

  
**AMOU UNIVERSITY**  
**“A Vehicle for Peace and Development”**  
**AMOU UNIVERSITY**



**FACULTY OF ENGINEERING**

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING**  
**ACADEMIC YEAR 2015/ 2016**

**COURSE DESCRIPTION**

<b>CENG 334</b>	<b>Strength of Materials</b>	
Contact Hours	3	
Pre-requisite	N/A	
Purpose/Aim	Develop and apply various analytical methods for determining the mechanical behavior of solid bodies (for example: stress, strain, strength, stiffness, deflection, and stability) subjected to various types of loading which include: axial loading, bending, shear, torsion, or a combination.	
Course Objective (Indicative Learning Outcomes)		
Course Content	<ul style="list-style-type: none"> <li>• Apply knowledge of mathematics, science, and engineering dealing with mechanics of materials under axial loading, torsion, bending, and combined loading.</li> <li>• Draw axial force, torque, shear and moment diagrams of simple members subject to combined loading.</li> <li>• Compute stresses and strains in simple members subject to axial loading, torsion, bending, and combined loading.</li> <li>• Compute deflection of beams.</li> <li>• Compute buckling load of compressive members.</li> <li>• Design components to meet desired needs in terms of strength and deflection</li> </ul>	
Learning & Teaching Methodologies	Lectures, tutorials and computer laboratory exercises	
Instructional Materials/Equipment	Classroom with audio visual aids Computer laboratory	
Course Assessment	<b>Type</b>	<b>Weighting (%)</b>
	Final Examination	60
	Mid Term Examination	20
	Assignment	10
	Attendance	10



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	Total	100	
Recommended Reading	<b>Title</b>	<b>Author</b>	<b>Publisher</b>
Additional Reading			
Other Support Material	A variety of multimedia systems and electronic information resources as prescribed by the lecturer. Various application manuals, URL search and journals.		