

TISHK INTERNATIONAL UNIVERSITY
FACULTY OF ENGINEERING
Department of ARCHITECTURE,
2021-2022 Fall
Course Information for ARCH 224 SURVEY

Course Name:	SURVEY				
Code	Regular Semester	Theoretical	Practical	Credits	ECTS
ARCH 224	4	1	2	2	2
Name of Lecturer(s)- Academic Title:	Asma Abdulmajed Mustafa - MSc				
Teaching Assistant:	Ms. Parez, Danya				
Course Language:	English				
Course Type:	Main				
Office Hours	1 Hour				
Contact Email:	asmaa.abdulmajed@tiu.edu.iq				
	Tel:0000000				
Teacher's academic profile:	000000000				
Course Objectives:	This course will introduce the fundamentals of surveying measurements to provide a broad overview of the surveying instrumentation (level), measurements, corrections, reduction and computations that are required to produce a topographical map or a site plan for engineering and design projects. Also with proper field procedures for basic surveying which include taking field notes, taping and leveling. The overall course is designed to make the students able to learn and understand the theory and field procedure by applying suitable surveying methods to produce map.				
Course Description (Course overview):	Covers static and Mechanic forces analysis. Introduces scalars and vectors with applications to the study of forces, moments, and couples. Stresses free body diagrams with engineering examples.				
COURSE CONTENT					
Week	Hour	Date	Topic		
1	1	4-7/10/2021	Starting Fall Semester -		
2	1	10-14/10/2021	Introduction and Basics of Surveying		
3	1	17-21/10/2021	Introduction and Basics of Surveying		
4	1	24-28/10/2021	Level and Leveling		
5	1	31/10-4/11/2021	Level and Leveling		
6	1	7-11/11/2021	Methods of Leveling- HI method		
7	1	14-18/11/2021	Midterm Exam		
8	1	21-25/11/2021	Midterm Exam		
9	1	28/11-2/12/2021	Methods of Leveling- HI method		
10	1	5-9/12/2021	Methods of Leveling- Rise and Fall Method		
11	1	12-16/12/2021	Methods of Leveling- Rise and Fall Method		
12	1	19-23/12/2021	Profile and cross section leveling		
13	1	26-30/12/2021	Profile and cross section leveling		
14	1	2-5/1/2022	Review of the course		
15	1	9-13/1/2022	Final Exam		
16	1	16-20/1/2022	Final Exam		
COURSE/STUDENT LEARNING OUTCOMES					
1	Demonstrate the ability to work within a team environment.				

- 2 Prepare accurate, legible and complete notes in a well-prepared field book.
- 3 Students will learn surveying techniques that will remain current for long periods of time.
- 4 Students learn how surveying data may be stored and retrieved for a variety of purposes.
- 5 Students learn how surveying data is clearly and ethically reported.

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Proficient, A: Advanced)

Program Learning Outcomes

Cont.

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|----|---|---|
| 1 | Apply problem-solving skills in the architectural context. | I |
| 2 | Demonstrate knowledge of architectural history, theory, and practice in solving architectural design problems. | P |
| 3 | Utilize freehand drawing, architectural graphics, and model building skills in solving architectural design problems. | |
| 4 | Utilize the computer as a tool in a wide range of documentation and presentation applications, using CAD, 3-D visualization and rendering, electronic image composition and editing software. | P |
| 5 | Apply knowledge of mathematics, science, engineering and technology in solving architectural design problems. | P |
| 6 | Develop designs that meet desired needs within realistic economic, social, political, and cultural constraints. | I |
| 7 | Develop designs that fulfill the environmental, health & safety, and sustainability considerations. | |
| 8 | Demonstrate team-working skills and show the ability to work collaboratively with various design teams involved in the building industry, and collaborate and negotiate with clients. | |
| 9 | Demonstrate the necessary knowledge for applying laws, codes, regulations, standards and practices in relation to building construction systems. | |
| 10 | Show their ideas through high quality drawing skills and artistic sense. | I |
| 11 | Utilize their skills to address professional and ethical responsibilities, diversity and commitment to the work field. | |
| 12 | Suggest solutions and techniques for engaging in life-long learning and knowledge about contemporary issues. | |

Prerequisites (Course Reading List and References):

Simple Mathematics

Student's obligation (Special Requirements):

Scientific calculator, lecture notes

Weekly Laboratory/Practice Plan:

Week	Hour	Date	Topics
1	2	4-7/10/2021	Starting Fall Semester -
2	2	10-14/10/2021	Introduction and History of Surveying and Surveying Instruments
3	2	17-21/10/2021	Practical -1- Distance Measurements by Taping and Pacing
4	2	24-28/10/2021	Practical -1- Distance Measurements by Taping and Pacing
5	2	31/10-4/11/2021	Practical -2- Simple Leveling
6	2	7-11/11/2021	Practical -2- Simple Leveling
7	2	14-18/11/2021	Practical -3- Permanent Adjustment of Level
8	2	21-25/11/2021	Mid Term Exam
9	2	28/11-2/12/2021	Practical -3- Permanent Adjustment of Level
10	2	5-9/12/2021	Practical -4- Differential Leveling
11	2	12-16/12/2021	Practical -4- Differential Leveling
12	2	19-23/12/2021	Practical -5- Profile and Cross sectional Leveling
13	2	26-30/12/2021	Practical -5- Profile and Cross sectional Leveling
14	2	2-5/1/2022	Review of the Course
15	2	9-13/1/2022	Final Exam

	16	2	16-20/1/2022	Final Exam
Course Book/Textbook:	"Surveying , Problem Solving with Theory and Objective Type Questions", by Dr. A. M. Chandra, 2005. "Surveying with Construction Application", Barry F. Kavanagh, 7th Edition, Prentice Hall, 2010.			
Other Course Materials/References:	"The Principles of Surveying" , by J. Clendinning, 2nd Edition, 1960. "Engineering Surveying", by W. Schofield and M. Breach, 6th Edition, 2007.			
Teaching Methods (Forms of Teaching):	Lectures, Practical sessions, Exercises, Assignments, , ,			
COURSE EVALUATION CRITERIA				
Method			Quantity	Percentage (%)
Quiz			1	10
Homework			1	10
Midterm Exam			1	30
Laboratory			1	10
Final Exam			1	40
			Total	100
Examinations: True-False, Definition, Calculation questions,				
Extra Notes:				
ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD				
Activities			Quantity	Workload Hours for 1 quantity*
Theoretical Hours			16	1
Practical Hours			16	2
Final Exam			1	
Quiz			1	32
Homework			1	16
Midterm Exam			1	16
Laboratory			1	0
Total Workload				96
ECTS Credit (Total workload/25)				3.84

Peer review

Signature:

Name:

Lecturer

Signature:

Name:

Head of Department

Signature:

Name:

Dean