



Algorithm Design and Analysis Course Logistics

<http://ada.miulab.tw>

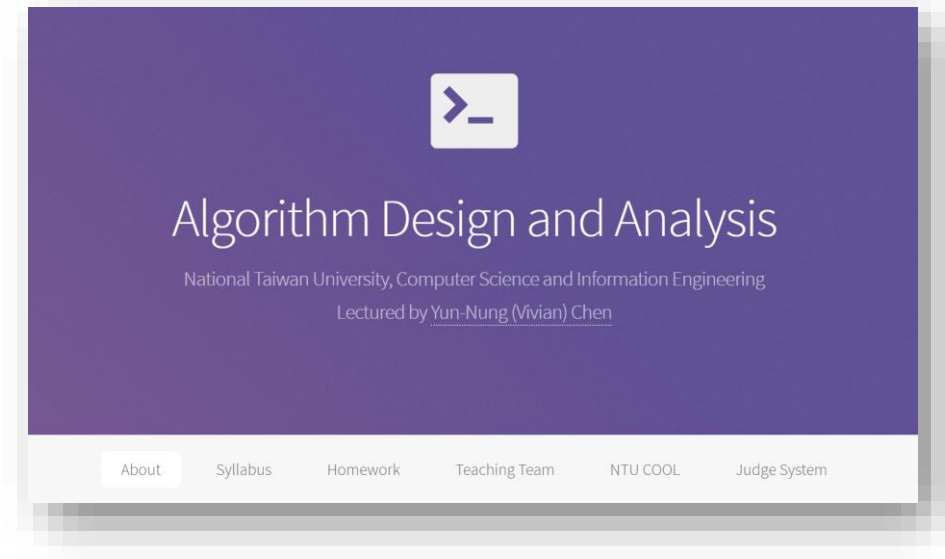
Yun-Nung (Vivian) Chen



國立臺灣大學
National Taiwan University

Algorithm Design & Analysis

- Instructor: 陳縉儂 Yun-Nung (Vivian) Chen
- Time: Thursday 789, 14:20-17:20
- Location: R104
- Website: <http://ada.miulab.tw>
- NTU COOL: <https://cool.ntu.edu.tw/courses/368>
 - Slides uploaded before each lecture
- Email: ada-ta@csie.ntu.edu.tw
 - To ensure timely response, email title should contain “[ADA2019]”
 - Do NOT send to our personal emails
- Knowledge required
 - Programming
 - Data structure



NTU COOL

- Information on COOL
 - Lecture recordings
 - Mini-HW submission
- Discussion forum



加簽規則

- Pre-requisites
 - Programming
 - Data structure
- Order
 - CSIE (大二 > 研究所應修 > 大四+ > 大三 > 大一)
 - Others
- Registration [Google Form](#)
 - The deadline is **17:20 today!!**
- Registration code will be sent out via email



演算法設計與分析
科目流水號：
加選授權碼：
授課教師：陳經懷

單班ADA

- Lectured by Dr. Hsun-Chun Hsiao
- If the classroom allows, you are free to change to another class
- **Same:** course content, syllabus, assignments, mini-homework, exams
- **Different:** slides, some application examples

We both graduate from CMU!!!



