朝陽科技大學 097學年度第1學期教學大綱
Physics 電子物理

當期課號	2653	Course Number	2653
授課教師	洪士程	Instructor	HORNG,SHIH CHENG
中文課名	電子物理	Course Name	Physics
開課單位	資訊工程系(四日)一A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	本課程主要介紹物理學當中關於電子電路的基本概念，學生在完成本課程後，將可了解關於電與磁的基本原理，其主要涵蓋的範圍有：電荷 - 電場 - 高斯定律 - 電位 - 電容 - 電流與電阻 - 電路 - 磁場 - 馬克斯威爾方程式	Objectives	The goal of this course is to provide the students with a basic knowledge of physics. The students will realize the following important electromagnetism theories in this course: Electrostatics: Forces - Electric Fields - Electrostatics: Energy - Capacitance - Direct Current: Ohm's Law, Resistance, Electric Current, Voltage, Power - Circuits - Magnetism: Magnetic field, - Currents and Ampere's law - Magnetic force - Faraday's law, Maxwell equation.
教材	College Physics, 2nd Ed, 2007 Giambattista、Richardson、Richardson McGW-HILL (高立圖書代理) ISBN: 0072564369	Teaching Materials	College Physics, 2nd Ed, 2007 Giambattista、Richardson、Richardson McGW-HILL ISBN: 0072564369
成績評量方式	(1)期中考 30% (2)期末考 30% (3)作業及小考 30% (4)出席 10%	Grading	Midterm Exam. 30% Final Exam. 30% Homework and Quiz 30% Participation 10%
教師網頁	http://www.cyut.edu.tw/~schong/		
教學內容	1.古典物理: 力學，能量守恆，波，溫度，熵。 2.電磁學: 電場，電位能與電位，磁力與磁場，電感，交流電路，馬克斯威方程式與電磁波。 3.近代物理: 相對論，量子物理。	Syllabus	1. Classical Physics: force, conservation of energy, wave, temperature, entropy. 2. Electromagnetism: electric forces and fields, electric potential, electric current and circuits, magnetic forces and fields, electromagnetic induction, alternating current, electromagnetic waves. 3.Selected topics: relativity, quantum physics.

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