

# MECH4301 - Intermediate Mechanics of Materials

[MECH 4301](#) Intermediate Mechanics of Materials (3 semester credit hours) Lecture course. Course material includes topics such as principal stresses; constitutive relations, thermal strains; stress concentration, brittle and ductile failure; fracture and fatigue; two-dimensional linear elasticity; material plasticity; energy concepts, unit load method, Castigliano's theorems; St. Venant theory, shear center; curved beams; introduction to plates. Prerequisites: [MECH 2320](#) and [ENGR 3300](#). (3-0) Y