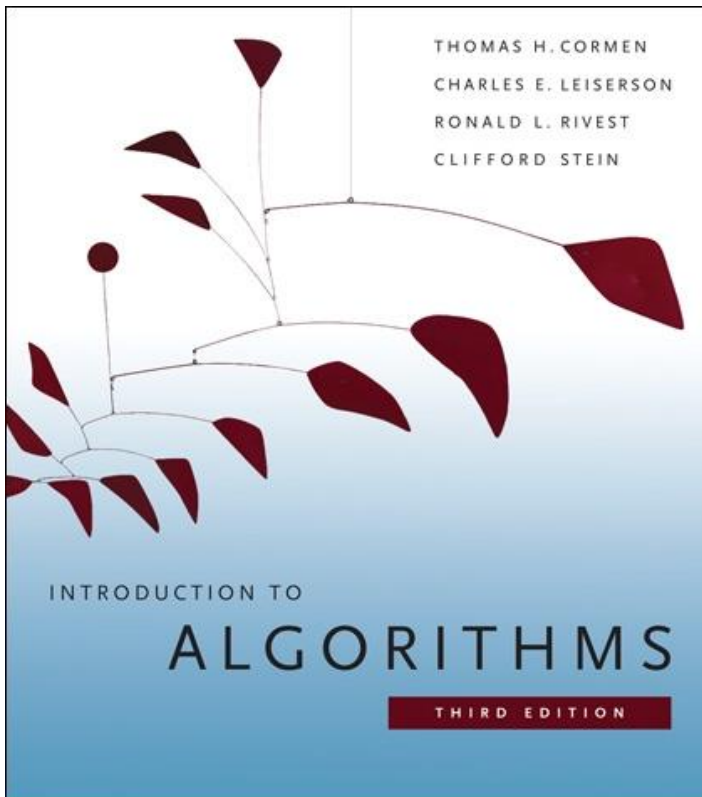
Powerful Teaching Team

- Lead TA (Both) 劉俊緯
- Lead TA (雙) 翁子騰
- 陳泓為
- 江緯璿
- 廖政彰
- 裴梧鈞
- 唐浩
- 塗大為
- 黃于軒
- 吳士綸
- 張集貴
- 吳崇維
- 蘇多門
- 謝議霆
- 邱譯
- 劉家維
- 周逸



Textbook

- Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein. Introduction to Algorithms. 3rd edition, MIT Press, 2009



Course Objective

- After taking this course, you should be able to
 - ***Design*** correct and efficient algorithms
 - ***Implement*** the designed algorithms
 - ***Prove*** the correctness of algorithms
 - ***Analyze*** the complexity of algorithms

Course Overview

Algorithmic Fundamentals

Introduction

Asymptotic Analysis

Algorithm Design Strategy

Divide-and-Conquer

Dynamic Programming

Greedy Algorithms

Algorithm Analysis

Amortized Analysis

NP Completeness

Graph & Selected Topics

Graph Algorithms

Others

Grading Components

- **Homework Assignments (40%)** **hardcopy (required); online (optional for backup)**
 - 4 in total; once per 2-3 weeks
 - Programming and non-programming problems
- **Mini-homework (10%)** **NTU COOL online submission**
 - Once every week
 - Best 10 scores
 - Due before the next week class
- **Midterm (20%)**
 - Course content before midterm
- **Final Exam (20%)**
 - All course content
- **Final Presentation (5%)**
 - About 5 people each group
- **Class Participation (5%)**
 - Default = 3%, additional bonus if you 1) ask questions during the class / in the discussion forum @NTU COOL, 2) provide opinions during discussion, or 3) help your peers



Grading Rules

- Non-programming problems
 - 可以與人討論及上網查資料，但必須理解後以自己的話來寫
 - 註明該次作業為
 - 1) 完全獨立完成
 - 2) 列出參考資料 (網址、課本頁數)
 - 3) 致謝共同討論同學
 - 須以A4紙張繳交，若多於一張請於左上角以訂書針裝訂
 - 盡量用電腦寫，若用手寫看不懂字體時一律不算分
 - 請同時上傳電子檔以免作業遺失
- Programming problems
 - 以測資分數計算，作業結束後會公布測資
 - 上傳規定會在每次作業說明中，請務必仔細閱讀
- **作業抄襲，考試舞弊，抄襲者與被抄襲者學期成績零分**





Question?

Important announcement will be sent to
@ntu.edu.tw mailbox & post to the course website

Course Website: <http://ada.miulab.tw>

Email: ada-ta@csie.ntu.edu.tw