Introduction to CS1 Java Programming

Why Computer Science?
- It's exciting
- It's lucrative
- It's fun (sometimes!)

Instructor
Russ Wakefield
- cs163, Section 001, MWF 2:00 - 2:50pm, Yates 104
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Office hours are posted on syllabus.
Teaching assistants on syllabus.
Curriculum

- C1: Languages, Computers, Operating Systems
- C2: Identifiers, Variables, Expressions, Operators
- C3: Conditionals, Booleans, Logical Operators
- C4: Math Functions, Characters, Strings
- C5: Loops: while, do/while, for
- C6: Methods: Parameters, Return Values
- C7, C8: Single and Multidimensional Arrays
- C9: Objects and Classes
- C12: Exceptions and File Input/Output
- C13: Interfaces
- C18: Recursion
- C20: Lists, Collections, Iterators
- C22, C23: Algorithms, Complexity, Sorting

Java Programming

Resources: Java Textbook

Introduction to Java Programming – Daniel Liang, 10th Edition, Revel License
Resources: Revel

- Online learning system
- Access to the textbook
- Weekly Assignments

Resources: Piazza

- Discussion board
- Used for communication with the teaching staff and with other students

Resources: iClickers

- Register your clicker on Canvas by January 20
- Bring your clicker to every lecture!
Grading Criteria

- Your grade will be based on:
  - Exams: 60%
    - 1st midterm: 15%
    - 2nd midterm: 15%
    - 3rd midterm: 15%
    - Final exam: 15%
  - Programming Assignments: 10%
  - Programming Quizzes: 10%
  - Labs: 10%
  - Quizzes (Revel, IClicker): 10%

Grading Policy

- If you think you have been graded unfairly, visit the cs163 help desk for an explanation.
- If you cannot resolve the problem, email the instructor / teaching assistant.
- All grades and exams are returned within one week of the due date (usually even faster).
- Complaints about grades must be made within two weeks of when the grade is released.

Programming Assignments

- All programming assignments are auto-graded.
- You will be introduced to the auto-grader in the Thurs/Fri lab.
- Pre-testing is 60%
Recitations

- Each recitation is worth 4 points
  - 1 point for attending the recitation
  - 3 points for successfully completing the lab during recitation hours
  - 2 points for showing a completed lab at the beginning of the next recitation

Programming Quizzes

- Given periodically in recitation
- Graded using the auto-grader
- Announced ahead of time

IClicker Quizzes

- Given in lecture
- Requires you bring your Iclicker to lecture every day
- Used to query:
  - Previous lectures
  - Current lectures
  - Peer instruction
Communications

- Talk with your teaching assistant before or after labs, at help desk, or during lab hours.
- Talk with your instructor before or after lectures or during office hours.
- Email your instructor directly only if privacy is needed (health issue, staff complaint, etc.)
- Do not attach comments to Canvas, use the Piazza bulletin board instead.
  - Piazza is in Canvas modules.
  - Topics for assignments, grading concerns, ...

Late Policy

- Every assignment lists a due date
  - Almost always on Mondays at 6pm
  - Full credit requires meeting this deadline
- Every assignment lists a late date
  - Late submissions have 20% penalty
  - After this deadline, no credit is given
- Exceptions only for excused absences
  - Medical emergencies, family emergencies, with documentation
  - If an emergency happens, email your instructor right away

Getting Help

- Web Sites:
  - www.cs.colostate.edu/~cs163
- Lectures, Recitations, Lab Hours, Help Desk
- Lab operators (general questions)
- Office Hours (see syllabus)
- Tutors, Friends, Consultants (be careful)
- Online Textbook, Internet
Academic Integrity

- All assignments, labs, quizzes, exams are solo
  - Unless otherwise specified
  - No notes, books, internet, other people
  - You may get help from course instructors and TAs
  - You may discuss concepts with other students, but:
    - Never share code with another student
    - Never copy code from another student
    - Never let anyone else type in code for you
  - Know the department academic honesty code!

Lecture Expectations

- Come to class
  - Attendance predicts success
- Be active, not passive:
  - Take notes, Ask questions
- Be prepared
  - Do reading assignments before the lecture
- Be on time
  - Lectures start and end on time

Lecture Expectations

- Cell phones off or on vibrate-only
  - If you need to answer, leave the room first
- Laptops for note taking or coding!
  - No games, audio, video, inappropriate websites
- Respect your colleagues
  - No snide or rude comments
  - No comments on abilities
  - No extended conversations
Lab Expectations

- Use the Linux Lab – COMSC 120
  - Not the Windows Lab – COMSC 110
  - No uncovered drinks and no food
- Lab operator on duty during day
  - You can ask them general questions
- Treat the lab as a professional workplace
  - No disparaging comments
  - No loud/rude/distracting behavior
  - Professional comportment at all time
  - No sexual harassment of any sort, not ever!

Practical Matters

As a student in this class…
- You have CS department email:
  - Your address is eid@cs.colostate.edu
  - Automatically forwarded to CSU email
  - You should read this mail regularly
- You have an account of CS systems:
  - CS systems not the same as ACNS machines
  - Your RamCard provides access to Linux lab
  - Same as the EID that you use to login to RamWeb
  - Password is your CSU ID, you should change it!

Reality

A student asks a roommate, “Could you please go shopping for us and buy one carton of milk and, if they have avocados, get six.” A short time later, the roommate returns with six cartons of milk. “Why did you buy six cartons of milk?” asks the student. The reply: “They had avocados.”

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This is exactly what your Java program will do, because computers do what you ask them to do, not what you want them to do!