SJSU SAN JOSÉ STATE UNIVERSITY

College of Science · Computer Science

User Interface Design

CS 235

Spring 2026 Section 01 In Person 3 Unit(s) 01/22/2026 to 05/11/2026 Modified 01/21/2026

Contact Information

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Office Hours

Tuesday, Thursday, 2:00 PM to 3:00 PM, MH 216

Note: I would appreciate it if you could schedule an appointment using Zoom Scheduler and provide a brief description of your needs, so that I can better prepare.

Course Information

This course introduces the principles and practices of designing effective user interfaces for modern digital applications. Students explore core concepts in human–computer interaction (HCI), usability, visual design, and interaction patterns through lectures, case studies, and research papers. Emphasis is placed on emerging interface technologies, including applications in design, engineering, entertainment, and virtual/augmented reality (VR/AR). A term project provides hands-on experience in creating, prototyping, and evaluating user interfaces using contemporary design tools and user-centered methods.

Course Description and Requisites

Human-computer interaction principles. Direct manipulation, focus plus context, interaction history; interfaces for websites and website collections; usability testing; role of metaphors; case studies; advanced topics include information visualization, interfaces for collaboration, intelligent interfaces, and software

agents.

Prerequisite(s): CS 130 or CS 116A, and Graduate standing. Allowed Declared Major: Computer Science, Bioinformatics, Data Science. Or instructor consent.

Letter Graded

Classroom Protocols

- Laptops may be used during class for notetaking and viewing lecture slides or lab materials.
- Cellphones must remain unused during class unless required for SJSU system authentication or for participating in quizzes.
- If you arrive late or need to leave during the lecture, please enter through the rear of the classroom and sit in the back to minimize disruptions.
- All students are expected to show respect toward both the instructor and their peers, promoting an environment of mutual understanding, collaboration, and courtesy.
- Students should use the Canvas messaging function to contact the instructor. Private emails sent directly to the instructor may be lost due to the high volume of messages received.
- The instructor does not respond to messages outside normal business hours, on weekends, or on holidays.
- Homework code reviews and technical troubleshooting will be handled during office hours or upon appointment request.

Use of AI tools

The use of AI tools is allowed to help and enhance your learning experience, but they should never replace your own critical thinking. **Use them as a helper, not a shortcut.**

- Approved:
  - Brainstorming ideas for projects or papers.
  - Getting explanations of difficult concepts.
  - Checking grammar and clarity.
  - Draft feedback or structure suggestions.
- Not Approved:
  - Submitting AI-generated work as your own without acknowledgment.
  - Using AI to complete take-home tests, quizzes, or other “no-assistance” assessments.
  - Copying AI output word-for-word into assignments without modification.
  - Generating misinformation or inappropriate content.

Students must disclosure the use of AI tools using SAID — Student AI Disclosure and submit the certificate along with their work.

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 will be able to:

- Understand the process of user interface design.
- Explore and gain an understanding of current research in the field through selected readings and presentations.
- Apply core UI design principles to create user-friendly digital interfaces.
- Develop wireframes, user flows, and interactive prototypes.
- Evaluate and critique interfaces using usability heuristics and accessibility standards.
- Collaborate effectively in teams and present the work to stakeholders.

Course Materials

Suggested Readings

- Spolsky, A.J., 2008. *User interface design for programmers*. Apress.
- Lazar, J., Feng, J.H. and Hochheiser, H., 2017. *Research methods in human-computer interaction*. Morgan Kaufmann.
- Notes and research papers giving by the instructor

Note: Learn how to use permalink to access the library's electronic resources, including databases, journals, articles, and eBooks here via Permalinks Introduction - Permalinks - Dr. Martin Luther King, Jr. Library at San José State University Library

Course Requirements and Assignments

Course Format:

- Lectures & Readings: Learning concepts and techniques based on the textbook, enriched with case studies and real-world examples.
- Labs & Projects: Weekly exercises in Unity and prototyping tools to reinforce concepts.
- Capstone Project: Design, prototype, and develop a playable game, showcasing both creative vision and technical execution.

Course Requirements:

- Engagement (3%)
- Reading exercises/Quiz (7%)
- Heuristic Evaluation (20%)
- User Research Report (20%)

- Midterm (10%)
  - The midterm can be either an exam, a take-home problem, or a project update, depending on the course needs.
- Storyboard Wireframes (20%)
- Peer Design Review (10%)
- Presentations (10%)

Note:

- While attendance is not used as a direct criterion for grading, students are expected to attend all class meetings. Active participation is essential to ensure meaningful engagement and shared benefit for the entire class, as outlined in University Policy F69-24.
- 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 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.

✔ Grading Information

Criteria

Student development projects will be evaluated based on the following criteria:

- Fulfillment of all required features and project specifications.
- Reliability and effectiveness of the implemented features under expected usage.
- Overall quality of submitted work, including clarity, structure, and quality of code, as well as any required documentation.

Missed Assignments or Exams

If a student must miss an assignment deadline or exam due to illness or another emergency, the situation must be reported before or within one week of the due date. Documentation, including the date of the incident, may be required.

Determination of Grades

Semester grades will be determined using a weighted average based on the scores earned in the specified categories. Late submissions of homework or other assignments will not be accepted. Additionally, in-class activities must be completed within the student's assigned section.

Nominal Grading Scale:

Letter Grade	Range
A	100% to 94%
A-	< 94% to 90%

Letter Grade	Range
B+	< 90% to 87%
B	< 87% to 84%
B-	< 84% to 80%
C+	< 80% to 77%
C	< 77% to 74%
C-	< 74% to 70%
D+	< 70% to 67%
D	< 67% to 64%
D-	< 64% to 61%
F	< 61% to 0%

Note: Please be aware that numerical grades will not be rounded when converting to letter grades. For instance, a final score of 93.9% will result in an A-, not an A.

You may review your grade throughout the semester. However, your final grade will be updated after all assignments have been graded.

University Policies

Per University Policy 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) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

The course schedule is subject to change with one week's notice.

Week	Date	Topic	Note

1	01/22	Introduction	
2	01/27, 01/29	What is usability and user experience design?	Team Formation
3	02/03, 02/05	What is the practice of mobile and multi-device interaction design?	
4	02/10, 02/12	How to conduct a user interface inspection?	
5	02/17, 02/19	Heuristic Evaluations (Special topic)	
6	02/24, 02/26	How to understand and communicate people's needs and behaviors?	Assignment 1 due
7	03/03, 03/05	Conducting User Research (Special topic)	
8	03/10, 03/12	How to bridge the gap between the problem and design space?	Assignment 2 due
9	03/17, 03/19	Conducting Usability Tests (Special topic)	
10	03/24, 03/26	What are the essentials of visual interface design?, Midterm Exam	Midterm 03/26
	03/30 - 04/03	Spring Recess	No classes
11	04/07, 04/09	Accessibility and Inclusive Design	Assignment 3 due
12	04/14, 04/16	Peer Design Reviews, Project Update (Special topic)	
13	04/21, 04/23	Giving and Receiving Design Feedback	Assignment 4 due
14	04/28, 04/30	Project Discussion/Final Project Presentation	Final Presentation

15	05/05, 05/07	Final Project Presentations	
16	05/14	Final Project Presentations	

For special topics, sessions may require students to watch recorded lectures, review supplementary videos and readings, or participate in activities, depending on the needs of the course.