

# Art 175, Section 02 ~ Special Topics in Web Development

## The Real Virtual: Creative Coding in the era of SARS-CoV-2

Department of Art & Art History  
San José State University  
Fall 2020

<b>Instructor:</b>	G. Craig Hobbs
<b>Class Days/Time:</b>	Tuesday/ Thursday 12:00pm – 2:50pm
<b>Classroom:</b>	Online via Zoom + Canvas
<b>Email:</b>	<a href="mailto:gcraig.hobbs@sjsu.edu">gcraig.hobbs@sjsu.edu</a>
<b>Office Location:</b>	Art 319/ Zoom <a href="https://sjsu.zoom.us/j/98359452947">https://sjsu.zoom.us/j/98359452947</a>
<b>Office Hours:</b>	Thursdays 10:00am – 12:00pm
<b>Office Phone:</b>	408-924-4401 (please use email instead)
<b>Department Office Location:</b>	Art 116
<b>Department Website/ Email:</b>	<a href="http://www.sjsu.edu/art/">http://www.sjsu.edu/art/</a> <a href="mailto:art@sjsu.edu">art@sjsu.edu</a>

### Course Description

Special Topics in Web Development teaches programming, tools and methodologies for the development of websites, web applications and net-based artworks. Through weekly workshop intensives and programming labs, students will learn how to create websites, user interfaces, stylization, animation and web-optimized content using industry-standard tools HTML5, CSS3, and JavaScript. Students will develop a final collaborative project combining code, content and interactivity inspired by net art and networked installations.

### Fall 2020 Special Topic ~ Viruses

Viruses are the #1 biological entity on the planet. They can hold life in balance, but are also capable of causing widespread impacts on human societies. Today, the SARS-CoV-2 virus has impacted nearly every aspect of our daily lives... How do we respond as artists?

In this Special Topics in Digital Media Art (DMA) course, **Art 175 - 02/ The Real Virtual, Creative Coding in the era of SARS-CoV-2**, we will explore viruses as models of interaction between humans and their world(s) through the lens of art and technology.

With a deep focus on web technologies including HTML 5, CSS, and JavaScript, the course will teach tools for prototyping new forms of interaction using computer vision, sound, video, 2D/3D images and real-time data. Students will develop and create generative artworks in response to the special topics reading and programming assignments on the topic of both human and computer viruses.

**Prerequisite: Art 75 + Art 101** Previous introductory programming experience and a commitment to in-class and self-directed learning and programming practice is required.

<b>Student Learning Objectives</b>	
Upon completion of this course, students will be able to:	
<b>LO1</b>	Create websites using W3C-compliant HTML5 (Hypertext Markup Language)
<b>LO2</b>	Assemble websites using W3C-compliant CSS3 (Cascading Style Sheets)
<b>LO3</b>	Deploy websites using version control and GitHub pages
<b>LO4</b>	Generate web-optimized images, audio, and video content
<b>LO5</b>	Design and code user interfaces for responsive websites and web applications
<b>LO6</b>	Recognize industry-standard protocols for development and deployment
<b>LO7</b>	Practice introductory programming in the JavaScript programming language
<b>LO8</b>	Deploy JavaScript frameworks for responsive CSS websites
<b>LO9</b>	Read about and discuss differences and similarities between biological and computer viruses as they impact web development and contemporary artmaking
<b>L10</b>	Exhibit culminating projects in an online exhibition space using skills learned

### **Course Website/ Canvas Course Management System**

Copies of course materials - the syllabus, readings and course updates - are available via the SJSU Canvas course management system (CMS) <https://sjsu.instructure.com/> <https://sjsu.instructure.com/> All assignments must be submitted via Canvas and GitHub. Canvas will also be used for periodic announcements and any changes to the course schedule. Please make sure your Canvas contact works by viewing the announcements during the first day of class. Please stay up to date weekly with materials on Canvas.

### **Course texts**

Required readings and course programming assignments will be provided via Canvas, GitHub and Slack in post, linked (URL) and downloadable formats. All software and programming documentation required for the course will be made available online.

