99-1 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
|-------------------|---------------|-----------------------|----------------|
| Title | 內燃機 | Serial No. / ID | 3033 / MAI3015 |
| Dept. | 機械與自動化工程學系 | School System / Class | 大學日間部3年5班 |
| Lecturer | 黃士哲 | Full or Part-time | 兼任 |
| Required / Credit | Optinal / 3 | Graduate Class | No |
| Time / Place | (四)ABC / H444 | Language | Chinese |

Introduction

Establish the capability to analysis, evaluate, and the method to improve the performance of internal combustion engines.

a. Apply fundamental mathematics and physics to internal combustion engines.

b.Understand the construction and operation principles for different kinds of engines.

c.Learn how to apply thermodynamics to analysis engine cycles and modeling according to gasoline and diesel engine combustion systems.

d.Study the parameter effects on the engine torque, horsepower, fuel economy and exhaust emissions.

Outline

- 1. Introduction
- 2. Operating Characteristics
- 3. Engine Cycles
- 4. Chemistry and Fuels
- 5. Air and Fuel Induction
- 6. Gasoline engine Combustion
- 7. Diesel engine combustion
- 8. Exhaust Flow

Prerequisite

Thermodynamics, Chemistry, Engineering mathematics, Mechanics of Materials,