

DEE2505
DATA STRUCTURES

Chia-Tso Chao

Fall 2015

Administrative Matters

2

- **Time/Location:** Wednesday Y@ED116, Friday EF@ED116
- **Instructor:** Chia-Tso Chao (趙家佐)
- **Email:** mango@faculty.nctu.edu.tw
- **Office:** ED625, TEL: ext. 31671
- **Office Hours:** Tuesdays CD@ED625 (made by appointment)
- **Prerequisite:** Computer programming (C/C++)
- **Required Text:**
 - ▣ E. Horowitz, S. Sahni, and D. P. Mehta, Fundamentals of Data Structures in C++, 2nd Ed., Silicon Press, 2007
- **Online Resources:**
 - ▣ Download lecture notes from E3
 - ▣ <http://140.113.238.4/course/DS2015/index.htm>

Administrative Matters

- TA section

3

- **Teaching Assistants:**
 - **Lab:** ED612, **TEL:** ext. 54178
 - 穆思邦 genius548@gmail.com
 - 黃子軒 sto10219@gmail.com
 - 陳力德 mark920435@livemail.tw
- **Office hours**
 - Made by appointment

Course Objectives and Contents

4

- **Objectives:**
 - ▣ Study how to represent data, how to manipulate them, how to analyze the efficiencies
 - ▣ Have fun!
- **Contents:**
 - ▣ Basic concepts: C++ and algorithms
 - ▣ Arrays
 - ▣ Stacks and queues
 - ▣ Linked lists
 - ▣ Trees
 - ▣ Graphs
 - ▣ Internal sorting
 - ▣ Hashing
 - ▣ Selected advanced topics

Grading Policy

5

- **Grading:**
 - Programming assignments: 40%
 - Two tests (Midterm: 30% + Final: 30%)
 - Class participation: bonus
- **Homework and Programming Assignments:**
 - Discussions are encouraged, but copying is definitely not.
 - Late submission will not be accepted.
 - Your programs must be written in C++ and able to be compiled on Linux environment
 - Copying someone else's homework/test or part of a homework/test is cheating. No credits for plagiarism.
 - A honor code on the class website must be signed and return before starting doing programming assignment

Reference

6

□ Algorithms

- J. Kleinberg and E. Tardos, Algorithm Design, Pearson, 2006. ISBN: 0-321-37291-3.

□ C++

- H. Deitel and P. Deitel, C++ How to Program, 5th Ed., Prentice Hall, 2005. ISBN: 0131971093.
- S. Meyers, Effective C++: 55 specific ways to improve your programs and designs, 3rd Ed., Addison-Wesley, 2005. ISBN: 0321334876.