



課 綱 Course Outline  
材料科學與工程學系一般組

|  |  |   |                  |  |                |     |
|--|--|---|------------------|--|----------------|-----|
| 中文課程名稱<br>Course Name in Chinese       |  | 電化學原理與腐蝕工程  |                  |  |                |     |
| 英文課程名稱<br>Course Name in English       |  | Principle of Electrochemistry and Corrosion Engineering |                  |  |                |     |
| 科目代碼<br>Course Code                    |  | MS__57110   | 班 別<br>Degree    | 碩士班<br>Master' s   |                |     |
| 修別<br>Type                             |  | 選修<br>Elective  | 學分數<br>Credit(s) | 3.0  | 時 數<br>Hour(s) | 3.0 |
| 先修課程<br>Prerequisite                   |  |   |                  |  |                |     |
| 課程目標<br>Course Objectives              |  |   |                  |  |                |     |
| 使學生了解電化學原理，利用電化學原理解釋腐蝕的機制及防蝕的基本原理。     |  |   |                  |  |                |     |
| 系教育目標<br>Dept.' s Education Objectives |  |   |                  |  |                |     |
| 1                                      | 建立專業知識基礎<br>Set the professional knowledge foundation  |   |                  |  |                |     |
| 2                                      | 培養專業實驗技能<br>Train the professional experimental skill  |   |                  |  |                |     |
| 3                                      | 養成獨立研究能力<br>Insure capability of independent research  |   |                  |  |                |     |
| 4                                      | 養成優質社會人格<br>Form the positive social character   |   |                  |  |                |     |
| 5                                      | 開展國際視野<br>Develop global vision  |   |                  |  |                |     |
| 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                                      | 具備材料科學所需的進階物理、化學及數學的知識。<br>Acquire required advanced physical, chemical, and mathematic knowledge for materials science and engineering.                           |   |                  | ●  |                |     |
| B                                      | 具備材料科學的進階專業知識，並能應用於解決工程上之問題。<br>Acquire required advanced professional knowledge for materials science and engineering, applicable in solving engineering problems |   |                  | ●  |                |     |

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|---|---|---|
| C | 具備獨立研究之能力。<br>Equipped with capabilities of independent research.   | ○ |
| D | 具備專業道德及責任感，與良好的溝通及團隊合作的能力。<br>Acquire professional morality and responsibility, and capability of quality communication and team cooperation. | ○ |
| E | 具備適當的英文能力，應用於學習與交流。<br>Acquire English capability used for learning and interaction.  | ○ |

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

課程大綱  
Course Outline

本課程主要介紹電化學原理，利用電化學原理解釋腐蝕的機制及防蝕的基本原理。

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.)

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

其他  
Miscellaneous