

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
Lecturer	Anas Mohamed Abdelrahman Ali	
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.