

Part 0. Overview of the Course

CS 200 Algorithms and Data Structures, Spring 2012
Instructor: Sangmi Pallickara (sangmi@cs.colostate.edu)

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Office Hours

- Instructor
 - Sangmi Lee Pallickara
 - Email: sangmi at cs dot colostate dot edu
 - Office hours: Monday 3:00 ~ 5:00 PM or by appointment
 - CSB456
- Teaching Assistant
 - Keegan Patmore
 - Email: cs480 at cs dot colostate dot edu
 - Office hours: TBA

Course Materials and Communications

- Course Web:
<http://www.cs.colostate.edu/~cs200>
- RamCT
- Text books
 - Data Abstraction and Problem Solving with Java, Addison Wesley*, 3rd Edition
Janet Prichard, Frank Carrano
ISBN-10: 0132122308 ISBN-13: 978-0132122306
 - Discrete Mathematics and its applications*, McGraw Hill; 7th edition (6th edition) Kenneth H. Rosen
ISBN-10: 0073383090 ISBN-13: 978-0073383095

How is this different from CS160/161?

- Larger problems to solve: break down the problem and build a software in a step-by-step and incremental manner.
- Using understanding of data structures (e.g. tree, linear data structure) to build software.
- Using computational complexity to analyze your software.

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Grading information

- Programming Assignments (0~5): 26 %
- Written Assignments (~5): 15 %
- Quizzes: 10 %
- Recitations (attendance): 5%
- Mid-semester exams: 12% x 2
- Final exam: 20%

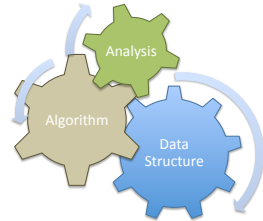
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Letter Grade Point Range

Letter	Range
A	90.0 – 100 %
B	80.0 – 89.9 %
C	70.0 – 79.9 %
D	60.0 – 69.9 %
F	Below 60.0 %

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Course Goals



1. Understanding data structures and algorithms
2. Applying data structures and algorithms to the problems
3. Analyze and predict the efficiency of algorithms
4. Work together to build software

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CS200 Course Structure

- Lectures
- Recitations
- Quizzes
- Midterms (2) and Final Exams
- Programming assignments
- Written assignments

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Lectures

Goal: *understanding* concepts

- MWF 2:00 ~ 2:50 PM
- Readings
 - Chapters in the text books
- Quizzes (10+) : no makeup unless you provide advanced notice to the instructor
- Feedback: Anonymous survey every other week.

Programming Assignments

Goal: Applying the concepts to *build real-world examples*.

- Programming Assignment 1 ~ 5:
 - Search, Sort, and EdgeRank in a Social Network Application
 - Build a software similar to Facebook
 - Manage personal information
 - Information about user's friends and their activities.
 - Provide feature to generate News Feeds for each of the users
- Use the checkin system to submit
 - Directory name: PA0 ~ PA5
 - Late submission: 24 hours with 10 % penalty

Written Assignments

Goal: solving problems using theoretical concepts

- 5 ~ 10 problems
- Hand-written answers: use separate notes
- Submit at the beginning of the class on the due date
- Late submission: submit at the beginning of the next class (10% penalty)

Exams

- Two Mid-semester exams (in class)
- Final exam (in class)

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Recitation Class

- Examples of concepts covered in lecture
- Help session for PAs and Exams
- Attendance and exercises

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Honor code

- Honor students are required to work on a honor project on top of the regular set of assignments.
- The score from the honor project is NOT included to the final grade.
- This should be an INDIVIDUAL effort.
- Honor students should give a presentation (~20 minutes) to the class at the end of the semester about their project.
- If there is any student to select cs200 for their honor program, he/she MUST contact the instructor before February 1 2012.

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Topics

- Part 1: Recursion
- Part 2: Advanced Java Topics
- Part 3: Stacks
- Part 4: Queues
- Part 5: Analysis of Computational Complexities
- Part 6: Trees
- Part 7: Tables
- Part 8: Hashing
- Part 9: Relations
- Part 10: Graphs

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Course Policy

- No make-up for missed exams
 - Except in extraordinary circumstances (e.g., major illness, family emergency)
- No make-up for missed quizzes
 - Except for the case where student provided an advanced notice to the instructor

Course Policy

- No Cell-phone in the class.
- No Laptop during the exam, and quiz.
- If you need to use laptop sit in the back row.
- Instructor will ask to turn off your laptop if it is needed.
- No chatting or crosstalking in class
- Grading will be done by GTA.
 - If you do not agree, talk to him first, then to your instructor.

How to succeed in CS200



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How to succeed in CS200

- Attend the class, ask questions, and discuss
- Check the course web page and RamCT regularly (at least once a week)
- Interact with staff
- Be proactive!
- Share your experiences with other students
 - Discuss assignments with others but the work you turn in must be your own.