

朝陽科技大學 099學年度第1學期教學大綱
Integral Circuit Design 系統晶片設計

當期課號	2590	Course Number	2590
授課教師	林進發	Instructor	
中文課名	系統晶片設計	Course Name	Integral Circuit Design
開課單位	資訊與通訊系(四日)四A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	培育積體電路晶片及系統設計人才，提昇積體電路晶片及系統設計技術，強化學生積體電路晶片及系統設計能力。主要任務包括：晶片製作及測試，設計技術研發等。內容包括：Cell-Based IC Design、Full-Custom IC Design、RF IC Design、FPGA/CPLD Design及IC Testing等。	Objectives	Cell-based Chip Design Concepts, Verilog Hardware Description Language, Logic Synthesis, Hspice, Layout Implementation, Nyquist-Rate A/D Converter Design, RF CMOS IC Design Flow
教材	Jan M. Rabaey, A. Chandrakasan and B. Nikloic, "Digital Integrated Circuits," 2nd Edition. http://bwrc.eecs.berkeley.edu/icbook/slides.htm	Teaching Materials	Jan M. Rabaey, A. Chandrakasan and B. Nikloic, "Digital Integrated Circuits," 2nd Edition. http://bwrc.eecs.berkeley.edu/icbook/slides.htm
成績評量方式	1.考試(30%) 2.作業(20%) 3.報告(40%) 4.出席率(10%)	Grading	1. Exam (30%) 2. Homework (20%) 3. Project (40%) 4. Attendance (10%)
教師網頁	http://www.cyut.edu.tw/~jflin/		
教學內容	1. 簡介 2. VLSI製造 3. Inverter & Power consumption 4. 通過式邏輯與傳輸閘 4. 栓鎖與正反器 5. 複雜組合電路設計 6. 動態電路	Syllabus	1. Introduction 2. The Manufacturing Process 3. Inverter & Power consumption 4. Pass logic & Transmission gate 5. Designing Complex Digital Integrated Circuits 6. Dynamic circuit

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