



課 綱 Course Outline  
光電工程學系學士班

|   |   |                  |                    |  |     |
|---|---|------------------|--------------------|--|-----|
| 中文課程名稱<br>Course Name in Chinese                | 太陽光電設置實驗  |                  |                    |  |     |
| 英文課程名稱<br>Course Name in English                | Photovoltaic installation experiment  |                  |                    |  |     |
| 科目代碼<br>Course Code                             | OE_10370  | 班 別<br>Degree    | 學士班<br>Bachelor' s |  |     |
| 修別<br>Type                                      | 學程<br>Program   | 學分數<br>Credit(s) | 1.0                | 時 數<br>Hour(s)   | 1.0 |
| 先修課程<br>Prerequisite                            |   |                  |                    |  |     |
| 課程目標<br>Course Objectives                       |   |                  |                    |  |     |
| (1) 藉由動手操作認識太陽光電。<br>(2) 使學生具備安裝獨立型、併聯型太陽系統之能力。 |   |                  |                    |  |     |
| 系教育目標<br>Dept.' s Education Objectives          |   |                  |                    |  |     |
| 1   | 傳授科學知識，培訓實用技能<br>Acquire science knowledge, develop practical skills  |                  |                    |  |     |
| 2   | 培養工程倫理，啟發創新思維<br>Sublimate engineering ethics, encourage creative thinking  |                  |                    |  |     |
| 3   | 培養團隊精神，促進協調合作<br>Promote teamwork spirit, inspire coordination and cooperation                                    |                  |                    |  |     |
| 系專業能力<br>Basic Learning Outcomes                |   |                  |                    | 課程目標與系專業能力相關性<br>Correlation between Course Objectives and Dept.' s Education Objectives |     |
| A   | 具有光電相關的物理、化學、材料及數學的知識。<br>Physics, chemistry, material, and math knowledge related to opto-electronic engineering |                  |                    | ●  |     |
| B   | 具有光電工程的專業知識及應用能力。<br>Professional knowledge and application ability of opto-electronic engineering                |                  |                    | ●  |     |
| C   | 具有設計與執行實驗、報告撰寫與數據解釋之能力。<br>Abilities to design and execute experiment, write reports, and explain data            |                  |                    | ●  |     |
| D   | 使用儀器進行物件的分析及測試。<br>Analysis and test of devices by instruments  |                  |                    | ●  |     |

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|---|---|---|
| E | 具備適當的英文能力，應用於學習與交流。<br>English language ability to study and interact | ○ |
| F | 具有良好的溝通與團隊合作的能力。<br>Ability to communicate and teamwork               | ● |
| G | 具有創新思維及終身學習的能力。<br>Creative thinking and life-long learning ability   | ○ |

圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated

課程大綱  
Course Outline

1. 太陽光電系統認識
2. 方位角傾斜角實作
3. 獨立型室外模組實作
4. 獨立型室內配線
5. 配管實作
6. 併聯型室外模組實作
7. 併聯型室內配線
8. 儀表使用
9. 故障排除
10. 效率計算

資源需求評估（師資專長之聘任、儀器設備的配合．．．等）  
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

無特殊需要

課程要求和教學方式之建議  
Course Requirements and Suggested Teaching Methods

平時成績 (50%)， 期末實作 (50%)

其他  
Miscellaneous

太陽光電設置(建議同學期選修)，且建議大四以上選修。