

Programming in Java Section 01

CS 49J

Fall 2024 3 Unit(s) 08/21/2024 to 12/09/2024 Modified 08/21/2024

Course Information

Class time*	Section 1: T/Th 10:30 - 11:45 Section 2: T/Th 12:00 - 13:15
Classroom*	Sweeney Hall 435
Instructor	Yan Chen (yan.chen01@sjsu.edu)
Office Hour	T/Th 13:50 - 14:50 on Zoom (https://sjsu.zoom.us/j/84577599747 (https://sjsu.zoom.us/j/84577599747)) Or Make Appointment (https://calendly.com/yan-chen-sjsu/15min) .
Grader	Roy Cheung < siuwa.cheung@sjsu.edu (mailto:siuwa.cheung@sjsu.edu)>

*You can attend either section without notice no matter which one you are officially enrolled in.

**The class is in-person. The lecture part will be recorded but the quality is not guaranteed. Some in-class demos and exercises may not be recorded.

Course Description and Requisites

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.

Prerequisite(s): CS 46B or equivalent in a language other than Java; Allowed Majors: Computer Science, Data Science, Math, Math ITEP, Stats, Applied/Computational Math, Software Engineering, Forensic Science: Digital Evidence, or Undeclared.

Letter Graded

* Classroom Protocols

- Do NOT share any course material publicly (on Canvas, GitHub, etc.) without permission, including but not limited to lecture notes, lecture videos, passwords, homework/exam solutions, and class links.
- No late homework questions (within 24 hours before due, excluding follow-ups) via email.
- **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 (https://www.sjsu.edu/studentconduct/docs/Academic_Integrity_Policy_F15-7.pdf) require you to be honest in all your academic course work. Cheating or plagiarism (presenting the work of another as your own, the use of another person's ideas without giving proper credit, or using AI) will result in a **reduction in final course grade** (you will get a warning if it's your first time except for the last assignment and the final; 1 letter grade off every time after) and administrative sanctions by the University.

☰ Program Information

Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

📊 Course Learning Outcomes (CLOs)

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 Materials

There is no required textbook for this course. The most comprehensive and up-to-date information (documentation, guide, examples, etc.) can be found at <https://docs.oracle.com/en/java/javase/21/> (<https://docs.oracle.com/en/java/javase/21/>). All other materials (lecture notes, homework, etc.) will be posted on Canvas (<https://sjsu.instructure.com/courses/1589562> (<https://sjsu.instructure.com/courses/1589562>), for both sections). You are responsible for **regularly checking the Canvas course page for any updates**, including its messaging system.

Software/Equipment

- Laptop/Desktop with internet connection that is capable of checking Canvas course page, submitting homework, installing/running the required software, etc.
- Java SE Development Kit 21 (JDK 21 <https://www.oracle.com/java/technologies/downloads/#java21>). The JDK is a development environment for building applications, and components using the Java programming language. Or any [JDK that is above 8](https://www.oracle.com/java/technologies/downloads/archive/) (<https://www.oracle.com/java/technologies/downloads/archive/>).
- An IDE for writing/running Java programs. Suggested: IntelliJ IDEA (<https://www.jetbrains.com/idea/>) or Eclipse (<https://www.eclipse.org/downloads/>).
- (Optional) Git (<https://git-scm.com/downloads>) and a GitHub account (<https://github.com/>) for version control.

Further Readings

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

Course Requirements and Assignments

There will be 2 coding assignments, a group project, a final exam, and other class activities for extra credits.

Programming: Coding Assignments

There will be 2 individual assignments that involve programming throughout the course (each assignment includes 2 ~ 3 coding exercises). Schedule your time well to protect yourself against unexpected problems. Start early so you have time to ask questions if you need help. Late work will be accepted with a penalty of 20% per day (will NOT be accepted after 5 days have passed its deadline). **Copying from others' work (from other students, the Internet, or AI) will be considered cheating.**

Programming: Group Project

You need to form a group of 3 ~ 4 by the end of Oct. 10 (tentative) to work on a semester-long group project (a Java App with GUI). Your teammate can be from another section. If you don't find a group before the group formation deadline, you will be randomly assigned to a group that has fewer than 3 people.

