

San José State University
Department of Computer Science
CS151, Object-Oriented Design, Section 6, Fall, 2019

Course and Contact Information

Instructor:	Fabio Di Troia
Office Location:	DH282
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mEmail:	fabio.ditroia@sjsu.edu
Office Hours:	Thursday 17:30 – 19:30
Class Days/Time:	MW 13:30
Classroom:	SCI311
Prerequisites:	MATH 42, CS 46B, and CS 49J (or equivalent knowledge of Java) (with a grade of "C-" or better in each); Computer Science, Applied and Computational Math or Software Engineering majors only; or instructor consent.

Course Format

Faculty Web Page and MYSJSU Messaging

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on [Canvas Learning Management System course login website](#) at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through [MySJSU](#) at <http://my.sjsu.edu> (or other communication system as indicated by the instructor) to learn of any updates.

Course Description

Design of classes and interfaces. Object-oriented design methodologies and notations. Design patterns. Generics and reflection. Exception handling. Concurrent programming. Graphical user interface programming. Software engineering concepts and tools. Required team-based programming assignment.

Course Learning Outcomes (CLO)

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

1. OO Design:
 - a. Introduce core UML concepts
 - b. Introduce a simplified OO analysis and design methodology
 - c. Present the concept of design pattern
 - d. Present the concept of a software framework

2. Java Language:
 - a. Make students proficient in the use and creation of interfaces and inheritance hierarchies
 - b. Make students proficient in the Java type system
 - c. Introduce threads and thread safety

3. GUI Programming:
 - a. Introduce a GUI toolkit, including basic widgets and the event handling mechanism.

Required Texts/Readings

Textbook

No textbook is required for this course. All the necessary material will be on the Canvas course page.

Other Readings

None

Other technology requirements / equipment / material

None

Course Requirements and Assignments (Required)

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

Homework, Midterm and Final exam are expected for this class. Homework is due on Canvas by class starting time on the due date. Each assigned problem requires a solution and an explanation (or work) detailing how you arrived at your solution. Cite any outside sources used to solve a problem. When grading an assignment, I may ask for additional information.

NOTE that [University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states that "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

Final Examination or Evaluation

The final project will be submitted online through the Canvas course page.

Grading Information

- Homework, 25%
- Midterm 1, 25%
- Midterm 2, 25%,
- Final Project, 25%

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See [University Policy F13-1](http://www.sjsu.edu/senate/docs/F13-1.pdf) at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

Determination of Grades

Semester grade will be computed as a weighted average of the scores obtained in each of the three categories listed above.

No make-up tests or quizzes will be given and no late homework (or other work) will be accepted. Also, in-class work must be completed in the section that you are enrolled in.

Nominal Grading Scale:

Percentage	Grade
92 and above	A
90 – 91	A-
88 – 89	B+
82 – 87	B
80 – 81	B-
78 – 79	C+
72 – 77	C
70 – 71	C-
68 – 69	D+
62 – 67	D
60 - 61	D-
59 and below	F

Classroom Protocol

- **Cheating** will not be tolerated.
- Student must be respectful of the instructor and other students. For example, No disruptive or annoying talking.
- Turn off cell phones
- Class begins on time
- Valid picture ID required at all times

University Policies (Required)

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>". Make sure to review these policies and resources.

CS151 / Object-Oriented Design, Fall 2019, Course Schedule

The schedule is subject to change with fair notice communicated via Canvas course page

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	8/21	Introduction
1	8/26	Java
2	8/28	Java
2	9/4	Object-Oriented Design Concepts
3	9/9	Class Design
3	9/11	Class Design
4	9/16	Interface Types and Polymorphism
4	9/18	Interface Types and Polymorphism
5	9/23	Wrap-up
5	9/25	Midterm 1
6	9/30	GUI Programming
6	10/2	GUI Programming
7	10/7	Inheritance and Abstract Classes
7	10/9	Inheritance and Abstract Classes
8	10/14	Java Object Model
8	10/16	Java Object Model
9	10/21	Frameworks
9	10/23	Frameworks
10	10/28	Wrap-up
10	10/30	Midterm 2
11	11/4	Multithreading
11	11/6	Multithreading
12	11/13	Multithreading
12	11/18	Additional Design Patterns
13	11/20	Additional Design Patterns
13	11/25	Additional Design Patterns
14	12/2	TBD
14	12/4	TBD

Week	Date	Topics, Readings, Assignments, Deadlines
15	12/9	Wrap-up
Final Exam	12/13	Time: 12.15 – 14.30