

FCE 231: Strength Of Material IA Course Description

The course covers the following key areas; Direct stress and Strain - elasticity and plasticity. Stress resultants. Stresses in members subjected to axial force, bending, shear and torsion. Section properties. Symmetrical and unsymmetrical bending of beams. Deflection of beams. Analysis of stress and strain - Mohrs circle of stress and strain. Thin walled pressure vessels. Labs: Unsymmetrical bending of cantilever; shear centre of a channel; Deflection of beams - steel, hardboard, perspex, aluminium.