CS103L SPRING 2017

COURSE REVIEW

TEXT

WE'VE COVERED A LOT – IF YOU MADE IT THIS FAR, BE PROUD!

- Representing data
- Basic C++ Syntax:
  - Variables, Expressions, Statements
  - Control flow: if, else; for; while;
- Basic Data Structures
  - Arrays, Images, C-strings

TEXT

MORE TOPICS...

- Procedural programming model (using functions to solve problems)
- Pointers, dynamic memory allocation, pass-by-reference (with pointers)
- File I/O
- Object Oriented Programming model
  - C++ Strings, Classes, Structs, streams, references
- Advanced Data Structures
  - Linked Lists, vectors, deque

TEXT

HIGH LEVEL CONCEPTS

- Problem analysis:
  - Decomposition, Algorithm development
- Procedural Programming Model
- Object Oriented Programming Model
- Representing problems as graphs
- Breath-first search on a graph
- Algorithm Complexity (Big-O runtime)
- Recursion

TEXT

FINAL INFORMATION

- Tuesday May 9th 4:30pm - 6:30pm (but you should know that!)
- SGM 101 - 9am section
- SGM 123 - 11am and 2pm sections
- Same format as midterm: 1 page (front-back) cheat sheet
- O(10 questions)

TEXT

TOPICS FOR THE FINAL

- Definitely on the final:
  - Recursion
  - Linked Lists
  - Algorithm - run-time complexity (Big-O)
  - Object oriented topics: classes, structs, public, private
  - Streams: string streams, or File I/O or both
  - C++ reference variables

TEXT

TOPICS FOR THE FINAL

- Possibly on the final: anything we've covered in class, lab or PA (including, but not limited to)
  - Basic syntax
  - Control flow, looping
  - Scoping, variables, pointers, dynamic memory
  - C-strings, C++ strings
  - Arrays, vectors