

ARE 321 : Structural Mechanics

This course covers the analysis of construction materials and structural components in buildings: uniform and non-uniform torsion of structural shapes, analysis of determinate and indeterminate beams (including elastic foundation conditions) by classical methods, finite difference equations, numerical integrations, series approximation, elastic stability of beams and frames, lateral stability of beams, beams-columns, analysis of frames including the effect of axial compression. It also introduces the concepts, theories and methodologies for structural design for buildings.

Credits 3

Lab Hours 0

Lecture Hours 3

Tutoring Hours 0

Prerequisite Courses

ARE 231

Corequisites

none