

Course Content

Course Title (English)	Electromagnetics Theory
Course Title (Chinese)	電磁理論
Credit	3
Instructor	Prof. Yi-Cheng Lin 林怡成 教授
Outline	<p>本課程函概下列課題：</p> <ol style="list-style-type: none">1. 電磁場與電磁波之基礎觀念2. 波動方程式與其解之物理意義3. 電磁波之傳播特性4. 電磁波在層狀結構之反射與透射(含等效傳輸線模型)5. 電磁波之輻射原理與天線課題6. 電磁進階定理(唯一、等效、鏡像、二元、互易、互補)7. 電磁問題與解答之應用實例8. 電磁專題介紹與期末報告 <ol style="list-style-type: none">1. Fundamental Concepts and Field Equations2. EM Wave Equations and Solutions3. EM Wave Propagation and Polarization4. Reflection and Transmission in Layered Media5. EM Radiation and Scattering Problems6. Advanced EM Theories and Principles7. Examples of EM Problems and Solutions8. Selected Topics

<p>Goal</p>	<p>本課程有下列三層目標：</p> <ol style="list-style-type: none"> 1. 回顧並澄清一些模糊/偏差之電磁學基礎觀念 2. 介紹進階的電磁原理與定理 3. 拓展電磁相關之知識與應用研究課題 <p>This course provides the advanced electromagnetic (EM) theory and applications. It has three overall objectives for students:</p> <ol style="list-style-type: none"> 1. to revisit the fundamental concepts of EM fields and waves 2. to explore the advanced EM theory in the past decades 3. to equip the students with effective skills to modern EM-related research topics
<p>English Teaching</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>
<p>Teaching Material</p>	<p><input checked="" type="checkbox"/> English <input type="checkbox"/> Chinese</p>