

PUCD 2035

Core 1: Interaction

Program	School of Art, Media, and Technology: Communication Design
CRN	2751
Semester	Fall
Meeting Day	Tuesday
Meeting Time	9:00am - 11:40am
Building/Room	Parsons 2 W 13th, Room 501
Instructor & Email	Nika Simovich Fisher / simovicn@newschool.edu
Class Website	cif22.labud.nyc

Course Description

Core 1: Interaction is designed to introduce students to programming as a creative medium—as a way of making and exploring. The coursework focuses on developing a vocabulary of interaction design principles which can then be applied across a range of platforms. Students are encouraged to experiment with various media, tools, and techniques, ultimately producing a portfolio of interactive and visual projects designed for the screen. An emphasis is placed on typography as it applies to a screen context, research-based problem solving and a learning-through-making approach to technical skill building. Historical and current interaction design precedents will be discussed.

Readings

1. Casey Reas, Chandler McWilliams, and LUST, *Form+Code in Design, Art, and Architecture*
2. Kimberly Elam, *Geometry of Design*
3. Armin Hofmann, *Graphic Design Manual*
4. Robert Bringhurst, *The Elements of Typographic Style*
5. Frank Chimero, *The Shape of Design*
6. Leah Buley, *The User Experience Team of One*
7. Compiled by Laurel Schwulst, *Very Interactive Library*
8. Paul Ford, *What is Code?*

Course Outline

Unit 1 Week 1-4: Working methods

The first segment of Core Interaction will focus on the tools and concepts required for building interactive experiences. We'll use the languages of the web because they're accessible and immediately open up new modes of communication for designers, but the concepts will be transferable to any screen-based or

interactive media.

In weeks 1-4 we will focus on:

- File management (naming, organization, file paths)
- Setting up and starting a new project
- Tools (code editor, inspector, git/github)
- HTML/CSS basic concepts and syntax
- Figma (components, prototyping, grids, canvas sizing)

Unit 2 Week 5-8: Digital canvas

In our second segment, we'll investigate how designing for the digital canvas differs from other media. We will aim to understand the inherent complexities and how to use them to create compelling digital experiences.

In weeks 5-8 we will focus on:

- Typography with HTML/CSS
- CSS selectors (cascades, combining, parent/child, pseudo)
- HTML structure (box model, dissecting a web page)
- Layouting (position, float, flexbox, grid)
- Designing for the digital canvas (how big is a browser?)

Unit 3 Week 9-11: Designing for interaction

Thinking about a website as a series of linked pages, we'll take the concepts we used to make individual web pages and apply them to larger systems. We'll explore how our systems can be designed to flex, rather than break, under a wide range of variables while still maintaining the original intent of the design.

In weeks 9-11 we will focus on:

- Multi-page systems
- Programming basic user interactions (:hover, basic JS click, etc.)
- Time-based design (interactive states, storyboarding, prototyping)
- User models (entering and receiving data, user flows, UX patterns, ways of navigating)

Unit 4 Week 12-15: Networks

Because a website lives in a larger network of apps, websites, devices, and contexts, our final segment will explore how our website lives online. We'll take the work we've done this semester and explore self-publishing and making our work public by putting our work on the internet.

In weeks 12-15 we will focus on:

- Putting a website online (hosting, Github, custom domains)
- Accessibility
- Asset creation (video, image optimization, WebGL)
- Metadata (search, social)
- Connecting to other web services

Learning Outcomes

By the end of the semester, students will be able to:

1. Use a basic vocabulary of interactive media to both give and respond to critique productively.
2. Create compelling interactive experiences through more careful and inspired interpretation/translation of content (i.e. develop great design concepts)
3. Demonstrate an understanding of the iterative making process in interaction design, using incremental methods such as prototyping, user research and evaluation to build toward more advanced work.
4. Conceptualize a product, object, or experience for the web and realize it through coding.
5. Evaluate the difference in designing interfaces for different kinds of devices, their limitations and specific user situations including responsive websites and apps for mobile.
6. Evaluate how typography and its variables are applied to interactive systems to facilitate orientation, support usability and create consistency.
7. Research historic and current design precedents to contextualize your own work.
8. Be able to archive and document work that is printed, on screen or time based in a reflective manner for learning portfolio.
9. Combine your artistic creativity with technology related to the internet.
10. Demonstrate a comprehension of skills, methods, techniques and processes to realize interactive systems, particularly systems for dealing with unpredictable, variable, and ever-changing content.

