

## **0403311 Structural Engineering I**

Elastic deflections of structures, Trusses: virtual work, Williot-Mohr-Cambering, Beams and Frames: Conjugate Beam Method, Conjugate Beam Method, Virtual work Reciprocity principles: Betti's Law, Maxwell's Law, Symmetry and Ant symmetry, Statically Indeterminate Structures, Static and Kinematics Indeterminacies, Principle of Superposition. Force Method of Analysis (Flexibility Matrix): Method of Consistent Deformation, Displacement Method (Stiffness Matrix) Slope deflection, Moment Distribution (Without and with Joint Translation).