

know
the
rules

Course Logistics
Sep 14th, 2017

Algorithm Design and Analysis

YUN-NUNG (VIVIAN) CHEN [HTTP://ADA17.CSIE.ORG](http://ada17.csie.org)



國立臺灣大學
National Taiwan University

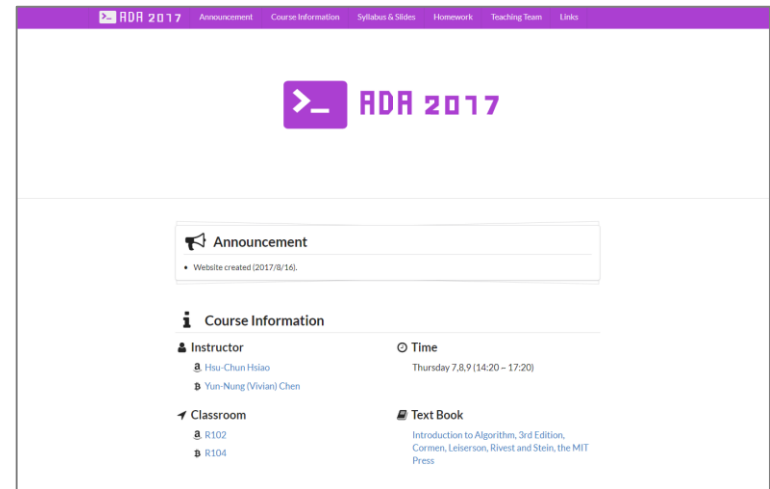
Algorithm Design & Analysis

- Instructor: 陳縉儂 Yun-Nung (Vivian) Chen
- Time: Thursday 789, 14:20-17:20
- Location: R104

- Website: <http://ada17.csie.org>
 - Slides uploaded before each lecture

- Email: ada-ta@csie.ntu.edu.tw
 - To ensure timely response, email title should contain “[ADA2017]”
 - Do NOT send to our personal emails

- Knowledge required
 - Programming
 - Data structure



加簽規則

- Pre-requisites
 - Programming
 - Data structure
- Order
 - CSIE (大二 > 研究所應修 > 大四+ > 大三 > 大一)
 - EECS
 - 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：陳經儂



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
- **Different:** slides, exams, some application examples

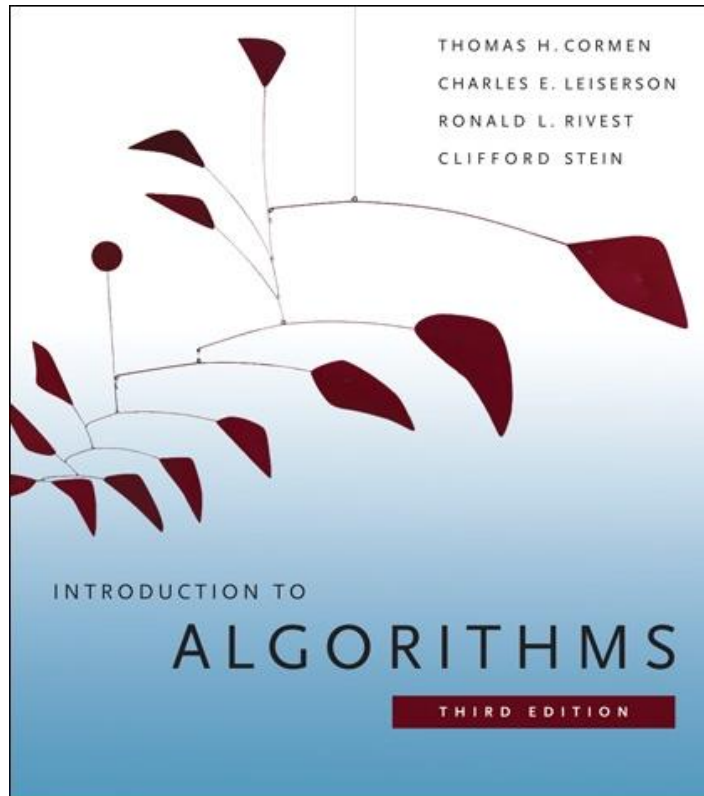


Teaching Team

- Lead TA (單) 江昱熹
- Lead TA (雙) 高廣
- 許晉嘉
- 王瀚中
- 周忠毅
- 王馨儀
- 黃柏瑋
- 蘇景耀
- 鄭士驤
- 王子朋



Textbook



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



Slides credited from hil

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%)**
 - 4 in total; once per 2-3 weeks
 - Programming problems
 - Non-programming problems
- **Mini-homework (10%)**
 - Once every week
 - Due before the next week class
- **Midterm (20%)**
 - Course content before midterm
- **Final (25%)**
 - All course content
- **Class Participation (5%)**
 - Asking questions during the class
 - Providing opinions during class discussion
 - Going to office hours
 - Helping your peers



Grading Rules

- 紙本作業
 - 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裝訂
 - 盡量用電腦寫，若用手寫看不懂字體時一律不算分
- 程式作業
 - 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://ada17.csie.org>

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