

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

| Information       |                          |                       |                |
|-------------------|--------------------------|-----------------------|----------------|
| Title             | 機電整合                     | Serial No. / ID       | 0414 / 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      | (二)1 / H441 (五)34 / H441 | Language              | Chinese        |

| Introduction   |
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| Provide an understanding of the mechatronics such as the follows:<br><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   |
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| <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                                 |
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| Automatic Control, Engineering Mechanics II, |