CSC 212: Data Structures and Abstractions

Introduction

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Spring 2018

Welcome!

- Lectures
  - TR 3:30p - 4:45p @ Beaupre 100

- Labs
  - W 10a - 11:45a @ Tyler 53/55
  - W 12p - 1:45p @ Tyler 53/55

- Office Hours
- Course Website
  - http://homepage.cs.uri.edu/~malvarez/teaching/212-s18/index

- Sections (start next week)
  - M 5p - 6p @ TBA
  - T 5p - 6p @ 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

CSC 212 is NOT about learning a new programming language

Recommended Textbooks

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

**Recommended Tools**

- although you are free to use **any IDE** on **any platform**, we will grade all assignments using **g++** on a Linux machine
- CS50IDE is strongly **recommended**!
- **vim**, **g++**, **gdb** (running on Linux)

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**Grading (subject to change)**

- **Assignments**
  - ~6 programming assignments (25%)
  - ~12 weekly assignments (5%)
  - lab attendance (5%)

- **Exams**
  - 2 midterm exams (30%)
  - 1 final exam (35%)
  - All exams are based on lectures and weekly assignments

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**Learning C/C++**

- Read a book

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

- Solve Challenges

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**Programming Assignments**

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

- All assignments are to be turned in on [Gradescope](https://www.gradescope.com) by the due date

- late submissions are **NOT** accepted

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**Plagiarism?**

- just **don’t do it**

- if you get caught (chances are very high), your name(s) will be immediately reported for further sanctions
What is expected from you?

‣ I dislike mandatory attendance … but …
  ✓ students skipping lectures will (very) likely **fail** this class
  ✓ if you don’t attend, its at your own risk

‣ Participate and think critically
  ✓ ask questions (lectures, office hours, Piazza, …)

‣ Start assignments early
  ✓ avoid copying/pasting or google’ing answers

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, weekly assignments, discussion sections, preparation for midterms and final exam, learning new technologies and theories

Reality check

‣ Students fail this class
  ✓ even students that have never failed a class before

‣ After the end of the semester …
  ✓ “Can I change my grade to NW?”
  ✓ “Is there any extra-credit so I can graduate?”
  ✓ “I am in danger of loosing my scholarship, are there any opportunities?”
  ✓ …

Things to avoid

‣ Don’t come to class

‣ Start assignments late

‣ Don’t come to office hours

‣ Don’t study for exams

‣ Don’t read/review materials and resources

‣ Code without extensive testing (hoping for partial credit)
Need help?
- Try finding answers online
- Post questions on Piazza
  - answer questions, share information
- Contact your TAs
- Come to Office Hours

More info about CSC 212 …
http://homepage.cs.uri.edu/~malvarez/teaching/212-s18/index