



Jordan University of Science and Technology
Faculty of Engineering
Civil Engineering Department

CE341 Surveying - JNQF Level: 7

First Semester 2023-2024

Course Catalog

3 Credit Hours. 3 Credit hours (3 h lectures). Principles of surveying; linear measurements, chain surveying, leveling and its application in contouring, profiles and cross-sections. Areas, volumes, and earthwork. Measurement of angles; traverse surveys. Theory of errors and adjustments.

Text Book

Title	Fundamentals of Surveying
Author(s)	M. Schmidt and K. Wong
Edition	3rd Edition
Short Name	Ref 1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref 2	Surveying Practice	Ph. Kissam	3rd Edition	
Ref 3	Elementary Surveying	Ch. Ghilani and P. Wolf	13th Edition	
Ref 4	Surveying of Civil Engineer	Ph. Kissam	2nd Edition	
Ref 5	Fundamentals of Surveying	Y. Syam	1st Edition	
Ref 6	Traffic and Highway Engineering	N. Garber and L. Hoel	4th Edition	

Instructor

Name	Dr. BARA' AL-MISTAREHI
Office Location	-

Office Hours	Sun : 10:00 - 12:00 Mon : 08:00 - 10:00 Tue : 10:00 - 13:00 Wed : 08:00 - 10:00
Email	bwmistarehi@just.edu.jo

Instructor	
Name	Dr. Aslam Alomari
Office Location	C2L1
Office Hours	Sun : 11:30 - 12:30 Mon : 13:00 - 15:00 Tue : 12:30 - 13:30 Tue : 14:30 - 15:30 Thu : 12:30 - 13:30
Email	aaalomari3@just.edu.jo

Class Schedule & Room
<p>Section 1: Lecture Time: Sun, Tue, Thu : 13:30 - 14:30 Room: C3015</p> <p>Section 2: Lecture Time: Mon, Wed : 13:00 - 14:30 Room: C3018</p>

Prerequisites		
Line Number	Course Name	Prerequisite Type
822350	HSS235MATH Probability & Statistics(For Engineering Students)	Prerequisite / Study
902350	MATH235 Probability & Statistics(For Engineering Students)	Prerequisite / Study
902010	MATH201 Intermediate Analysis	Pre./Con.

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction: Basics of surveying	
Weeks 2, 3	Errors in surveying operations, Precision, & Accuracy	
Weeks 3, 4	Tape Measurement: Distance Measurements & Chain Surveying	
Weeks 4, 5	Leveling: General, Profile Leveling, Cross-section Leveling	
Week 6	Angles measurements and bearings	
Weeks 7, 8	Coordinate Geometry	
Weeks 8, 9	Traverses	

Week 10	Stadia and Total Station, contour maps and Plane Tables	
Weeks 11, 12	Areas and Volumes	
Weeks 13, 14	Earthworks and Mass Haul Diagram	
Week 15	Electronic Distance Measurement.	
Week 15	Land Survey	
Week 16	Horizontal control survey (Triangulation)	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
To define surveying and to introduce its basic principles. [1SO1] [1L7K1]	25%	
To acquaint use of surveying instruments and devices [1SO1] [1L7S2]	25%	
To deal with linear and non-linear measurements and their errors [1SO1] [1L7S2]	25%	
To develop student proficiency in basic surveying calculations [1SO1] [1L7K1]	25%	

Relationship to Program Student Outcomes (Out of 100%)						
SO1	SO2	SO3	SO4	SO5	SO6	SO7
100						

Relationship to NQF Outcomes (Out of 100%)	
L7K1	L7S2
50	50

Evaluation	
Assessment Tool	Weight
Final Exam	100%

Policy	
Academic Honesty	<p>a) Homework: Students may work together on homework assignments and are encouraged to help each other with them. However, blind copying of assignments is not permitted. Copying of homework will be considered an act of scholastic dishonesty and will receive zero credit for that assignment.</p> <p>b) Exams: Students have the responsibility of avoiding the appearance of cheating during tests, e.g., clearing desk top of all unauthorized material, putting all unauthorized study materials out of view, and keeping their eyes on their own work.</p> <p>Violations of academic honesty on exams will result in punishment ranging from a grade of zero to a grade of F in the course.</p>

Attendance Policy	In accordance with the University Regulations, the students must attend all classes on the time of lectures. Failure to attend classes without prior approval for whatever reason is considered as part of the percentage missed. Attendance records are kept, and if a student is absent for more than 20% of the total contact hours without an excuse accepted by the faculty dean, he will fail.
Exams Attendance	It is the student's responsibility to be fully aware of exams dates. Only sound reasons will be accepted for being absent from an exam. For authorized absences, the instructor will give a makeup test. For unauthorized absences, the instructor will decide on a course of action depending on the circumstances. Lost of credit for the missed test is a possible course of action.

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