

朝陽科技大學 098學年度第1學期教學大綱
Algorithms 演算法

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| 當期課號 | 7439 | Course Number | 7439 |
| 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 | <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> <ol 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. 8.逼近演算法. | Objectives | <p>This course investigates several important algorithm topics. The covered issues in this course includes</p> <ol 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 | 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 | <p>期中考: 35 分 期末考: 35 分 報告與平時成績: 30 分</p> | Grading | <p>Midterm Examination: 35% Final Examination: 35% Homework and Class participation : 30%</p> |
| 教師網頁 | www.cyut.edu.tw/~chlee | | |
| 教學內容 | <ol style="list-style-type: none"> 1.The Role of Algorithms in Computing 2.Growth of Functions 3.Recurrences 4.Heapsort 5.Hash Tables 6.Binary Search Trees 7.Dynamic Programming 8.Greedy Algorithms 9.NP-Completeness | Syllabus | <ol style="list-style-type: none"> 1.The Role of Algorithms in Computing 2.Growth of Functions 3.Recurrences 4.Heapsort 5.Hash Tables 6.Binary Search Trees 7.Dynamic Programming 8.Greedy Algorithms 9.NP-Completeness |

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