

朝陽科技大學 096學年度第2學期教學大綱
Introduction to Algorithm 演算法概論

當期課號	3771	Course Number	3771
授課教師	吳世弘	Instructor	WU,SHIH HUNG
中文課名	演算法概論	Course Name	Introduction to Algorithm
開課單位	資訊工程系(四進)四A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	<p>本課程主要介紹演算法的設計與觀念，學生在完成本課程後，將可了解關於演算法的設計理念，其主要涵蓋的範圍有：</p> <ul style="list-style-type: none"> 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 	Objectives	<p>The goal of this course is to provide the students with a basic knowledge of computer algorithm. The students will realize the following important algorithm topics after finishing this course:</p> <ul style="list-style-type: none"> 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	Text book Algorithms Design: Foundations, Analysis, and Internet Examples by M.T. Goodrich, R. Tamassia 全華圖書代理 ISBN: 0-471-38365-1 Reference T.H.Cormen,C.E.Leiserson,R.L.Rivest and C.Stein, Introduction to Algorithms, 2nd edition, 開發圖書代理.	Teaching Materials	Text book Algorithms Design: Foundations, Analysis, and Internet Examples by M.T. Goodrich, R. Tamassia 全華圖書代理 ISBN: 0-471-38365-1 Reference T.H.Cormen,C.E.Leiserson,R.L.Rivest and C.Stein, Introduction to Algorithms, 2nd edition, 開發圖書代理.
成績評量方式	期中考30%，期末考30%，平時作業40%	Grading	Midterm exam 30%, Final exam 30%, exercise 40%
教師網頁	http://www.csie.cyu.edu.tw/~shwu		
教學內容	<p>本課程主要介紹演算法的設計與觀念，主要涵蓋的範圍有：</p> <ul style="list-style-type: none"> — 演算法的複雜度與計算下限的方法 — NP-Complete的問題 — 貪婪方法的介紹 — Divide-and-conquer的方法 — 搜尋的方法 — Prune-and-search的策略 — 動態規劃 — 逼近演算法 	Syllabus	<p>This course investigates several important algorithm topics. The covered issues in this course includes</p> <ul style="list-style-type: none"> — Complexity of algorithms and lower bounds of problems — NP-complete — Greedy method — Divide-and-conquer — Tree searching strategies — Prune-and-search strategy — Dynamic programming

尊重智慧財產權，請勿非法影印。