

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

Information			
Title	機電整合	Serial No. / ID	2054 / MAI2014
Dept.	機械與自動化工程學系	School System / Class	大學日間部3年3班
Lecturer	張義芳	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	NO
Time / Place	(一)56 / H443 (三)3 / H563	Language	Chinese

Introduction
<p>Provide an understanding of the mechatronics such as the follows:</p> <ol style="list-style-type: none"> <li>1. Basic concept of the kinematics and dynamics of a machine,</li> <li>2. Basic concept of the driving theory of a motor.</li> <li>3. Basic concept of the structure and operation of the hydraulic and pneumatic system.</li> <li>4. Basic concept of the sensors and the measurement method.</li> <li>5. Basic concept of the relay logic and switching theory.</li> </ol>

Outline
<ol style="list-style-type: none"> <li>1. Introduction to Control Systems</li> <li>2. Introduction to Microprocessor-Based Control</li> <li>3. Introduction to Electromagnetism</li> <li>4. Mechanical Systems</li> <li>5. Sensors</li> <li>6. Actuators: Electric, Hydraulic and Pneumatic</li> <li>7. Switches, Relays and Power-Control Semiconductors</li> <li>8. Direct Current Motors`</li> <li>9. Stepper Motors</li> <li>10. Alternating Current Motors</li> </ol>

Prerequisite
Automatic Control, Engineering Mechanics II,