100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	熱力學(一)	Serial No. / ID	1032 / MAV2004
Dept.	機械與自動化工程學系	School System / Class	四技部2年1班
Lecturer	張一屏	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	No
Time / Place	(四)23 / H339 (五)2 / H339	Language	Chinese

Introduction

Introducing the basic concept of thermodynamics, so that the student can understand the system state, process and the relationship between cycles. Apply the principles of thermodynamics to solve the related engineering problems and evaluate the performance of the system. Provide improvement in the area of engines and refrigeration system. Train student to establish the capability for using thermodynamic as a tool to analysis the mechanical and vehicle powertrain system.

Outline

Introduction, Energy types and transter method and conversion, Pure substance properties, Closed system energy analysis, Control volume open system mass and energy balance analysis, Thermodynamic first law for different systems, Entropy and Exergy analysis, Second law analysis for heat engine and refrigeration system. Mixture properties

Prerequisite

Physics, Chemistry, Calculus.