

Topic: Bending and Stresses in Beam

Relevant Course: Strength of Materials / Mechanics of Solids / Solid Mechanics

Department: Mechanical Engg., Civil Engineering, Aerospace Engineering, Automobile Engineering

Relevant Semester: 3rd / 4th

Pre-requisite: Engineering Mechanics

Topic Description: Euler-Bernoulli beam assumption, Shear force and bending moment in beam, Shear force and bending moment diagram, Bending stress in beams

Differential equation for beam deflection, Method of superposition, Statically indeterminate beams

Reference: Elements of Strength of Materials by S. P. Timoshenko & D. H. Young