

**Faculty of Engineering & Technology**  
**Strength and Technology of materials 1**

**Information :**

**Course Code :** SCM221.

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Structural Engineering & Construction Management

**Description :**

Engineering materials, Standardization, Standard specifications, Codes, Total quality concept, Technical inspection and quality control, Principles of materials science, concrete technology: constituent materials for reinforced concrete (aggregates, cement, mixing water, admixtures, steel reinforcement), Concrete manufacturing, Mechanics of engineering materials: loads, stresses, strains, elastic constants, failure criteria, Mechanical properties, Testing machines, Strain gages, Calibration, Strength and behavior of materials under static loading (tension, compression, bending, shear, torsion, hardness), Miscellaneous conventional and Non-conventional construction materials and products.