

CS 4433 Introduction to Algorithms
Winter 2017

General information:

Instructor: Dr. Ruizhong Wei (AT 5021, Ex. 8227, rwei@lakeheadu.ca)

Text: T.H. Cormen, C. E. Leiserson, R.L. Rivest and C. Stein, Introduction to Algorithms, 3rd Ed., The MIT Press.

Time and location: TTh 1:00 - 2:30 p.m., AT 2015

Office hours: Thursdays 2:30 - 3:30 p.m. AT 5021

Course webpage: <http://ccc.cs.lakeheadu.ca/cs4433.html>

Prerequisite: CS 2412, Math 1271

Description:

An introduction to computer algorithms, their designing and analyzing. Several basic algorithm design approach, such as divide-and-conquer, dynamic programming, greedy algorithms, multithreaded algorithms will be discussed. The complexity of algorithms, mainly in asymptotic notations, will be introduced. P, NP, and NP-completeness concepts will also be discussed.

Materials:

Based on lecture notes, though the text book will be refereed frequently. Some supplementary materials will be distributed in class or put on the course web.

Assignments:

There will be 4 - 5 assignments in this term. Late assignments will be penalized and will not be accepted after 3 days. The assignment will also include a personal project which requires Java programming.

Examinations:

The regulation of examinations and related matters is described on University Calendar.

Course grade:

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

- Assignments: 40%

- Mid-term test: 20%
- Final exam: 40%