

Department of Civil Engineering			
Mechanics of Materials Lab. (61208)			
Total Credits	1		
major compulsory			
Prerequisites	P1 : Mechanics of Materials (61207) P11Synch. : Mechanics of Materials (61207)		
Course Contents			
Laboratory applications and experiments to the topics covered in the course mechanics of materials.			
Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	An ability to write a scientific report and to work as teams in performing experiments in the area of mechanics of materials.	G	15 %
2	An ability to collect and analyze experimental data demonstrating principles of statics and mechanics of materials.	B	55 %
3	An ability to measure and quantify mechanical behavior of materials under the effects of bending, torsion and axial stresses.	E	20 %
4	An ability to quantify and draw diagrams for stress-strain relation of engineering materials (mainly steel).	K	10 %
Textbook and/ or References			
Jardaneh, I; Tubeileh, H. Strength of Material Laboratory Manual, An-Najah National University, 2013.			
Assessment Criteria		Percent (%)	
Mid. Term Exam		20 %	
Reports		40 %	
Final Exam		40 %	
Course Plan			
Week	Topic		
1	Equilibrium of Forces Test		
2	Equilibrium of Beams Test		
3	Member Forces in Truss Test (Theory Only)		
4	Shear in Rubber Test		
5	toggle point		
6	Tensile Strength Test		
7	Extension of wires.		
8	Mid Term Exam		
9	Simple Suspension Bridge Test		
10	Torsion Test		
11-12	Deflection of Beams Test		
13	Combined loading Exp.		
14	Column buckling test		
15	Final Exam		