

San José State University

Computer Science

CS 49J Spring 2023

Course and Contact Information

Instructor: James Lee

Office Location: None, office hours are online

Email: james.lee01@sjsu.edu

Office Hours: Fridays, 1:30 to 2:45 PM, or by appointment (for real, i'm quite flexible on time)

Class Days/Time: Tuesdays and Thursdays 1:30 PM to 2:45 PM

Classroom: SH435 (Sweeney Hall)

Prerequisites: Experience with a programming language that is NOT Java.

Course Description

Introduction to the Java programming language and libraries. Topics include fundamental data types and control structures, object-oriented programming, string processing, input/output, and error handling. Use of java libraries for mathematics, graphics, collections, and for user interfaces.

Course Format/Computer Requirements

CS 49J in Spring 2023 will be in person for lectures. Most assignments will be digital. A computer is mandatory, as many of your assignments will be coding assignments. A laptop is preferred so that you may replicate code during lectures and ask questions about your code in person.

To complete the coursework, you will need the following on your computer:

- Internet connection that is capable of checking Canvas course pages, submitting homework, and installing/running the required software, etc.
- Java SE Development Kit 17 (JDK 17 <https://www.oracle.com/java/technologies/downloads/>). The JDK is a development environment for building applications, and components using the Java programming language. Or any JDK that is above 8.
- An IDE for writing/running Java programs. Suggested: IntelliJ IDEA (<https://www.jetbrains.com/idea/>) or Eclipse (<https://www.eclipse.org/downloads/>). You could also use BlueJ, the IDE used in the 46A course here at SJSU. This will allow you to use their course materials for extra practice.
- Git (<https://git-scm.com/downloads>) and a GitHub account (<https://github.com/>) for version control. Only required for the final project, but highly recommended for the rest of the course.

Materials/Textbook

There are **NO** required textbooks for this course. The best supporting documentation for this course can be found on <https://docs.oracle.com/en/java/javase/17/>. Lectures will not be recorded. I will seek supporting Youtube videos that match my course content in case you miss a lecture.

Extra Reading:

Big Java Early Objects 7/e, Cay Horstmann. <https://horstmann.com/bigjava/>

Course Learning Outcomes (CLO)

Upon successful completion of this course, students would be able to:

- Write Java applications which are appropriately documented using Javadoc
- Use Java to read and write text files
- Implement from specifications Java classes that embody data structures
- Use and work with pre-existing implementations in the Java collections framework
- Use iterators and enhanced for loops to traverse collections
- Write a graphics program that draws simple shapes
- Use Java exceptions for error handling

Course Requirements and Assignments

First, a breakdown of the grades you'll get through the courses.

Exam 1	10%	Early March
Exam 2	10%	Early April
Final Exam	20%	Wednesday, May 17 12:15-2:30 PM
Group Project	20%	Due on the last day of the semester. Presentations will happen through finals week.
Homework	30%	Various assignments, both coding and written
Quizzes	10%	Taken in class, on canvas.
Overall	100%	

Grading Scale

Grade	Points	Grade	Points	Grade	Points
A	Above 93.00	B minus	80.00 to 82.99	D plus	66.00 to 69.99
A minus	90.00 to 92.99	C plus	76.00 to 79.99	D	63.00 to 65.99
B plus	86.00 to 89.99	C	73.00 to 75.99	D minus	60.00 to 62.99
B	83.00 to 85.99	C minus	70.00 to 72.09	F	Below 59.99

Note:

Close grades (0.5% or less from the cutoff) will be rounded up depending on your level and quality of class participation.

THERE ARE NO OVERALL GRADE CURVES IN THIS COURSE.

There are many opportunities to make up points in this course.

Exams and Projects

Exams are to be taken SOLO with as many paper notes as you'd like to bring. If your notes are digital, please print them out ahead of time.

Homework assignments and projects are to be done at home, with groups/partners/friends/tutors and whoever else you can get to assist you with the material. Please cooperate with your peers! I accept assignments late. The first 48 hours are free with no penalty. After that, each day reduces the percentage of your score by 10% down to 50%. After one week, I no longer accept assignments.

Classroom Protocol

My class protocol centers on the idea that no one else's learning experience should be affected by any personal decisions you make during my class.

Here are my requirements:

- DO NOT create any excessive noise or otherwise distract the class
- DO NOT come to class if you are ill. If you wake up in the morning feeling awful, please send me an email and I'll do my best to accommodate you needing to be at home.
- DO come to office hours or send me an email if you didn't understand the course material
- DO read assignments as soon as they are announced, even if you don't complete them immediately.

- DO NOT cheat. Instances of academic dishonesty will not be tolerated. Your own commitment to learning, as evidenced by your enrollment at San José State University and the University's Academic Integrity Policy require you to be honest in all your academic coursework. Cheating or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a reduction in final course grade (you will get a warning if it's your first time; 1 letter grade off every time after) and administrative sanctions by the University.

University Policies

Per [University Policy S16-9](#), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on [Syllabus Information web page](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>). Make sure to visit this page to review and be aware of these university policies and resources.

CS 49J Spring 2023 Schedule (Dates to be fixed)

The dates and topics are not set in stone. This is relative to our speed in handling early topics and how much experience incoming students have.

Week	Lesson	Date	Topics, Readings, Assignments, Deadlines
1	1	Jan 25	Administration, Intro to Java
	2		Intro to Java
2	3	Feb 1	Basic Java Concepts
	4		Java Methods, and first assignments
3	5	Feb 8	Java Reference Parameters
	6		Scope, Comments, Decision Statements, Switch statements, Loops
4	7	Feb 15	For loops, accumulator variables, sentinels, and Random
	8		Intro to Classes and Objects
5	9	Feb 22	Classes and Objects, Inheritance, Interfaces, Abstract, InnerClass
	10		File IO
6	11	Mar 1	Other IO
	12		Exceptions and Handling
7	13	Mar 8	Exceptions and Handling p2
	14		Streams and Binary Input/Output
8	15	Mar 15	Linked Lists, Iterators, Sets, Maps
	16		Linked Lists, Iterators, Sets, Maps p2
9	17	Mar 22	Stack, Queue, Priority Queue
	18		Stack, Queue, Priority Queue
10	19	Mar 29	Graphics
	20		Graphics
11	21	April 6	Event Handling
	22	April 11	Generic Classes
12	23	April 13	Generic Classes
13	24	April 18	Multithreading
14	25		Multithreading
Final Exam		May 17 12:15-2:30 PM	Location TBD