CS253: Software Development in C++
Spring 2016

1/20/16
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Lecture 01: Why Take CS 253?
January 20th, 2016

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Introductions
• Your Professor: Bruce Draper
  – Office: 442 CSB
  – Email: draper@colostate.edu
• Your GTAs
  – Ankit Biradar
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  – MuthuKutti Raja Selvakumar (Muthu)
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Why are you here?
• My goal this week is to answer this question
• ...but you have a quiz due Friday morning, so first we need to cover
  – Workload & Grading
  – Resources
  – Expectations

Graded Class Components
• Quizzes (10%)
• Recitations (10%)
• Midterms (20%)
• Final Exam (20%)
• Programming Assignments (40%)

To get a grade of C or better, you must have a total weighted score of 70 or better AND scores of 65 or better in both the programming assignments and the tests (midterms & final)

Reading
• The Weiss text is mandatory.
  – The quizzes are based on it
  – Text is detailed; lectures provide context
  – Text is shallow; lectures provide depth
  – Supplemented by instructor’s notes
• You also need a C++ reference
  – Either the Stroustrup text (good explanations, $)
  – Or www.cplusplus.com (easy lookup, free)
  – Please do not use other C++ web sites as references
• Reading assignments are posted on the web
  – Listed on the progress page.
  – Read Chapter 0 (Zero) for Friday
Quizzes
- There will be quizzes on the reading.
  - Lectures presume you have already done the reading!
  - Approximately 10 quizzes over the semester
- The quizzes are on-line via Canvas.
- You may take a quiz only once.
  - You have 15 minutes
  - You must begin quiz at least 15 minutes before lecture.
- Quiz #0 is due before lecture this Friday

Recitations
- Recitations begin next Monday (Jan. 25th)
  - Recitations are mandatory & graded
  - Recitations are at seating capacity
    - Attend the one you signed up for
  - Recitations do not recapitulate the lectures.
    - They introduce software development tools needed for assignments
      - Unix, debuggers, profilers, unit test frameworks, etc.
    - An exercise is due at the end of most recitations

Tests
- Midterms tentatively scheduled for
  - Wednesday, Feb 24th
  - Wednesday, April 13th
- Final definitely scheduled
  - Thursday, May 12th, at 4:10pm
  - Each midterm is worth 10% of final grade
  - The final exam is worth 20%

Test Style
- Tests are combination take-home/in-class
  - On the Monday before a midterm, I will hand out code
  - Take it home: read it, run it, modify it
  - The in-class test asks questions about that code
  - Tests are also very hard
    - Median scores around 50%
    - Don’t panic – grades are curved

Programming Assignments
- There will be roughly 10 assignments.
- Assignments build on each other –
  - The 2nd extends the 1st, etc.
  - You can’t skip one.
- You are told what to do – not how.
  - Figuring out how is part of what you must learn.
- Due dates are final – no late period!
  - And assignments build on each other.
  - If you miss one, you’ll have to do it anyway.

Grading Largely Automatic
- If it doesn’t compile, zero points
- Assignments may have special instructions
  - Compiler warnings, memory issues, speed ...
- Testing your code is your responsibility.
- Program crashes = zero points for that case.
- Test cases released after grading.
  - If you find a discrepancy, talk to the GTAs
  - If you disagree with policy, talk to me
- What about documentation? Style?
  - Not graded explicitly.
  - Good coding style is its own reward: you live with your “own cooking”
Resources
• Lectures
• Web Site: www.cs.colostate.edu/~cs253
  – Assignments
  – Recitations
  – Instructor’s notes
  – Overheads from lectures (when applicable)
  – Class news
• Textbooks
  – Weiss
  – Reference (Stroustrup and/or cplusplus.com)
• Office hours
  – GTA lab hours (TBD)
  – Instructor office hours (TBD)
• Piazza discussion board
  – https://piazza.com/class/ijc05gmiflx42c

Generally Start Here

Piazza Discussion Board
• Meant for discussions among students
• Questions about assignments, test cases, lectures...
• DO NOT POST CODE
• Professional on-line behavior expected at all times
• Monitored by GTAs and instructors
• Posts are anonymous to students, but not to instructors

Expectations (Lecture)
• Class starts at 10:00
  – Not 10:03, or 10:05, or...
  – Old adage: “To be on time is to be late; to be early is
to be on time”
  – I will end class by 10:50
• Large class
  – I am bad at names (but want to learn as many as
possible)
  – Tell me your name whenever you speak in class
• Cell phones should be in silent mode
  – If you must answer, leave room first
• Open laptops in back of room only

Expectations (Recitations)
• Show up on time to the section you are
  registered for
  – If you show up at another recitation
    • Tell the instructor before the start of recitation
    • You may participate only if there is an open seat
    • Students registered for that section get priority
  – Be attentive during initial instructions
  – Perform exercise, show results to instructor
    • If you can do the exercise quickly, you may leave as
      soon as instructor has seen your results

Expectations (Assignments)
• All work is your own (no team projects)
• Professional behavior in the lab at all times
• Design is your responsibility
  – I teach you about C++ & programming in general
  – I tell you what to do, not how to do it.
• Testing is your responsibility
  – You will not see test cases until after the
    submission deadline
• Do not expect to be able to do most
  assignments in 1 day
Academic Integrity

• All graded work in this course is individual
• And because of the law of large numbers
  — Likely someone here now will try to cheat.
• We will actively look for all such students.
  — ... and impose punishments (see guidelines).
• Also, in cheating, giving is as bad as taking.
• Question: “Can’t I talk with my classmates?”
  — Yes you can and you should:
    • exam study groups, concepts, etc.
  — You can’t design/write code for/with them.