


Sub.	Course Description – توصيف مقرر دراسي	الموضوع	 <b>كليات المعرفة</b> ALMAAREFA COLLEGES
Date		التاريخ	

Course Code & No	ENGR 203		رقم المقرر ورمزه
Course Name	Static		اسم المقرر
Credit Hours	3 (3+1+0)		عدد الساعات المعتمدة
Pre-requisite	MATH 201, MATH 202		المتطلب السابق

<b>General Description</b>	توصيف عام
Force systems; vector analysis, moments and couples in 2D and 3D. Equilibrium of force systems. Analysis of structures; plane trusses and frames. Distributed force system; centroids and composite bodies. Area moments of inertia. Analysis of beams. Friction.	

<b>Course Objectives</b>	أهداف المقرر
The course aims to provide the knowledge and skills for force system, moments and couples, structures, truss analysis, moment of inertia, and friction forces.	
<b>By the end of the course, each student should be able to</b> <ul style="list-style-type: none"> <li>• Recognize methods of calculating forces, moments</li> <li>• Solve the practical engineering problems related with truss, and structures</li> <li>• Analyze force system and friction.</li> </ul>	

<b>Course Outlines</b>	مفردات المقرر
<ul style="list-style-type: none"> <li>• Force System</li> <li>• Vector Analysis</li> <li>• Moments and couples in 2D and 3D</li> <li>• Equilibrium of force systems</li> <li>• Analysis of structures; plane trusses and frames</li> <li>• Distributed force system; centroids and composite bodies</li> <li>• Moments of inertia and Analysis of beams</li> <li>• Friction</li> </ul>	

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References	المراجع
<b>Required Textbooks</b> Engineering Mechanics; Meriam L, Kraige L.G., Volume 1, latest Edition, Wiley, ISBN-13: 978- 0470917879  <b>Essential References Materials</b> Engineering Mechanics: Statics; Hibbeler R.C., Latest Edition, Prentice Hall, ISBN-13: 978- 0136077909	