

Introduction to Programming Section 01

CS 46A

Fall 2023 4 Unit(s) 08/21/2023 to 12/06/2023 Modified 08/25/2023

Time: TuTh 1:30PM - 2:45PM

Classroom: Washington Square Hall 109

Instructor: Yan Chen

- Email: yan.chen01@sjsu.edu
- Office Hours
 - TuTh, 3:00PM - 4:00PM, Online: <https://sjsu.zoom.us/j/81319625408> (<https://sjsu.zoom.us/j/81319625408>)
 - Or in person in DH282
 - Or by [Appointment \(https://calendly.com/yan-chen-sjsu/15min\)](https://calendly.com/yan-chen-sjsu/15min) (Zoom only, link same as above)

Graders:

- KeJian Ooi - kejian.ooi@sjsu.edu (<mailto:kejian.ooi@sjsu.edu>)
- Aditi Jorapur - aditi.jorapur@sjsu.edu (<mailto:aditi.jorapur@sjsu.edu>)
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Course Description and Requisites

Basic skills and concepts of computer programming in an object-oriented approach using Java. Classes, methods and argument passing, control structures, iteration. Basic graphical user interface programming. Problem solving, class discovery and stepwise refinement. Programming and documentation style. Weekly hands-on activity.

Lecture 4 hour/lab 3 hours.

Prerequisite(s): Math Enrollment Category M-I, M-II, or M-III, or MATH 1 with a grade of C- or better; and a major of Computer Science, Applied and Computational Math, Software Engineering, Forensic Science: Digital Evidence, or Undeclared; or instructor consent.

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 meeting 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/senate/docs/F15-7.pdf>), requires 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, or using AI-generated text, etc.) will result in a reduction in final course grade (for assignments, 1 letter grade off every time except the first time; for the final, one letter grade off) 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:

- Analyze and explain the behavior of programs involving the fundamental program constructs
- Write short programs that use the fundamental program constructs including standard conditional and iterative control structures
- Identify and correct syntax and logic errors in short programs
- Choose arrays or array lists for a given problem and write short programs that use arrays or array lists
- Design and implement a class based on attributes and behaviors of objects
- Construct objects using a class and activate methods on them
- Write Javadoc comments for classes and methods
- Write graphics program that draws simple shapes
- Use interfaces and inheritance to describe common behavior of classes and write programs that use that common behavior
- Use an integrated development environment and a debugger

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 on <https://docs.oracle.com/en/java/javase/17/>. All other materials (lecture notes, homework, etc.) will be posted on Canvas. 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 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 above 8](#).
- 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 programming assignments, weekly labs, a midterm, and final, plus other class activities for extra credit.

Programming: Biweekly Assignments

There will be 6 individual assignments that involve programming throughout the course. 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 passed its deadline). Copying from others' work (from other students or/and from the Internet, including ChatGPT) will be considered cheating.

Programming: Weekly Labs

Each week (Sep 1 to Nov. 17), there will be a lab on Friday, which is designed to reinforce what you learn in class. You should be already enrolled in a lab section. Check MySJSU or Canvas for section number, time, and classroom.

You must pass the lab to pass the class.

You will fail the Lab and CS46A if you miss more than 3 labs.

Canvas Quiz: Midterm

The midterm will be held in class on October 12 (tentative). It will be posted on Canvas as a timed quiz, with questions similar to those in exercises (no programming questions). No class meeting on the midterm day, but you need to finish the exam during the required time frame. Exceptions may ONLY be given in cases of a verifiable emergency.

Canvas Quiz: Final Examination

The final will be in the same format as the midterm and is cumulative. The date and time are fixed: **Thursday, December 14, 12:15 - 14:30 Pacific Time**. Exceptions may ONLY be given in cases of a verifiable emergency.

It can be substituted/averaged with a final project; more details will be given in class.

Both Midterm and Final are closed-all-materials.

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."

Canvas Quiz: (Optional) Exercises

You can earn extra credits from various activities such as exercises (8 total) and discussions. Exercises will be **locked by passwords that are ONLY given in the lectures**. NO late submission will be accepted for extra credits.

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> (<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 116 points available, including extra credits from optional exercises/activities. More details will be given in class.

Type	Weight	Topic	Notes
Assignments	40	Biweekly	6 assignments total, 5 pts * 4 + 10 pts * 2
Labs	20	Weekly	10 labs total, 2 pts each
Midterm	10	Cumulative	Oct. 12 during class time (tentative)
Final Exam	30	Cumulative	Can be substituted with final project
(Optional) Others	16+	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	Range	Notes
A	Above 93	
A-	90 to 92.99	
B+	86 to 89.99	
B	83 to 85.99	
B-	80 to 82.99	
C+	76 to 79.99	
C	73 to 75.99	
C-	70 to 72.99	Passing grade
D+	66 to 69.99	
D	63 to 65.99	
D-	60 to 62.99	
F	Below 60	Contact instructor if want a WU instead

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-2023.php> (<https://www.sjsu.edu/registrar/calendar/fall-2023.php>) for the Academic Calendar.

Date	Description
Aug. 22, Thursday	First Day of instruction (for this class)
Sep. 5, Friday	Last day to drop without a W grade
	Last day to add classes via MySJSU
Nov. 5, Sunday	Daylight saving time ends (at 2:00 AM Pacific Time)

Date	Description
Nov. 13, Monday	Last day to late drop/withdraw
Dec. 5, Tuesday	Last day of instruction (for this class)
Dec. 10, Sunday	All class activities due except for final (for this class)
Dec. 14, Thursday	Final examination (for this class) 12:15 - 14:30 Pacific Time
Dec. 20, Wednesday	Grades viewable on MySJSU

Lecture Schedule

Posted on Canvas: <https://sjsu.instructure.com/courses/1570694/pages/course-materials>
(<https://sjsu.instructure.com/courses/1570694/pages/course-materials>)