

Department of Building Engineering			
Surveying Lab (68209)			
Total Credits		1	
major compulsory			
Prerequisites		P1 : Surveying (68200) P11Synch. : Surveying (68200)	
Course Contents			
conduct field exercises using the various types of traditional surveying equipment and analyze and interpret data (measurements).			
Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	Conduct field exercises using the various types of traditional surveying equipment and analyze and interpret data (measurements). They should also be able to report the results of measurement in a the form of a map.	B	90 %
2	Work as part of a team.	D	10 %
Textbook and/ or References			
Surveying for Engineers by: Dr. Najeh S. Tamim, 2nd edition, 2006.			
Assessment Criteria		Percent (%)	
Laboratory Work		60 %	
Final Exam		40 %	
Course Plan			
Wee k	Topic		
1	Basic map elements		
2	Introducing the equipment used in chain surveying, and training the students to use these equipment in the right way, and measurement of lines.		
3	Making lines at right angles to other lines and surveying of an un-built area		
4	Surveying of a built-up area and the production of a large scale map.		
5	Introducing the equipment used in leveling, and training on the setup of the level and measuring height difference between points		
6	Making a longitudinal section as well as cross sections of an existing road		
7	Checking the level for the existence of collimation error + Reciprocal leveling		
8-9	Preparing a contour map of an un-built area using the gridding method.		
10	Training on the setup of the theodolite		
11	Training on the setup of the theodolite + Measuring horizontal and vertical angles, measuring the 3 horizontal angles in a triangle		
12	Measuring object heights, horizontal distances and elevation differences.		
13-14	Mapping details (land parcel with a building) using the principles of coordinate geometry.		
15	Final Exam (Practical + Theoretical)		