

## **FCE 201: Theory of Structures IA Course Description**

The course covers the following key areas; Statics: Introduction to statics. Plane statics. Structural forms and introduction of statically determinant structures. Axial force structures - tension (cable) structures and compression (arch) structures. Truss forms and analysis of trussels - method of joints, method of sections, and method of tension coefficients. Bending structures - shear force and bending moment diagrams. Dynamics: Kinematics and kinetics of particles. Kinematics and kinetics of rigid bodies in a plane. Work and energy, impulse-momentum, impact.