

Ministry of Higher Education and Scientific research



Department of Water Resources Engineering

College of Engineering

Salahaddin University – Hawler

Subject: Surveying 1

Course Book –Year 2

Lecturer's name: ARKAN HAMZA IBRAHIM

Academic Year: 2020 -2021

Course Book

1. Course name	Surveying 1
2. Lecturer in charge	ARKAN HAMZA
3. Department/ College	
4. Contact	e-mail:arkan.ibrahim@su.edu.krd
5. Time (hr. / week)	Theory: 2 Practical: 2
6. Office hours	
<p>7. Course overview:</p> <p>Student is introduced to Engineering Surveying including profile, cross section, contour lines with maps, volume and area, Traversing and Curves. Students are expected at the end of the year will have the abilities:</p> <ol style="list-style-type: none"> 1- To use all types of the surveying instruments. 2- To find the profile and cross sections before and after design. 3- To find the reservoirs volume. 4- To land grading for any work. 5- To draw contour map of any area. 6- To find area and volume for any earth work. 	
<p>8. Course Objective:</p> <p>Give information about surveying and their problem, and studies levelling, profile and cross section and contour lines with maps and volume and area and Traversing and Curves by instruments (level, theodolite and total station) and principles of surveying and any problems.</p>	
<p>9. Student's Obligation</p> <ol style="list-style-type: none"> 1- The attendance at least 12 weeks in a semester. 2- Completion of all home works. 3- Report every week. 4- Two semester exams 	

10. Forms of Teaching

Different forms of teaching will be used to reach objectives of the course: worksheet will be designed to let the chance for practicing on several aspects of the course in the classroom.

To get the best of the course, it is suggested that you attend classes as much as possible, read the required lectures, teaching notes regularly as all to them are foundations for the course Lecture's are for supporting and not for submitting the reading material including the handouts. Try as much as possible to participate in classroom discussions preparing the assignment given the course, same time use data show.

11. Assessment Scheme

The students are required to do "2" closed book exam each one has 13 marks, the home works, daily exams and classroom activities count 4 marks, practice 10 marks, there will be a final exam on 60 marks.

12. Course Reading List:

- 1- " Engineering Surveying", by W. Schofielf and M. Breach.
- 2- " Surveying for construction ", by William Irvine and Finelay Mclennan.
- 3- " Elementary Surveying", by Paul R. wolf and Russell C. Brinckler.

26 Weeks: From the 15th of October to 15th of May

1st Week	Introduction
2nd Week	Types of Surveying
3rd Week	Linear measurement
4th Week	Levelling
5th Week	Reciprocal Levelling
6th Week	Profile Levelling
7th Week	Cross Section

8th Week	Area & Volume of Earthwork
9th Week	Mass Haul Diagram
10th Week	Theodolite Survey
11th Week	Traverse
12th Week	Curves