

CS 2412 Data Structures

Fall, 2017

General information:

Instructor: Dr. Ruizhong Wei (AT 5021, Ex. 8227)

Email: rwei@lakeheadu.ca

Text: R. F. Gilberg and B. A. Forouzan, Data Structures, A pseudo code approach with C, Course Technology, 2005

Time and location: TTh. 1:00 - 2:30 pm., AT 1005

Labs: Tuesdays 3:30 - 4:30 pm. AT 3001

Office hours: Tuesdays 2:30 - 3:30 pm. AT 5021

Course web: <http://ccc.cs.lakeheadu.ca/cs2412.html>

Prerequisite: CS 1431

Description:

This course introduce abstract data structures and basic data structures such as stacks, queues, lists, linked lists, trees, graphs etc. which are basic elements to build algorithms. Applications of these data structures to recursion, simulation, some searching and sorting algorithms will be investigated. Basic complexity analysis of algorithms will be discussed. The theory is reinforced by laboratories, where structured programming using C and C++ standard libraries will be used for implementations.

Materials:

Based on lecture notes, though the text book will be refereed frequently.

Assignments:

There will be 5 - 6 assignments in this term. Late assignments will be penalized and will not be accepted after 3 days.

Examinations:

The regulation of examinations and related matters is described on University's Calendar. This course will have a written mid-term test and a written final exam.

Course grade:

To determine the final grade of the course, the following weights will be applied:

- Assignments: 30%
- Labs: 10%
- Mid-term test: 20%
- Final exam: 40%