

朝陽科技大學 099學年度第2學期教學大綱
Electronics 電子學

當期課號	3668	Course Number	3668
授課教師	張原豪	Instructor	CHANG,YUEN HAW
中文課名	電子學	Course Name	Electronics
開課單位	資訊工程系(四進)二A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	1. 針對電子電路初階課程內容,採中慢速度講述教學. 2. 由於本課程為研究所考科之一,故擬以升學考試為其目標,進行計算題實際演練方式實施之. 3. 本學期所進行之期中/期末考題,參考各大學考古題出題,以培養同學未來升學實戰之能力. 4. 內容:基本電學與電路學,二極體及其應用電路,雙極介面電晶體及其應用電路,運算放大器及其應用電路,金氧半場效電晶體及其應用電路.	Objectives	1. Introduction to the fundamental concept of Microelectronics(midium-speed teaching). 2. Since it is one of graduate entrance courses, our teaching goal is to enhance the analysis ability of electrical circuit. 3. The styles of Midterm/Final exam. refer to the graduate entrance exam. 4. Content: some basic concepts about electronic circuits, diodes and application, BJTs and application, OP Amplifiers and application, MOSFETs and application.
教材	1. Fundamentals of Electronic Circuit Analysis and Design, Niemann, Donald A. Neamen, 1st, McGraw-Hill 2. Microelectronics, J. Millman, 2nd, McGraw-Hill. 3. Microelectric Circuits, S. Smith, 4th, Oxford.	Teaching Materials	1. Fundamentals of Electronic Circuit Analysis and Design, Niemann, Donald A. Neamen, 1st, McGraw-Hill 2. Microelectronics, J. Millman, 2nd, McGraw-Hill. 3. Microelectric Circuits, S. Smith, 4th, Oxford.
成績評量方式	1. 期中考試: 20% 2. 期末考試: 20% 3. 平時小考: 30% (共4次,每次7.5%) 4. 平時作業: 15% 5. 出席情形: 15%	Grading	1. Midterm exam.: 20% 2. Final exam.: 20% 3. Quiz: 7.5%*4= 30% 4. Homework: 15% 5. Attitude: 15%
教師網頁	http://www.csie.cyut.edu.tw/~cyhfyc/cyhfyc.html		
教學內容	1. PN二極體: I/V曲線,工作行爲,電路分析. 2. 金氧半電晶體: MOSFET的I/V曲線,工作行爲, DC/AC電路分析,CS/CD/CG放大器, 電流鏡. 3. 運算放大器: 理想特性,OP應用電路分析, OP非理想分析.	Syllabus	1. PN Diode: I/V curve,behavior,circuit analysis. 2. MOSFET: I/V curve,behavior,DC/AC circuit analysis, CS/CD/CG amplifiers, current mirror. 3. Operational Amp.: ideal characteristic,OP application, non-ideal analysis of OP circuits.

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