## 99-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	機電整合	Serial No. / ID	0411 / 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	張舜長	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	No
Time / Place	(二)2 / H441 (三)34 / H441	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,