朝陽科技大學 096學年度第1學期教學大綱
Algorithms 演算法

當期課號	7450	Course Number	7450
授課教師	李朱慧	Instructor	LEE,CHU HUI
中文課名	演算法	Course Name	Algorithms
開課單位	資訊科技研究所博士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本課程主要介紹演算法的設計與觀念，主要涵蓋的範圍有： 1.演算法的複雜度與計算下限的方法. 2.NP-Complete的問題. 3.貪婪方法的介紹. 4.Divide-and-conquer的方法. 5.搜尋的方法. 6.Prune-and-search的策略. 7.動態規劃. 8.逼近演算法.	Objectives	This course investigates several important algorithm topics. The covered issues in this course includes 1.Complexity of algorithms and lower bounds of problems. 2.NP-complete. 3.Greedy method. 4.Divide-and-conquer. 5.Tree searching strategies. 6.Prune-and-search strategy. 7.Dynamic programming.
教材	Introduction to algorithm, second edition, Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford stein.	Teaching Materials	Introduction to algorithm, second edition, Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford stein.
成績評量方式	期中考: 35 分 期末考: 35 分 報告與平時成績: 30 分	Grading	Midterm Examination: 35% Final Examination: 35% Homework and Class participation : 30%
教師網頁	www.cyut.edu.tw/~chlee		
教學內容	1.The Role of Algorithms in Computing 2.Growth of Functions 3.Recurrences 4.Heapsort 5.Hash Tables 6.Binary Search Trees 7.Red-Black trees 8.Augmenting Data Structures 9.Dynamic Programming 10.Greedy Algorithms 11.Amortized Analysis 12.NP-Completeness	Syllabus	1.The Role of Algorithms in Computing 2.Growth of Functions 3.Recurrences 4.Heapsort 5.Hash Tables 6.Binary Search Trees 7.Red-Black trees 8.Augmenting Data Structures 9.Dynamic Programming 10.Greedy Algorithms 11.Amortized Analysis 12.NP-Completeness

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