### **Adobe Creative Cloud Licensing**

San José State provides students, faculty, staff and administrators with free Adobe software for both their campus computers and their home computers. The software may only be used for SJSU-related activities and may not be used for commercial purposes. Faculty are *not* responsible for downloading, troubleshooting of network issues, or licensing agreements between academic end users and Adobe/ SJSU. If you encounter problems downloading or installing Adobe software, you can obtain assistance from SJSU's Information Technology Services (ITS) <http://its.sjsu.edu>

## **Course Protocols**

The course schedule provides dates, topics, and assignments due on the day they are listed in the schedule, unless otherwise noted. The coursework is cumulative and requires a commitment to programming practice to expand upon learned skills. Your ability to advance in web development is directly linked to the amount of time you commit to learning and troubleshooting code, developing websites, and in-class workshops.

You are expected to create work independently, on your own time, and in the classroom lab environment with others. You must create original code and digital art for this course. Fair use section 107, US Copyright Act educational and parody use aside, digital content downloaded from the internet should not be presented as your own work(s) of art unless a [significant transformation of the content has been achieved to create something new.](#)

## **Technology Intensive and Online Courses**

This course adopts an online classroom delivery format via Zoom. Requirements for the course include internet connectivity and access to the Zoom videoconferencing software along with a computer to participate in the classroom activities and submit assignments. See [University Policy F13-2](http://www.sjsu.edu/senate/docs/F13-2.pdf) <http://www.sjsu.edu/senate/docs/F13-2.pdf> for more details.

## **Department Advising**

For information about majors and minors in Art & Art History, for a change of major/minor forms and a list of advisors: <http://www.sjsu.edu/art/> or the Art & Art History department office in ART 116, 408-924-4320, [art@sjsu.edu](mailto:art@sjsu.edu)

## **Art and Art History Library Liaison**

The Art and Art History library liaison is **Gareth Scott**, a resource for academic and creative research. You may contact Gareth via email at [gareth.scott@sjsu.edu](mailto:gareth.scott@sjsu.edu) or via phone (408) 808-2094 at the Dr. Martin Luther King, Jr. Library/ 4<sup>th</sup> Floor

## **University Policies**

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 located here ~ <http://www.sjsu.edu/gup/syllabusinfo/>

## Art 175-02 Assignments and Grading Policy

Assignment prompts will be provided via Canvas. Submission requirements and rubric are defined in the assignment prompt. See course schedule for complete topics and dates.

Dates	Assignment	% pts
Various	Reading/ code assignments x 4 (5% each)	20%
Various	Programming workshop/ labs x 4 (5% each)	20%
09.24	Website 1.0 ~ Basic HTML 5/ CSS	15%
10.15	Website 2.0 ~ HTML 5 Layout using FlexBox and CSS Grid	15%
11.12	Website 3.0 ~ Advanced HTML 5/ CSS + JavaScript	15%
12.01-03	Final creative coding projects and online exhibition	15%
<b>TOTAL</b>		<b>100%</b>

### Grading Policy/ Rubric

**A = 100 - 90% ~ Excellent** = Student exhibits exemplary effort at comprehension and application of the required materials. All creative and technical work is engaging.

**B = 89 - 80% ~ Average** = Student completes assignments, and demonstrates a grasp of key creative and technical concepts. Student participates actively in the classroom.

**C = 79 - 70% ~ Below Average** = Student completes the assignment but may lack enthusiasm or drive to push the work into a detailed creative or critical space. The work lacks creative and aesthetic effort. The work is underdeveloped, incomplete or broken.

**D = 69 - 60% ~ Unsatisfactory** = Student does not complete the work as assigned. Substantial problems exist in student's work.

**F = < 60% ~ Fail** = Student does not submit work, or work is below unsatisfactory level.

### On Grading in the Arts

Grading is a process claimed to be objective. Yet there is, on the other end of that process an individual – the professor – with a subjective opinion that guides that process. As a university professor I do not believe in the use of subjective aesthetic judgment to grade artworks. What one person believes is beautiful, another person may perceive as abject. As such, although aesthetic opinions, judgements and critical discussion are a part of this course, the use of aesthetic opinion is never alone a metric for assessing the value of art.

### Late Work Policy

Work is considered late if posted after the due date/time. The default time for submission of work is the beginning of class, unless specified otherwise in the schedule. For each day the work is late (marked each 24 hours by the day and time of original deadline), the work decreases by half a grade (a B+ goes to B-, a B- to a C+, etc.)

## Art 175 - 02 Course Schedule Fall 2020

Note: Assignments are due on the day listed in the schedule, unless otherwise noted. If you have any questions, contact the professor *in advance of the due date*.

