

Faculty of Engineering & Technology

Engineering Thermodynamics

Information :

Course Code : MPR 251

Level : Undergraduate

Course Hours : 4.00- Hours

Department : Department of Petroleum Engineering

Description :

Fundamental concepts and definitions, Thermodynamic processes, Pure substances and perfect gases, The first law of thermodynamics, The second law of thermodynamics, and the Carnot cycle, Thermodynamic relations, Reversibility and entropy, Introduction to heat transfer by conduction, convection, and radiation, Basic formulation and solution of steady and transient problems, Issues relevant to the cooling of electrical devices, Vapor power cycles, Air standard power cycles, Reversed cycles, Irreversibility and availability, Thermodynamic relations and real gas effects , Non-reacting ideal gas mixtures, Mixtures of gases and vapors.