CSC 212: Data Structures and Abstractions
01: Introduction

Marco Alvarez
Department of Computer Science and Statistics
University of Rhode Island
Fall 2017

Welcome!

- Lectures
  - TR 11-12:15p @ Beaupre 105

- Labs
  - W 10-11:45a @ Tyler 53
  - W 10-11:45a @ Tyler 55

- Office Hours
  - TBA

- Sections (start next week)
  - TBA

CSC 212?

- Review of basic principles of analysis of algorithms

- Introduction to fundamental data structures and their algorithms
  - arrays, lists, stacks, queues, trees, hash tables, graphs

- Survey of classic algorithms for sorting and searching

- Introduction to C/C++ and programming tools

Recommended Textbooks

- Introduction to Algorithms
- Algorithm Design and Applications
- OpenDSA
- Algorithms
C++?

Recommended Tools

- vim, g++ or clang, gdb (running on Linux)
- although you are free to use any IDE on any platform, we will grade all assignments using g++ on a Linux machine
- Cloud9 is recommended for debugging your source code

CSC 212 is NOT about learning a new programming language

Learning C++

- Read a book

- Enroll in a MOOC
  - Ex: Introduction to C++ @ edX

- Solve Challenges
  - Ex: https://www.hackerrank.com/domains/cpp/cpp-introduction

Grading (subject to change)

- Assignments
  - 5 programming assignments (20%)
  - 1 project (10%)

- Exams
  - 2 midterm exams (40%)
  - 1 final exam (30%)
  - All exams are based on lectures, problem sets, and sections

If your attendance to Lab Sessions is < 70%, you get an automatic 0 for your programming assignment average

Homework Assignments

- Discussions and collaboration are allowed, however you must write your own code

- All assignments are to be turned in on Gradescope by the due date
  - late submissions are NOT accepted

Plagiarism?

- just don’t do it
  - if you get caught (chances are very high), your name(s) will be immediately reported for further sanctions
Participation

- Participation in-class and outside is strongly encouraged
  - lectures, labs, office hours, sections, Piazza, etc.

- Set some time aside to work on …
  - programming assignments, weekly readings, problem sets, discussion sections, preparation for midterms and final exam, learning new technologies and theories

- Although attendance is not taken, you don’t want to skip lectures
  - high correlation between low attendance and low final grades

Need help?

- Try finding answers online
- Post questions on Piazza
  - answer questions, share information
- Contact your TAs
- Come to Office Hours

This is a great time for CS …

- Students, instructors, or both contributed 100% of Questions
- The average response time was 12 Minutes
- 40 students were enrolled...

...and 90% of them made at least one contribution (40 in total).

- 58% of questions received instructor’s responses (128 in total).
- 58% of questions received student’s responses (127 in total).
- And 24% of those were answered by an instructor (30 in total).
More info about CSC 212 …

http://homepage.cs.uri.edu/~malvarez/teaching/212-f17/index