Week	Date	Topics, Assignments, Deadlines
1	08/20	<b>Introductions, course introductions, tools and resources + Q&amp;A</b>
2	08/25	<b>HTML 5 – Hypertext Markup Language</b> Software, tools, protocols and text editors
	08/27	<b>Image optimization for Web Developers</b> Image formats (png, svg, jpg, gif) and image optimization
3	09/01	<b>HTML 5 – Hypertext Markup Language</b> Semantic HTML elements and tags <i>Reading/ code assignment #1 assigned</i>
	09/03	<b>DOM – Document Object Model + HTML 5 Lab</b> Slack and online learning resources expanded
4	09/08	<b>CSS 3 – Cascading Style Sheets Workshop</b> Selectors, properties, and the cascade <b>Reading/ code assignment #1 due</b>
	09/10	<b>CSS – Cascading Style Sheets Lab</b> Coding selectors, properties, and the cascade
5	09/15	<b>CSS 3 – Cascading Style Sheets Workshop</b> The CSS box model, Flexbox, and layout using divs <i>Reading/ code assignment #2 assigned</i>
	09/17	<b>CSS – Cascading Style Sheets Lab</b> Coding the CSS box model, Flexbox, and layout using divs
6	09/22	<b>CSS Group Programming Lab</b> Assignment Website v1.0 final dev <b>Reading/ code assignment #2 due</b>
	09/24	<b>Website v1.0 Review and Critique</b> <b>Assignment due = Website v1.0 ~ Basic HTML 5/ CSS</b>

Week	Date	Topics, Assignments, Deadlines
7	09/29	<b>CSS – Responsive Design Workshop</b> Mobile first design, stacked columns, viewport and fluid widths
	10/01	<b>CSS – Responsive Design Lab</b> CSS Grid for responsive website development
8	10/06	<b>CSS – Responsive Design Workshop</b> CSS Grid for innovation layout <i>Reading/ code assignment #3 assigned</i>
	10/08	<b>CSS – Responsive Design Lab</b> CSS Grid and Flexbox for responsive website development
9	10/13	<b>CSS – Responsive Design Lab</b> CSS Grid and Flexbox for responsive website development <b>Reading/ code assignment #3 due</b>
	10/15	<b>CSS Grid Website Review and Critique</b> <b>Assignment due = Website 2.0 ~ HTML5/ CSS3 layout using FlexBox and CSS Grid aligned with reading topics and discussion</b>
10	10/20	<b>Introductory JavaScript Workshop I</b> Introductory programming concepts in JavaScript using p5.js
	10/22	<b>Introductory JavaScript Workshop II</b> Introductory programming concepts in JavaScript using p5.js
11	10/27	<b>Introductory JavaScript Lab</b> Introductory programming concepts in JavaScript using p5.js <i>Reading/ code assignment #4 assigned</i>
	10/29	<b>Intermediate JavaScript Workshop III</b> Intermediate programming concepts in JavaScript using p5.js
12	11/03	<b>Intermediate JavaScript Lab</b> Intermediate programming concepts in JavaScript using p5.js <b>Reading/ code assignment #4 due</b>
	11/05	<b>Intermediate JavaScript Workshop IV</b> Intermediate programming concepts in JavaScript using p5.js
13	11/10	<b>Intermediate JavaScript Lab</b> Intermediate programming concepts in JavaScript using p5.js
	11/12	<b>JavaScript Assignment Review and Critique</b> <b>Assignment due = Website 3.0 ~ HTML 5/ CSS + JavaScript</b>

Week	Date	Topics, Assignments, Deadlines
14	11/17	<b>Group programming Lab I</b> Final group JS projects planning and development
	11/19	<b>Group programming Lab II</b> Final group JS projects planning and development
15	11/24	<b>Group programming Lab III</b> Final group JS projects planning and development
	11/26	<b>Thanksgiving holiday</b> No Zoom Meeting!
16	12/01	<b>Final group project presentations I</b> Final group projects code review and feedback
	12/03	<b>Final group project presentations II</b> Final group projects code review and feedback
<b>Final Exam</b>	12/10	<b>Final Exam</b> Thursday, December 10th <b>Exhibition of outcomes online</b> <b>Assignment due = Final Group Projects</b>
		<i>Note: This schedule is subject to change. You will be notified of any changes in a timely manner. Any changes will not affect your ability to complete the assigned coursework.</i>

**Per University Policy S16-9, the following language must be included in this syllabus,** “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 practica. Other course structures will have equivalent workload expectations as described in the syllabus.”