

COURSE CODE: **ENGMEC3**

COURSE TITLE: Mechanics of Deformable Bodies

DEPARTMENT: Civil Engineering

TEXTBOOKS:

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

REFERENCE BOOKS:

- Strength of Materials, 4th Ed. Singer and Pytel
- Mechanics of Materials, 8th Ed. R.C. Hibbeler, 2010, Prentice Hall

READING LIST:

- Simple Stresses: Normal, Shear, and Bearing Stress
- Strain and Deformation
- Axial Deformation – statically determinate and statically indeterminate members
- Thermal strain and thermal deformation
- Equilibrium of beam
- Bending stress in beams
- Shear stress in beams
- Torsion
- Thin-walled pressure vessels
- Stress transformation
- Combined loadings