

# 102-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	機電整合	Serial No. / ID	0833 / MAI2014
Dept.	機械與自動化工程學系	School System / Class	大學日間部3年1班
Lecturer	張義芳	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	No
Time / Place	(一)34 / H440 (二)9 / H440	Language	Chinese

Introduction
Provide an understanding of the mechatronics such as the follows: <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,