97-2 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
|-------------------|--|-----------------------|----------------|
| Title | 機電整合 | Serial No. / ID | 2053 / MAI2014 |
| Dept. | 機械與自動化工程學系 | School System / Class | 大學日間部3年2班 |
| Lecturer | 陳昭雄 | Full or Part-time | 專任 |
| Required / Credit | Required / 3 | Graduate Class | NO |
| Time / Place | (<u></u>)12 / H834 (<u></u>)4 / H834 | Language | Chinese |

Introduction

Provide an understanding of the mechatronics such as the follows:

- 1. Basic concept of the kinematics and dynamics of a machine,
- 2. Basic concept of the driving theory of a motor.
- 3. Basic concept of the structure and operation of the hydraulic and pneumatic system.
- 4. Basic concept of the sensors and the measurement method.
- 5. Basic concept of the relay logic and switching theory.

Outline

- 1. Introduction to Control Systems
- 2. Introduction to Microprocessor-Based Control
- 3. Introduction to Electromagnetism
- 4. Mechanical Systems
- 5. Sensors
- 6. Actuators: Electric, Hydraulic and Pneumatic
- 7. Switches, Relays and Power-Control Semiconductors
- 8. Direct Current Motors`
- 9. Stepper Motors
- 10. Alternating Current Motors

Prerequisite

Automatic Control, Engineering Mechanics II,