朝陽科技大學 092學年度第1學期教學大綱
Discrete Mathematics 離散數學

當期課號	2336	Course Number	2336
授課教師	廖珙洲	Instructor	LIAO,HSIEN CHOU
中文課名	離散數學	Course Name	Discrete Mathematics
開課單位	資訊工程系(四日)三A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	"離散數學是所有數位資訊處理的基礎. 學生在修習完此課程後, 將可瞭解以下知識: (1)讓學生更精明; (2)解決某些有趣的問題; (3)提昇學生的邏輯及思考能力. 學生在修習完此課程後, 將可瞭解以下主題: 計數的基本原則, 邏輯的基礎, 集合理論, 數學歸納法, 關係與函數, 有限狀態機語言, 包含與排除的原則, 生成函數, 遞迴關係, 圖形理論的介紹, 樹, 與最佳化和配對. "	Objectives	Discrete Mathematics is the basis of all of “digital” information processing. After completing this course, students will realize the following: (1) Make students smarter; (2) Solve interesting problem; (3) Promote the logic and thinking capabilities of the students. After completing this course, students will realize the following topics: Fundamental Principles of Counting, Fundamentals of Logic, Set Theory, Mathematical Induction, Relations and Functions, Languages: Finite State Machines, The Principle of Inclusion and Exclusion, Generating Functions, Recurrence Relations, An Introduction to Graph Theory, Trees, and Optimization and Matching.
教材	投影片講解與黑板推導	Teaching Materials	Slides and Derivation
成績評量方式	1. 作業: 20% 2. 隨堂小考: 20% 3. 期中考: 20% 4. 期末考: 30% 5. 課堂參與: 10%	Grading	1. Homework: 20% 2. In-Class Exam.: 20% 3. Midterm Exam.: 20% 4. Final Exam.: 30% 5. Class Participation: 10%
教師網頁			
教學內容	本門課的主要目標是讓學生具備資訊工程所需之數學背景，並且拓展學生以抽象化的方式來處理問題的能力。課程內容包含許多有用的主題，包括：圖論，樹論以及網路模型。	Syllabus	The main goal of this course is to give students the necessary background in the language of mathematics, and to extend students’ mathematical maturity and ability to deal with abstraction. Some useful topics are also included, such as graphs, trees, and network models

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