25/SP Experimental Coding

DSD-4711-B

School of Visual Arts
BFA Design
Spring 2025

Class Times / Description

Class Times: 01/15/25-04/30/25, Wed 12:10PM-03:00PM

Course Description

This course provides an introduction to experimental coding for design through a series of hands-on technical exercises and projects. During the semester HTML, CSS and p5.js (JavaScript library) will be used to illustrate the fundamentals of computational design. We will learn techniques to build for responsive web design, generative design and digital interaction. This course is designed for students with no prior coding experience. *Note: Open to junior and senior advertising and design majors only.*

Faculty Information

Instructor: Sam Heckle
Pronouns: they / she
Email: sheckle@sva.edu

Course Outcomes

After completing this course, students will:

- Basic understanding of manipulating data with JavaScript (variables, loops, and arrays)

- Order of logic operations in JavaScript (conditionals and functions)
- Understanding the p5.js library by demonstrating use of effective graphical modifications

Course Requirements

Attendance / in-class participation	15%
In-Class Practice - cannot be resubmitted	15%
Exercises*	20%
Midterm Project - cannot be resubmitted	20%
Final Project - cannot be resubmitted	30%

*** Re-submission Policy**

You can resubmit any on-time submitted exercises based on feedback for full credit as long as you notify me in two ways:

1) send an email with the name of the updated submission
2) write that you updated the assignment in the assignment comments

You can resubmit any work up until the last day of class.

Late Work Policy

Any work is considered late if it is submitted after midnight the day before class begins. For every day the work is late, the student will receive a 10% penalty. You are not allowed to resubmit late work for an updated grade.

On Returning Grades

I will try my best to give you timely feedback on submitted assignments. This will generally go over any re-submissions and late work. If you resubmitted at some point between these dates it will be looked at on or before the next grade update.

On Using External Tools

We will constantly be checking the p5.js reference site, and we have access to the entire world wide web and all the history of p5.js. For any project, you must write a short write up of your inspiration and challenges. You must provide sketches, stackoverflow, and other non-p5 reference links you looked at. I will try and dissuade you from using ChatGPT and other code-generating software since it defeats the purpose of learning how coding works in this artistic capacity. If you do use any AI tools, you must reference how you used it (provide screenshots of your logs, provide the prompt). This includes any AI generated artwork you use as a part of your sketches.

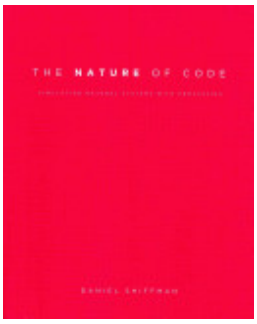
If you do not significantly change a sketch, or if I find you have plagiarized code, or you did not accurately document your process using a code-generating tool, you will receive a 0 for the assignment and a strike. If you receive two strikes you will automatically fail the class.

Required Materials

p5.js Editor
https://editor.p5js.org/

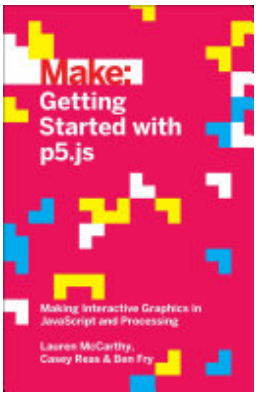
p5.js Reference
https://p5js.org/reference/

Recommended Materials



The Nature of Code
Link: https://natureofcode.com/book/
ISBN: 9780985930806
Authors: Daniel Shiffman
Publisher: Nature of Code
Publication Date: 2012-01-01

Getting Started with P5.js
Link: https://www.oreilly.com/library/view/getting-started-with/9781457186769/
ISBN: 9781457186776
Authors: Lauren McCarthy, Ben Fry, Casey Reas



Publisher: Make Books
Publication Date: 2015-05-25

Generative Design
Link: http://www.generative-gestaltung.de/2/
ISBN: 9781616897840
Authors: Benedikt Gross, Hartmut Bohnacker, Julia Laub, Claudius Lazzeroni
Publisher: Chronicle Books
Publication Date: 2018-11-13

Course Outline

Date	Topics
1/15	Lecture: Syllabus Overview, Class Expectations, Introductions Tutorial: Introduction and Drawing in p5.js
1/21	** Last Day Course Adjustment 1/21
1/22	Lecture: Data Storage with Variables Tutorial: Debugging and Animating with Variables
1/29	Lecture: Conditionals Tutorial: Interaction with Conditionals
2/5	Lecture: Code Organization pt. 1 Tutorial: Functions
2/12	Lecture: Repetition Tutorial: Loops (while and for)
2/19	Lecture: Code Organization pt. 2 Tutorial: Arrays
2/26	Midterm Project Presentations

