ARC225: Building Structures II (2 Credit Units)

Department of Architecture

Covenant University
1. ARC225

1.1. ARC225: Building Structures II (2 Credit Units)

This course is a continuation of ARC215 and it is aimed at advancing students understanding on the behavior of structural members and the material they are made of. MODULE 1: Load on Structures-Stress, Strain and Shear as applied to Structures. Hookes Law; Young Modulus; stress-Strain Curve and its applications. Mechanical Properties of Materials (Elasticity, Plasticity, Ductility; Brittleness, Resilience, Hardness, Toughness). MODULE 2: Properties of Cross-Sections of Structural Elements-Centre of Gravity, Centriod and Moment of Areas. MODULE 3: Beam as a simple Structural Element-Staticaly determinant and Indeterminate Beams; Stress in Beams, The Concept and importance of Critical Sections of Beams, Shear and Bending Stresses in Critical Sections of beams. Determination of Shear and Bending Moments in Beams using Bending Moment and Shear force Diagrams.