CSC 212: Data Structures and Abstractions

Introduction

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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
- Data Structures Algorithm Analysis in C++
- 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)

Learning C/C++

- Read a book

- Enroll in a MOOC
  - Ex: [Introduction to C++ @ edX](https://www.edx.org/professional-certificate/introduction-c-programming monstr)

- Solve Challenges

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

Programming 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
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