

## Faculty of Engineering & Technology

### Stress Analysis

#### Information :

**Course Code :** MEC264

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Mechatronics Engineering

#### Instructor Information :

| Title              | Name                                | Office hours |
|--------------------|-------------------------------------|--------------|
| Lecturer           | SAMAH ELSAYED ELMETWALLY ELKHATIB   |              |
| Teaching Assistant | Ahmed Ibrahim Sadek Mostafa Elgindy |              |

#### Description :

Equilibrium, Continuity, Normal force, Shearing force, Bending and twisting moment diagrams, Stresses in simply loaded elastic bars: axial loading, bending and torsion, deformation, strain Energy, Stresses in elastic and elasto-plastic bars, Residual stresses. Combined loading, Eccentric normal load, Oblique bending: combined bending and torsion, Two-dimensional stresses, Principal stresses, Maximum shear stress, Allowable stresses, Mohr's circle representation and applications.