

# 102-1 Preliminary Syllabus, Da-Yeh Univ

| Information       |               |                       |                |
|-------------------|---------------|-----------------------|----------------|
| Title             | 普通物理實驗(電學)    | Serial No. / ID       | 1901 / EEI1049 |
| Dept.             | 電機工程學系        | School System / Class | 大學日間部1年1班      |
| Lecturer          | 李得勝           | Full or Part-time     | 專任             |
| Required / Credit | Required / 1  | Graduate Class        | No             |
| Time / Place      | (四)89A / H205 | Language              | Chinese        |

| Introduction  |
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| <p>A. Department of Electrical Engineering Da-Yeh University, the aims of education (Educational Objectives)</p> <ol style="list-style-type: none"> <li>1. Basic: teaching basic knowledge of mathematics and information.</li> <li>2. Professional: professional and technical training in electrical engineering.</li> <li>3. Integration: Strengthening the integration of technology application and training.</li> <li>4. International outlook: foreign language skills, culture and international perspective.</li> </ol> <p>B. Department of Electrical Engineering Da-Yeh University, Education core competencies (Educational Outcomes)</p> <ol style="list-style-type: none"> <li>1.1 has a basic knowledge of mathematics and ability.</li> <li>1.2 has a physical basis of knowledge and skills.</li> <li>1.3 has a basic knowledge of information technology and capability.</li> <li>2.1 with electrical engineering expertise and application capability.</li> <li>3.1 with data collection, simulation analysis, experimental design and problem solving ability.</li> <li>3.2 necessary for engineering practice and implement the technical ability.</li> <li>4.1 English with basic motor skills.</li> <li>4.2 understanding of domestic motor development trend of related industries and pulse.</li> <li>4.3 fully recognizes the importance of professional ethics, understanding of engineering technology on the environment, social and global implications, fulfilling the social responsibility of engineers.</li> </ol> <p>Course Objectives:</p> <ol style="list-style-type: none"> <li>1. so that students understand the basic principles of General Physics Electricity</li> <li>2. how to operate the equipment for Physics Experiments</li> <li>3. Verify the laws of physics and familiar with the instrument training</li> <li>4. the ability to analyze data</li> </ol> <p>(A1, B1.2, B3.1)</p> |

| Outline  |
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| <ol style="list-style-type: none"> <li>1. Electric field lines distribution experiment</li> <li>2. DC Circuits</li> <li>3. Millikan oil- d r o p experiment</li> <li>4. Wheatstone bridge experiment</li> <li>5. solenoid magnetic field experiment</li> <li>6. electronic charge and mass ratio experiment</li> <li>7. the level of intensity of magnetic moment and magnetic measurements</li> </ol> |

8. inductance measurement experiment
9. AC series resonant test
10. Microwave Device Laboratory
11. refractive index measurement experiment
12. basic optics (a) single-slit diffraction phenomenon (b) of the double-slit interference
13. Photoelectric Effect
14. oscilloscope experiment
15. hysteresis
16. Hall effect is measured

### Prerequisite

General Physics (electrical, magnetic and optical)