

**Faculty of Engineering & Technology****Engineering Thermodynamics****Information :****Course Code :** MEC240**Level :** Undergraduate**Course Hours :** 3.00- Hours**Department :** Mechatronics Engineering**Instructor Information :**

Title	Name	Office hours
Professor	Mahmoud Abdelrasheed Nosier Touny	1
Assistant Lecturer	Moustafa Raafat Aziz Shousha	

**Description :**

Introduction, Fields of application, Fundamental concepts and definitions, Thermo-dynamics Systems; System Classification, Properties and State Processes and Cycles, Properties of a Pure substance; Vapor - Liquid - Solid - Phases of Pure substance, Ideal gas relations, Work and Heat; definitions, kinds of work, heat transfer modes, The first law of thermodynamics; closed system analysis, Control volume analysis and applications, Transient process analysis, The second law of Thermodynamics; Heat Engines and Refrigerators, Carnot cycle, Reversed Carnot cycle, Entropy, Irreversibility and availability, Mixtures of gases.