

朝陽科技大學 099學年度第2學期教學大綱  
Digital Logic Design 數位邏輯設計

當期課號	2518	Course Number	2518
授課教師	林進發	Instructor	
中文課名	數位邏輯設計	Course Name	Digital Logic Design
開課單位	資訊與通訊系(四日)一B	Department	
修習別	必修	Required/Elective	Required
學分數	2	Credits	2
課程目標	"本課程的目標有 1. 使學生了解進制演算、邏輯閘、加法器與減法器、編碼與多工、正反器、序向邏輯及其應用(知識) 2.使學生了解並熟悉布林代數之運算，以達成邏輯運算之簡化，並降低邏輯閘的數目(能力) 3. 使學生知道邏輯運算及其網路應用之重要性(態度) 4. 使學生了解暫存器、計數器、記憶體及可程式邏輯與其在微處理器之應用及網路應用 (其他)"	Objectives	"The goals of this course are described as follows. 1. Enable students to understand the binary operations, logic gates, the Adder and Subtractor, coding and multiplexer, Flip-Flops and the applications, the sequential logic and the microprocessors applications. 2. Enable students to learn and to become familiar with the operation of Boolean algebra, with logical operations of simplification, and reduce the number of logic gates. 3. Make the students know that the logic design and its applications are important for the computer engineering and network applications. 4. Make the students understand registers, counters, the memory, the programmable logic and its application in the microprocessors. "
教材	1. 上課講義	Teaching Materials	1. Lecture Note
成績評量方式	1.期中考(25%) 2.期末考(25%) 3.小考+作業(40%) 5.出席率(10%)	Grading	1. Midterm Exam (25%) 2. Final Exam (25%) 3. Quiz + project (40%) 5. Attendance (10%)
教師網頁	<a href="http://www.cyut.edu.tw/~jflin/">http://www.cyut.edu.tw/~jflin/</a>		
教學內容	1. 布林函數說明 2. 數字系統簡介 3. 基本邏輯閘介紹與化簡 4. 加減法器設計 5. 解碼器與其應用 6. 序向電路	Syllabus	1. Introduction to Boolean algebra. 2. Numbering system 3. Basic Logic gates. 4. Adders and Substraters. 5. Decoder designs and applications 6. Introduction to sequential circuits

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