CMPT 225 Final Examination
Review and Instructions
Final Examination

- **When**: Wednesday, April 10, 2019
- **Where**: B 9201
- **How long**: 3 hours – 12:00 (noon) to 3:00pm
Final Examination

What: (i.e., what to study)

- **Everything** we covered this semester, however the emphasis will be on the material covered after the midterm
  - Posted partial Lecture Notes + our own lecture notes
  - All Labs and Assignments
  - All code, examples and readings posted on our course web site
  - Good Programming Style (GPS) on our course web site
Final Examination review - 1

See Learning Outcomes at the beginning of each set of lecture notes
-> Use them to check your understanding and to determine what you need to study

- ADT’s
- Sorting algorithms
- Recursion
- Time and space efficiency expressed using the Big O notation
- Linux commands
- C++ code
- etc ...

Not an exhaustive list!
Final Examination review - 2

- Tree
- Binary Tree
- BST
- AVL
- MAX and MIN
- Binary Heap
- Hashing
- B tree
- B+ tree

When to use each of these data collections i.e., the kinds of problems each of them can solve

And compare and contrast various implementations

Underlying data structures:
1. using another data Collection ADT class, e.g., List, as underlying data structure
2. → operations

• characteristics
• public interface
• implementation
• time efficiency of operations

Stack ADT class

Priority Queue ADT class

List ADT class

Dictionary ADT class

Queue ADT class

Binary Search Tree ADT class

Underlying data structures:
1. using another data Collection ADT class, e.g., List, as underlying data structure
2. → operations
More tools to utilize when studying

➤ Textbook
 ➤ Checkpoint Questions throughout sections of our textbook assigned as reading
    ➤ See link to Answers to Checkpoint Questions from our textbook on our Resources web page

➤ Exercises and Programming Problems
 ➤ See link to Solutions for Selected Exercises from the 6th edition of our textbook on our Resources web page
 ➤ There is also a link to the 6th edition of our textbook on our Resources web page
Format of Final Examination

• **First section**: questions requiring short answers  
  ◦ For example: “Yes/no” or “fill in the blank” or a few words, etc…

• **Second section**: questions requiring short to medium length answers  
  ◦ For example:  
    - Drawing a data structure, etc…

• **Third section**: questions requiring longer answers  
  ◦ For example:  
    - Writing an algorithm, code or an answer (in English), etc…
Seating arrangement during final exam

Everything at front of classroom including cell phones, laptops and calculators

Only keep pens, pencils, eraser and student card with you!
Before the final examination starts …

• We distribute the final examination papers
• Once you have received yours, leave it face up on your table and read the instructions printed on its first page
• Please, do not touch, leaf through, or write your name on the final examination paper
  • Why? Because it is unfair to all other students who have not yet received a final examination paper
• When all students have received a final examination paper, you will be instructed to start the final
  • That is when you start touching the final examination paper like writing your name etc… 😊
During the final examination ...

- If you have a question
  1. Have a look at the instructions on page 1 for an answer
  2. If the answer to your question is not on page 1, raise your hand and the instructor will attend to your question
     - The instructor is the only one that will be answering questions during the final examination

- Extra sheet(s) of paper are available
  - To be used to write answers or scribble and calculate
  - To be handed in with the final examination paper
When time is up ...

- You will be instructed to **stop writing**!
- Please, do stop writing and hand in your final examination paper and extra sheet(s) as instructed
- **Why?** Because, if you continue writing, it is unfair to all other students who have stopped writing
Questions?

- Good luck in your study!
- And have a good semester break!