



**Jordan University of Science and Technology**  
**Faculty of Architecture And Design**  
**Architecture Department**

ARCH343 Surveying - JNQF Level: 7

Second Semester 2024-2025

**Course Catalog**

3 Credit Hours. Surveying is the technique, profession, and science of determining the terrestrial or three dimensional position of points and the distances and angles between them. These points are usually on the surface of the earth, and they are often used to establish land maps and boundaries for ownership, locations like building corners or the surface location of subsurface features, or other purposes required by government or civil law, such as property sales. This course provides a broad understanding of the skills related to the principles of surveying, linear measurement, chain surveying, leveling and its application, profiles and cross sections, Areas, volumes. Measurements of angles, traverse surveys, tachometry and electronic distance measurements ( EDM ) .

**Teaching Method:** Blended

**Text Book**

<b>Title</b>	Introduction to Surveying
<b>Author(s)</b>	Subhash Chander
<b>Edition</b>	1st Edition
<b>Short Name</b>	1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
2	Fundamentals of Surveying	Milton O. Schmidt	3rd Edition	
3	Fundamental of surveying	yousifsyam	1st Edition	

**Class Schedule & Room**

Section 1:  
 Lecture Time: U : -  
 Room:

**Prerequisites**

Line Number	Course Name	Prerequisite Type
2212010	ARCH201 Computer Aided Design (1)	Prerequisite / Study

**Tentative List of Topics Covered**

Weeks	Topic	References
Week 1	Introduction to Surveying	From 2
Week 2	Mathematics in Surveying	From 2
Weeks 3, 4	Theory of Errors	From 2
Week 5	Tape and Distance Measurements	From 2
Weeks 6, 7	Leveling; its applications and contour lines	From 2, From 3
Week 8	Areas and Volumes	From 3
Weeks 9, 10	Theodolite, Stadia, Total Station, Contour Maps, and Plane Table	From 2, From 3
Week 11	Mapping and Topography	From 3
Weeks 12, 13	Overview of new advanced technology in surveying	From 2, From 3
Weeks 14, 15	Earthwork in constructions	From 2, From 3

**Mapping of Course Outcomes to Program Outcomes and NQF Outcomes**

**Course Outcome Weight (Out of 100%)**

**Assessment method**

-Identify the basic principles of surveying, measurements, chain surveying -Understand the theory of errors and adjustments [1B.B2] [1L7K1]	30%	
-Recognize the principle of leveling and its application in contouring, profiles and cross-sections [1B.B2] [1L7K1]	20%	
-Identify the earth work computation. [1B.B4] [1L7S1]	10%	
-Solve differential leveling problems and recognize different types of obstacles during measurements. [1B.B4] [1L7S2]	20%	
Demonstrate the concepts of GIS, GPS, tachometry, and Electronic distance measurements [1B.B2, 1B.B4] [1L7C1]	10%	
Recognize different advanced and smart applications in surveying [1B.B2, 1B.B4] [1L7S2]	10%	

Relationship to Program Student Outcomes (Out of 100%)																									
A.A1	A.A2	A.A3	A.A4	A.A5	A.A6	A.A7	A.A8	B.B1	B.B2	B.B3	B.B4	B.B5	B.B6	B.B7	B.B8	B.B9	B.B10	C.C1	C.C2	C.C3	D.D1	D.D2	D.D3	D.D4	D.D
									60		40														

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7C1
50	10	30	10

Evaluation	
Assessment Tool	Weight
Midterm Exam	30%
Homework	20%
Final Exam	50%

Policy	
Evaluation	Three exams will be held during the semester: 1-Midterm Written Exam 30% 2-Assignment and Quizzes 20% 3-Final Exam Written Exam 50% Total 100%
Homeworks and presentation	In order to receive credit for your work, all homework problems must be presented in a clear, organized manner. -Solutions must show evidence of work; magic answers will not be accepted. -Each person must submit their own assignment. -HW Assignments -Each person must submit their own presentation about any topic related to surveying

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