

## 97-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	機電整合	Serial No. / ID	2055 / MAI2014
Dept.	機械與自動化工程學系	School System / Class	大學日間部3年4班
Lecturer	蔡耀文	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	NO
Time / Place	(一)56 / H440 (四)1 / H440	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,