Data Structures & Programming

Overview

Golnar Sheikhshahab
Course Info

CMPT 225
Data Structure and Programming
Fall 2017

Instructor: Golnar Sheikhshab <gsheikhs@sfu.ca>

TAs: Bita Azari <bazari@sfu.ca>;
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Textbook:
Course Outline

- C++ Programming Reminder
- Object Oriented Design and Abstract Data Types
- Important Data Structures (Stack, Queue, Tree, Heap, Hash tables, ...)
- Time and Space Complexity Analysis
- Sorting Algorithms
- Graph Algorithms
- Strings and Dynamic Programming (time permitting)
- Memory Management and B-Trees (time permitting)
Grading

- Programming portion
  - 6 programming assignments (5 best) 25%
  - 10 lab assignments 10%
- Exams portion
  - 2 midterms 20%
  - 1 final 45%
- Important
  - Students must attain an overall passing grade on the programming portions of assignments in order to obtain a clear pass (C- or better).
  - Students must attain an overall passing grade on the weighted average of exams in the course in order to obtain a clear pass (C- or better).
Assignments/Exams/Labs

● Assignments are Given on Mondays
  ○ Dates: Sep 18th, Oct 2nd, Oct 16th, Oct 30th, Nov 13th, Nov 27th

● Assignments are due on Sundays at 11:59 PM

● Labs are due at the end of tutorial sessions

● Two in-class midterms on two Fridays
  ○ Dates: Oct 13th and Nov 17th

● Final exam is also on a Friday
  ○ Date: Dec 15th
  ○ All topics are included
Plagiarism

- Absolutely not tolerated
- We use MOSS to detect similar code
- Both giver and receiver will be penalized
- Penalty:
  - 0 on that assignment
  - -5% of final grade
- How to avoid?
  - Start the assignments early
  - Keep your code (electronic and hard copy) to yourself
  - Have only high-level discussions with your classmates
Classroom Etiquette

● Do not talk or whisper
● Do not use computers (it will disturb people around you)
● Keep your cell phone devices silent and out of sight
● Raise your hands before attempting to ask a question or make a comment
● Speak only with permission
● Respect your classmates
How to do well?

- Review the slides before attending the lectures
- Attend the lectures even if you think you know it all
- Use slides as guidelines to read the book
- Do the assignments yourself (try not to get even the high level idea from others)
- If you didn't do well on an assignment, make sure you understand what went wrong
- Watch out for sample problems on the course website and Try solving them on your own
- Make sure your answers are correct by writing a program and testing it
Office hours

5 hours in total

- Instructor office hours
  - Fridays 12:00-14:00 (starting from Sep 15th)

- TA office hours
  - Wednesdays 14:00-17:00 (starting from Sep 13th)

- Please refrain from asking questions right after the class sessions as I'd have to run to other classes/meetings/etc.
Distribution of Information

Announcements at or emails from https://courses.cs.sfu.ca

Slides will be shared at course homepage