and cannot be circumvented (river, watercourse, trenches) - an obst	theoretica: Measuring distances across obstacles practical : Chain scanning steps	theoretic -Auditor methods, -Style of writing c	Exams, Homework, Reports

		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)		The blackboard -Direct dialogue style Practical Assigning tasks and reports	
10	2 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	theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports	Exams, Homework, Reports
11	2 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	theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports	Exams, Homework, Reports
12	2 theoretical 3 Pract	theoretical: c4: It works (the basis of measurement what are the optical devices) practical: a22: Learn (the board and the triple rule) a23: Learn (orientation ruler and drawing board) a24: Rivet (leveling bubble and scale ruler)	theoretical: Indirect measurement distances practical : Plane plate parts	theoretical: -Auditor methods, -Style of writing on The blackboard -Direct dialogue style Practical Assigning tasks and reports	Exams, Homework, Reports
13	2 theoretical 3 Pract	theoretical: c5: implements (measurement by	theoretical: Indirect measurement	theoretical: -Auditor	Exams, Homework,

		electronic devices) practical : c1: applied (use tachometer) c2: The use of (theodolite) is applied.	distances practical : Indirect measuring dev and tools	methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Reports
14	2 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	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	Exams, Homework, Reports
15	2 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	theoretic -Auditor methods, -Style of writing c The blackboa -Direct dialogue style Practical Assignin tasks and repo	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.	% 13
Short exam (1)	Week (3)	4 theoretical + 2 pract.	% 7
Half exam (theoretical + pract.)	Week (9)	10 theoretical + 5 pract.	% 10
Short exam (2)	Week (12)	4 theoretical + 2 pract.	% 7
Final exam (practical)	Exam pract.	20	% 20
Final exam (theoretical)	Exam theoretical	40	% 40
		100	% 100

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Book on the foundations of plane space and topography. R 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. Name: Dr. Karam Ali Younus ALtaee

Practical subject teacher: M.M. Hamed Muhammad Ibrahim

Chairman of the Scientific Committee: Dr. Arkan Muhammad Amin Siddiq

Head of Agricultural Machinery and Machinery Department: A. M . Dr. Nofal Issa Muhaimid

