COMP9024: Data Structures and Algorithms

Course Outline

Hui Wu
Session 1, 2015
http://www.cse.unsw.edu.au/~cs9024

Aims

- The aims of this course are
  - to introduce the basic data structures and algorithms, and
  - to develop skills in the design and analysis of algorithms and data structures.

Outcomes

- If successfully completing this course, you will
  - understand the basic data structures and algorithms;
  - be able to analyse the complexities of software; and
  - be able to design and select appropriate data structures and algorithms for applications.

Topics

- Java programming language
- Analysis of algorithms
- Linked lists, stacks, queues and priority queues
- Trees and search trees
- Sorting, selection and sets
- Maps and dictionaries
- Text Processing
- Graphs

Assessment

- Your final result is calculated based on:
  - Assignments: 30%
  - Final exam: 70%
- Assignments:
  - Four individual assignments.
- Final Exam:
  - Three hours
  - Closed book

Staff

- Lecturer in Charge: Hui Wu
- Office: K17-501D
- Phone: 93856572
- Email: huiw@cse.unsw.edu.au
- Consultation hours: 2:00-500pm Friday
Homework

- I will release homework every week.
  - Solutions will be released one week later.
    - You are strongly recommended to work out the solutions to all questions.
  - Solutions to the selected questions will be covered in the lectures.

Textbook

  - The website for the textbook: [http://www.java4.datastructures.net/](http://www.java4.datastructures.net/)