

## **0403435 Metal Structures I**

Introduction to structural steel design, specifications, loads. Analysis of Tension members, Compression members, Euler formula, effective length, maximum slenderness ratio, stiffened and unstiffened elements. Buckling of compression members. Beams, bending stresses, compact sections, lateral support of beams, laterally unbraced beams. Shear, deflections. Design of purlins. Compound and built-up sections. Bending and axial stress moment compound and built-up sections. Bending and axial stress. Moment amplification. Interaction equations (ASD). Bolted connections, types of bolts welded connections types of welds. Building connections, Base plates.