

## APPENDIX A : COURSE SYLLABI

Course number and name	CE 111-3: Statics
Credits hours	3 Credit hours
Contact hours	4 Contact hours; 2 for lecture, and 2 for tutorial
Instructor name	Dr. Abdalla Mostafa Sabaa, Dr. Mohammed Mutnbak, and Dr. Mohammed Shubaili.
Textbook	Engineering Mechanics - Statics, 14th ed., Hibbeler, Prentice Hall, 2015 Vector Mechanics for Engineers - Statics, 8 th Edition, Beer, Johnston & Eisenberg, McGraw-Hill, 2004.
Other supplemental materials	Digital library of jazan university, <a href="http://deanships.jazanu.edu.sa/lib/Pages/Default.aspx">http://deanships.jazanu.edu.sa/lib/Pages/Default.aspx</a>
<b>Specific Course information</b>	
Catalog description	This course introduces an introduction vectors and scalars and applies the parallelogram laws. Through this course student Calculate the reactions and the moment using the equilibrium equations for 2-D. This course will the forces in truss members using method of joints and method of sections and recognize the zero force members in trusses. The student will be able Analysis of bodies to evaluate center of gravity of masses, centroid of lines and areas. In addition, he will be Calculate moments of inertia for a single area, and the utilization of parallel axes theorem to compute centroidal moments of inertia for composite areas. Friction.
Prerequisite	PHYS 112-4: General Physics
Required / Elective	Required
<b>Specific Goals for the Course</b>	
Course Learning Outcomes (CLOs)	<p><b>By the end of this course, the student should be able to:</b></p> <p><b>CLO#1</b> Apply the basic principles of engineering mechanics vectors and scalars.</p> <p><b>CLO#2</b> Determine the resultant of coplanar and space force systems.</p>

	<p><b>CLO#3</b> Compute the internal forces of determinant beams.</p> <p><b>CLO#4</b> Calculate the forces in truss members using method of joints and method of sections.</p> <p><b>CLO#5</b> Evaluate geometrical properties of composite areas.</p> <p><b>CLO#6</b> Define the basic principles of friction.</p>
List of topics to be covered	<p>General principles of engineering mechanics vectors and scalars and applies the parallelogram laws.</p> <p>Determine the resultant of coplanar and space force systems.</p> <p>Distinguish between concurrent, coplanar and space force systems, Draw free body diagrams</p> <p>Analyze the reactions and pin forces induces in coplanar and space systems using equilibrium equations and free body diagrams</p> <p>calculate the forces in truss members using method of joints and method of sections and recognize the zero force members in trusses.</p> <p>Determine the centroid of plane areas and volumes.</p> <p>Determine the moment on inertia for different area shapes.</p> <p>Friction</p>

**CLO-SO Map( USE "√ " TO SHOW THE RELATIONSHIP)**

	<b>S01</b>	<b>S02</b>	<b>S03</b>	<b>S04</b>	<b>S05</b>
<b>CLO 1</b>	√				
<b>CLO 2</b>	√				
<b>CLO 3</b>	√				
<b>CLO 4</b>	√				
<b>CLO 5</b>	√				
<b>CLO 6</b>	√				