Assessment Criteria

15%	Attendance & Peer Critique
20%	Unit 1: Working methods
20%	Unit 2: Digital Canvas
20%	Unit 3: Designing for interaction
25%	Unit 4: Networks

Attendance, Grading and Work Submission Standards, Program Policies, Making Resources, and University Policies

All CD classes adhere to the same program and university policies:

https://docs.google.com/document/d/1u358io8doX_SVVMGqIM_oH5V00lccneYu4Ww-uE55QM/edit?usp=sharing

Class Project

Harmonic Collection

TLDR

You're going to pick a theme to explore visually for the duration of the semester. Each week, you'll design and code an entry to a collection that explores this theme. At the end of the semester, you'll deliver a website that houses 11 programmed entries. The website container is part of the design, as well.

Project Description

In mathematics, a sequence is defined as a series of numbers arranged in a predictable pattern. It's a type of number set which follows specific, definite rules. When translated to design, sequencing is a natural part of systems — each individual item has unifying elements that when looked at as a whole, tells a larger story.

In this class you'll create a Harmonic Collection that explores a theme of your choice. Each week, you'll design and code an entry into your collection that makes use of the HTML, CSS, and JavaScript skills we're developing. First, you will pick a theme of your choice (think of it as the overarching concept you'll explore through a series of sketches). Your theme should be open-ended enough to encourage a range of content, but specific enough to inspire an idea each week for twelve weeks. (Example themes: Your daily commute, solitude, interesting words you came across in articles this week). In the final weeks of the semester, you'll refine your 11 entries so that they communicate a clear exploration and deliver a website that houses all of them together. You might need to re-organize or add additional content to your container or entries to fully realize your idea.

Minimum Requirements

- The website and all the entries must be responsive (work on a variety of screen sizes).
- While each entry will be unique, there should be unifying visual components between them
- All hyperlinks must be functional
- You will make use of a combination of HTML, CSS, and JavaScript to communicate a story

Schedule

Week 1	Working Methods
Lecture	Computers, files, and networks
Technical Skills	Using a text editor, locating files on your computer, difference between local and online. Introduce Figma as a design tool.
Homework	Come to class with three ideas for your Harmonic Collection's theme.

Week 2	Working Methods
Lecture	What is HTML?
Technical Skills	HTML basic syntax, hyperlinks, elements, structure
Homework	Harmonic Collection Entry 1

Week 3	Working Methods
Lecture	HTML/CSS basic concepts and syntax, web typography intro

Technical Skills	CSS overview, colors, background images, image filters, stylistic changes. Sketching out ideas in Figma.
Homework	Harmonic Collection Entry 2

Week 4	Working Methods
Lecture	Putting a website online (hosting, Github pages, custom domains),
Technical Skills	Hover states, interactivity with CSS, CSS animations, CSS selectors (cascades, combining, parent/child, pseudo), web typography continued
Homework	Harmonic Collection Entry 3

Week 5	Digital Canvas
Lecture	HTML structure (box model, dissecting a web page)
Technical Skills	Positioning with HTML and CSS, structuring a page, Flexbox Intro
Homework	Harmonic Collection Entry 4

Week 6	Digital Canvas
Lecture	Layouting continued
Technical Skills	Position, float, flexbox, CSS grid
Homework	Harmonic Collection Entry 5

Week 7	Digital Canvas
Lecture	Responsive Units and Media Queries
Technical Skills	Viewport units, percentages, media queries
Homework	Harmonic Collection Entry Midterm Edit – Review and revise all of your entries so that they are responsive and beginning to create a coherent story.

Week 8	Digital Canvas
Lecture	Midterm presentations
Technical Skills	Review responsive units and media queries, In class midterm activity
Homework	Harmonic Collection Entry 6

Week 9	Designing for interaction
Lecture	Lecture: Programming basic user interactions (:hover, basic JS click, etc.)
Technical Skills	JavaScript introduction and overview
Homework	Harmonic Collection Entry 7

Week 10	Designing for interaction
Lecture	Time-based design and randomness
Technical Skills	Interacting with the DOM, interactions with JavaScript (clicking, hovering, time based)
Homework	Harmonic Collection Entry 8

Week 11	Designing for interaction
Lecture	JavaScript Libraries
Technical Skills	What are JavaScript libraries? How and when to use them, showcase p5.js or library of instructor's choice
Homework	Harmonic Collection Entry 9 Bring in questions for the group question and answer session

Week 12	Networks
Lecture	Group question and answer session
Technical Skills	<i>TBD</i>
Homework	Harmonic Collection Entry 10

Week 13	Networks
Lecture	Accessibility, Metadata (search, social), Finishing Touches
Technical Skills	Alt text, sharing images, favicons, selection colors
Homework	Harmonic Collection Entry 11

Week 14	Networks
Lecture	Group question and answer session

Technical Skills	<i>TBD</i>
Homework	Harmonic Collection Final Edit

Week 15	Networks
Lecture	Harmonic Collection final presentations
Technical Skills	
Homework	Happy holidays!

Materials and Supplies

Laptop

Camera

Software: Git/GitHub, VS Code, Figma