

COURSE CODE: ENGMEC3

COURSE TITLE: Mechanics of Deformable Bodies

DEPARTMENT: Civil Engineering

TEXTBOOK: Mechanics of Materials, 3rd Ed. SI Version, T. A. Philpot, 2014, Wiley and Sons

Other references:

Strength of Materials, 4th Ed. Singer and Pytel

Mechanics of Materials, 8th Ed. R.C. Hibbeler, 2010, Prentice Hall

READING LIST:

- ENGMEC1 concepts – force components, moment, equilibrium, centroid, moment of inertia
- Simple Stress
- Strain and Deformation
- Thermal Strain and Deformation
- Equilibrium of Beams
- Bending Stress in Beams
- Shear Stress in Beams
- Torsion
- Thin-walled Pressure Vessels
- Stress Transformation
- Combined Loadings

REQUISITE EQUIPMENT/MATERIALS FOR THE COURSE: None