

COURSE PLAN

FIRST: BASIC INFORMATION

College

College	: Karak University College
Department	: Department of Basic and Informatics Sciences

Course

Course Title	: Surveying Lab.
Course Code	: 020112122
Credit Hours	: 2 (0 Theoretical, 2 Practical)
Prerequisite	: 020112123

Instructor

Name	: Esra' Fawaz AlAyed
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Office Hours	: -
Class Times	

Text Book

- Title: principles of surveying (practically side) , Eng.Mona alfaoure , 2015, Arab society library ,Amman ,Jordan.

References

- Origins of Surveying - Eng. Razan Abu Saleh, The Arab Society Library for Publishing and Distribution 2015
- Origins of Surveying - Dr. Youssef Siam
- Practical Area / Beirut - Dar Al-Ratib, Mahmoud Rashad Mustafa

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course covers practical methods of various surveying methods and error correction to obtain accurate location information. And, It provide practices to obtain measurement results and create drawings using Total Station, Level, and Theodolite.

COURSE OBJECTIVES

The objective of this course is to enable the student to do the following:

- Use the level device and perform Levelling
- Use the theodolite device and perform stadia surveying
- Use the Total station to determine 3D positions
- Calculate area and volume
- Discriminate the cause of the error and correct the error.

COURSE LEARNING OUTCOMES

On successful completion of this course, students are expected to be able to:

- CLO1. Recognize the basics of surveying
- CLO2. Recognize accurate distance measurement methods and correct observation results
- CLO3. Recognize the meaning of levels and perform leveling and error correction
- CLO4. Recognize the characteristics of Theodolite equipment and perform stadia surveying
- CLO5. Explain how to solve problems that may arise in the field of surveying
- CLO6. Acquire 3D location information using Total Station

COURSE SYLLABUS

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
1	Introduction	<ul style="list-style-type: none"> • Methods for surveying • Surveying tools • Setting up and dropping a column by prism. 	CLO1	
2	Distance Measurement	<ul style="list-style-type: none"> • Measuring distance between points • Taping • EDM 	CLO2	
3	Levelling	<ul style="list-style-type: none"> • Methods to use level device • Read the staff • How to set a staff 	CLO3	
4	Levelling	<ul style="list-style-type: none"> • Measuring Height • Reduce level for points in field 	CLO3	
5	Levelling	<ul style="list-style-type: none"> • Reciprocal levelling • Applications 	CLO3	
6	Stadia Surveying	<ul style="list-style-type: none"> • Methods to use theodolite device • Reading and measuring vertical and horizontal angles 	CLO4	
7	Stadia Surveying	<ul style="list-style-type: none"> • Finding target points • Calculating Distance and Height 	CLO4	
8		Mid-term Exam		
9	Stadia Surveying	<ul style="list-style-type: none"> • Applications • Comparing outcome with other surveying 	CLO4	
10	Total station	<ul style="list-style-type: none"> • Characteristics • Training how to set equipment 	CLO5	

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
11	Total station	<ul style="list-style-type: none"> Targeting Learn manual 	CLO5	
12	Total station	<ul style="list-style-type: none"> Measuring Saving observation data 	CLO5	
13	Total station	<ul style="list-style-type: none"> Surveying the Construction Site Draw using CAD 	CLO5	
14	Total station	<ul style="list-style-type: none"> Field Surveying Draw using CAD 	CLO6	
15	Total station	<ul style="list-style-type: none"> Field Surveying include facilities Draw using CAD Comparing digital drawing map to surveying outcome 	CLO6	
16		Final exam		

COURSE LEARNING RESOURCES

Teaching will be achieved using available resources including Lectures, data show and include manual uploaded to the e-learning system and term projects.

ONLINE RESOURCES

A lot of references and learning videos and codes are available on the internet. The student could refer to them for more information.

ASSESSMENT TOOLS

	ASSESSMENT TOOLS	%	
	homework's and Quizzes	30	
	Mid Exam	20	
	Final Exam	50	
	TOTAL MARKS	100	

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

**GRADING SYSTEM****Example:**

Grade	points
-	

REMARKS

Use of Mobile Devices, Laptops, etc. During Class, unexpected noises and movement automatically divert and capture people's attention, which means you are affecting everyone's learning experience if your cell phone, laptop, etc. makes noise or is visually disturbing during class. For this reason, students are required to turn off their mobile devices and close their laptops during class.

Academic Integrity. Copying assignments, allowing assignments to be copied, will fail the assignment on the first offense. Cheat in tests, or copying assignments for the second time.

Cite all sources consulted to any extent (including material from the internet), whether or not assigned and whether or not quoted directly.

Project: Students will undertake a term project to study in detail one of the course topics. The project may involve a critical literature review or a case study. The students should consult at least five (5) references or journal articles. A written project report of 10 pages maximum will be submitted in nominated dates. Ten-minute presentation will be given to the rest of the class during the last two weeks of the semester.

Formats, Rules, Topics, submission and presentation dates are illustrated in project form.

COURSE COORDINATOR**Course Coordinator****Signature:****Date:****Department Head:****Signature:****Date:**