The project is divided into 4 milestones and 1 presentation, and here's the tentative schedule:

Due Date	Delivery	Submission	Pts
Sep. 16	Milestone 1	Individual	5
Oct. 14	Milestone 2	Group	5
Nov. 4	Milestone 3	Group	5

Nov. 25	Milestone 4	Group	5
Dec. 3	Code + Presentation	Group	20

Other notes:

- Code + Presentation: each group will need to schedule a 10-minute (tentative) meeting on Dec. 3 (tentative, time slots TBD) to show your completed app and answer questions about your code.
- Pts: most of the submissions will be graded by participation (i.e., you get full points as long as you have a reasonable submission) and all group members will receive the same score, except for:
 - Milestone 1, as it will be submitted individually
 - 15 out of 20 points in Code + Presentation will be graded individually: each group member should be responsible for 1 part (such as UI, functionality, testing, etc.), and you will be graded based on the quality of the part that you are responsible for.

More info will be given in the first class and on Oct. 10 (tentative).

Timed Canvas Quiz: Final Examination

The final will be cumulative. The questions will be similar to the optional exercises. It will be online so you can take it anywhere, but the date and time are fixed: **Tuesday, December 17, 9:45 - 12:00 Pacific Time**. Note that we are following Section 2's time since it is later. You can choose to take it during Section 1's final time (Friday, December 13, 9:45 - 12:00 Pacific Time) no matter which section you are officially enrolled in. Exceptions may ONLY be given in cases of a verifiable emergency.

The Final Exam are closed-all-materials. Copying from others' work (from other students, previous semesters, the Internet, or AI) will be considered cheating.

The final Exam is mandatory as University policy S17-1 (<http://www.sjsu.edu/senate/docs/S17-1.pdf> (<http://www.sjsu.edu/senate/docs/S17-1.pdf>)) states:

"Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment."

Various: (Optional) Extra Credits

You can earn extra credits from various activities such as exercises and discussions. **NO late submission will be accepted for extra credits.**

Exercises

There will be 8 exercises as untimed Canvas Quizzes throughout the semester (2 pts each, due on Mondays). They will be **locked by passwords that are ONLY given in the lectures.**

Note that only **Exercise 0 is mandatory**, which serves the following purposes:

- Roll call for attendance of the first 2 classes (submitting the exercise indicates your attendance).

- Submitting your transcript so the instructor can double-check your prerequisites.
- Setting up the environment to get you prepared for future assignments.

Others

There will be discussions, reading assignments, etc. that are graded by participation (about 1 pt each). They are due on Dec. 9.

Although exercises and discussions are optional, they are highly recommended to practice what you learned in class and to enhance your score. University Policy S16-9 (<http://www.sjsu.edu/senate/docs/S16-9.pdf>) states that:

"Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practice. Other course structures will have equivalent workload expectations as described in the syllabus."

✓ Grading Information

Criteria

Note that the "weight" is not percentage - they are "points". There will be at least 120 points available, including extra credits from optional exercises/activities. More details will be given in class.

Type	Weight	Topic	Notes
Coding Assignments	20	Programming	2 assignments total, 10 pts each
Group Project	40	Programming	4 milestones with 5 pts each + 10 pts for submission + 10 pts for quality
Final Exam	40	Cumulative	Online Timed Canvas Quiz
(Optional) Others	20+	Others	Other class activities, such as exercises, discussions, etc.

Breakdown

The range also refers to "points", not percentages.

- A+ will be given to the top 1% of students.
- Grades near the borderlines will be rounded up depending on your level and quality of class participation (in class and in the Discussions on Canvas).
- The grade might be curved ONLY if the final grades of the class at the end of the semester are not normal.

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 72.99	F	Below 59.99

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), 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 the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Important dates

Visit <https://www.sjsu.edu/registrar/calendar/fall-2024.php> (<https://www.sjsu.edu/registrar/calendar/fall-2024.php>) for the Academic Calendar.

Date	Description
Aug. 22, Thursday	First Day of instruction (for this class)
Sep. 17, Tuesday	Last day to drop without a W grade
	Last day to add classes via MySJSU
Nov. 3, Sunday	Daylight saving time ends (2 AM -> 1 AM)
Nov. 18, Monday	Last day to late drop/withdraw

Date	Description
Dec. 5, Thursday	Last day of instruction (for this class)
Dec. 9, Monday	All class activities are due except for presentation (for this class)
Dec. 17, Tuesday*	Final Exam (for this class) 9:45 - 12:00 Pacific Time
Dec. 21, Saturday	Grades (should be) viewable on MySJSU

* Also can choose Dec. 13, Friday if needed.

Lecture Schedule

Posted on Canvas: <https://sjsu.instructure.com/courses/1589562/pages/course-materials>
(<https://sjsu.instructure.com/courses/1589562/pages/course-materials>) (to be posted)