

# Advanced Algorithms – Spring'21

Institute of Electronics  
National Yang Ming Chiao Tung University

## **Objectives:**

- Learn how to analyze the given problems
- Learn how to design efficient and effective methods to resolve given problems
- Learn the already-known marvelous algorithms for certain classical problems

## **Prerequisite:**

- Computer Programming (mandatory)
- Data Structure (nice to have)

## **Outlines:**

- Introduction
- Sorting
- Fundamental data structures
- Dynamic programming
- Greedy methods
- Fundamental graph algorithms

## **Textbook:**

T. H. Cormen, C. E. Leiserson, R. L. Rivest, and C. Stein, "Introduction to Algorithms," 3rd edition, 2009, MIT Press, ISBN: 978-0-262-53305-8.

## **Instructor:**

Juinn-Dar Huang, Professor (黃俊達教授)

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Office Hour: Monday CD @ ED621, [by appointment first](#)

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## **Teaching Assistant in Charge:**

- 李軒泓, ext. 54211, [nonelee.ee05@g2.nctu.edu.tw](mailto:nonelee.ee05@g2.nctu.edu.tw)

## **Class Time & Place:**

Thursday BCD @ ED202

**Website:**

A course webpage is maintained on the e3 platform.

Course materials and announcements will be available here. Visit the web site *frequently* to check for class related updates.

**Grading:**

● Midterm	35%
● Final Exam	35%
● Programming Projects	30%

**Scholastic Dishonesty:**

Students who violate University rules on *scholastic dishonesty* in assignments or exams are subject to disciplinary penalties, including the possibility of a lowered or 0 grade on an assignment or exam, failure in the course, and/or dismissal from the University. Representing the work of others as your own will be considered academic dishonesty and will not be tolerated. Such dishonesty harms the individual, all students, and the integrity of the University, and policies on scholastic dishonesty will be strictly enforced.

**Disability Related Needs:**

Please notify your instructor of any modification/adaptation you may require to accommodate a disability-related need.