COMP 110/L: Intro. to Algorithms and Programming
Fall 2017

Instructor: Kyle Dewey (kyle.dewey@csun.edu)
Course Web Page: https://kyledewey.github.io/comp110-fall17/
Piazza Web Page: https://piazza.com/csun/fall2017/comp110l
Office: JD4427, Extension 4316 (not yet connected)

Course Description (from the catalog)
Introduction to algorithms, their representation, design, structuring, analysis, and optimization. Implementation of algorithms as structured programs in a high-level language.

Learning Objectives
A successful student will learn basic software development skills, with emphasis on problem solving, programming, and testing. Java will be used throughout the class, though these skills are broadly applicable to many languages. In particular, successful students will be able to:
• Write programs which manipulate I/O, both from the user and from files
• Write programs which perform arithmetic calculations
• Write programs which use variables, methods, conditionals, loops, arrays, and objects
• Write tests for their code, and debug their own code
• ...among others

Textbook
No textbook is required. If you'd like a textbook for further study, a good supplemental textbook is Daniel Liang's "Introduction to Java Programming". Any edition from the past several years will suffice.

Grading
You will receive a **single combined grade** for the lecture and lab. Your grade is based on the following components:

Lab Assignments	30%
Lab Midterm Exam	15%
Lecture Midterm Exam	15%
Lab Final Exam	20%
Lecture Final Exam	20%

Lab assignments will be frequent, typically with two due per week. The exact number of lab assignments has not been set, as this will depend somewhat on how the class progresses. These are low-stakes assignments which are intended to introduce an entirely new concept for the first time. Lab assignments are submitted through Canvas

(https://canvas.csun.edu/). In the event that there is a problem with Canvas, you may email your assignment to me (kyle.dewey@csun.edu), though this should be considered a last resort.

Plus/minus grading is used, according to the scale below. The left column shows the minimal score necessary to receive the grade in the right column. The highest letter grade possible given the score is chosen; e.g., if you receive an 88.2, you'd receive a 'B+' for the course, which corresponds to being >= 86.5.

If your score is >=...	...you will receive...
96.5	A+
92.5	A
89.5	A-
86.5	B+
82.5	B
79.5	B-
76.5	C+
72.5	C
69.5	C-
66.5	D+
62.5	D
59.5	D-
0	F

Why so many lab assignments?
Software development is analogous to swimming. You cannot learn to swim just by reading a book or listening to a lecture. Instead, you must spend hours in the pool on an incremental basis. While you may be able to "cram" random trivia, you cannot cram the capability to swim. Similarly, you cannot cram software development: you must practice it frequently. These assignments give you plenty of opportunities to practice.

Collaboration for Lab Assignments
All students are required to submit their own individual work. For lab assignments (and **only** lab assignments), students may discuss among each other, as long as they don't digitally share code. That is, you **cannot** simply email your code to someone else. However, you **may** discuss your actual code with someone else, including viewing the code on a monitor. The only stipulation is that **if you do discuss with someone else, say so in your submission.** This is not for punitive reasons; this is only so I get a sense of who is working with who. My intention with this policy is to enable collaborative learning, as opposed to simply sharing a solution.

Plagiarism and Academic Honesty
While collaboration is allowed on lab assignments, you are responsible for all of your own work. You may **not** take code from online sources and submit it as your own. No discussion whatsoever is allowed during exams, except with the instructor. Any violations can result in a failing grade for the assignment, or potentially failing the course for egregious cases. A report will also be made to the Dean of Academic Affairs. Students who repeatedly violate this policy across multiple courses may be suspended or even expelled.

Attendance
In the first week of class, I will take attendance. If you miss both sessions in the first week, you must drop the class, as per University policy (http://catalog.csun.edu/policies/attendance-class-attendance/). After the first week I will not take attendance, though you are strongly encouraged to attend for help with the lab assignments.

Communication
Generally, Piazza is the best place to ask any questions you have related to the class. Piazza allows for anonymous posting, and everyone gets to see posted questions and answers. Piazza also allows for students to answer each other's questions, meaning you can get a faster response on Piazza than if only the instructor was answering questions. If your question contains code in your solution, then be sure to post privately. Alternatively, you can also email me directly (kyle.dewey@csun.edu). Note that while I usually am able to respond within 24 hours, this is not guaranteed.

Late Policy / Exam Scheduling
Late assignments will only be accepted if prior arrangements have been made or there is some sort of legitimate emergency (at my discretion). If you must be absent from an exam, contact me ASAP to see if alternative accommodations can be made.

Class Schedule and List of Topics (Subject to Change)

Week	Dates	Topics
1	8/29 8/31	Compiling and running Java code
2	9/5 9/7	Reading user input, arithmetic operations
3	9/12 9/14	Methods and tests
4	9/19 9/21	Basic conditionals, random numbers, floating point
5	9/26 9/28	Complex conditionals, more random numbers
6	10/3 10/5	Command-line arguments, arrays, loops
7	10/10 10/12	More loops and arrays
8	10/17 10/19	Complex loops and tests, `String.split`, **10/19 Lab Midterm Exam**
9	10/24 10/26	**10/24 Lecture Midterm Exam**, multidimensional arrays
10	10/31 11/2	Introduction to objects, instance variables
11	11/7 11/9	Polymorphism, inheritance, file I/O
12	11/14 11/16	Basic generics, recursion
13	11/21 ~~11/23~~	More recursion, 11/23 Thanksgiving (no class/lab)
14	11/28 11/30	Spillover / review
15	12/5 12/7	More review, **12/7 Final Lab Exam**
16	12/14	**12/14 Final Lecture Exam 3:00 PM - 5:00 PM, JD 1104**