3/5	** No class: Spring Break
3/12	Lecture: Object Oriented Programming Tutorial: Classes, Review Functions and Arrays
3/19	Lecture: Incorporating Sound Tutorial: p5.sound.js
3/26	Lecture: Pixels Tutorial: Images, Pixels, and Color
4/2	Lecture: HTML/CSS and the DOM Tutorial: p5.js DOM
4/9	Lecture: External Libraries Tutorial: Video, BlasePose, Text
4/16	Zoom: Final Project Check-ins 1:1
4/23	In-Class Final Project Check-ins & Group Feedback
4/30	Final Project Presentations ** Last Day of Class

Policies

Academic Integrity

Academic dishonesty, including plagiarism, will not be tolerated. Students found to have committed an act of academic dishonesty will fail the assignment for which an infraction is suspected and substantiated. More serious violations will be handled through the process enumerated in the SVA Handbook. Put simply, make sure your work is your own.

Students with Disabilities

SVA is committed to ensuring access to educational materials and instruction for students with disabilities. To receive disability accommodations for this course, students must register with SVA's Disability Resources office. Once the student is approved for accommodations, the instructor will be notified. Instructors do not have to provide accommodations unless they have received notification from Disability Resources. All instructors are required to adhere to the school's policies regarding accommodations for students with disabilities. Students who have a need for academic accommodations, or suspect they may have a disability, should contact Disability Resources at disabilityservices@sva.edu.

SVA Attendance Policy

The ***SVA Handbook*** says: The School of Visual Arts is a professional art college dedicated to teaching and learning. Attendance is required in all courses, and the individual faculty member determines the number of acceptable absences, if any. However, students who are marked absent for one-third of the sessions for a given course will be administratively withdrawn from the course with a grade of W.

Pronouns and Chosen Names

Students may indicate their pronouns and preferred/chosen first name through MyServices; this information will then appear on class rosters (go to: https://myservices.sva.edu/Student/UserProfile and select "Edit Personal Identity"). Additionally, students are encouraged to record the pronunciation of their names using NameCoach, located in your account settings in Canvas.

Please let your instructor know the preferred name and pronouns by which you would like to be referred, if that information does not already appear on the roster. A student's chosen name and pronouns should be respected at all times.

Artificial Intelligence

Allowance of generative AI use in coursework is determined primarily at the departmental level. Students should follow institutional guidelines for responsible AI use. The following resources can be a helpful starting point.

Taking Responsibility for AI Use

Why AI is Allowed to Lie

Search Engine vs Reasoning Engine

BFA Design & BFA Advertising AI Position and Policy

The Department recognizes that like all technological advancements, the presence, evolution,

and rapid integration of AI is not something that can be ignored, dismissed, or discounted.

The Department believes that AI can be an effective, useful, and powerful tool in the classroom

but is not a substitute for critical and strategic thinking, creativity, spontaneous insights, and

interpersonal collaboration.

The Department encourages students to always be curious, experimental, innovative, and hard-working. As part of these efforts students may make use of and work with AI but never as a replacement for the qualities listed above.

The Department cautions that the ease and polish of AI should not result in an altered dynamic whereby students passively cede control of and visions for their work to AI.

The Department requires that students who make deliberate use of AI ensure that proper credit is given in the classroom, portfolio, and any award/competitions. At minimum, credit should include the AI tool (ChatGPT, Midjourney, etc) and preferably a brief explanation of specific elements in the work that were created using AI.

The Department requires students to be able and willing to present the full creative process of any project in order to defend against accusations of improper and/or dishonest AI usage.

The Department reminds students that while each instructor's AI policy varies, in general, work made using AI risks relinquishing any copyright, ownership, and other IP concerns that a student might otherwise retain over their work.

It remains at the discretion of each individual faculty member to determine how, if at all, AI is utilized by students in each course they teach. Individualized policies ought to be clearly included in each syllabus and discussed, as necessary, at the start of the course.

Attendance

Students who are late more than twice will result in an absence. Two absences will result in a drop in a letter grade, and four absences will result in automatic withdrawal from the class.

There are no excused absences and unexcused absences. There are only absences. Any more than 3 absences will affect your grade. Two late arrivals (more than 5 minutes after start time) will count as 1 absence.

Communication

Please send me an email (sheckle@sva.edu) for *any* type of communication.