# San José State University
# Department of Art and Art History
# Art 101, Digital Media Art, Section 01, Spring 2020

**Course and Contact Information**

| | |
|---|---|
| **Instructor(s):** | Lark Alder |
| **Office Location:** | Art Building 325 |
| **Telephone:** | (408) 924-4589 |
| **Email:** | Lark.alder@sjsu.edu |
| **Office Hours:** | Thursday 9:00am – 10:15am |
| **Class Days/Time:** | Mon/Wed 6:00pm – 8:50pm |
| **Classroom:** | Art 237 |
| **Prerequisites:** | Art 74 + Art 75 |
| **Units: 3** | |

## Course Format

This is a technology-intensive studio class. Lectures and labs are required. All course materials, submissions, and communication will be through the Canvas Leaning Management System course login website at http://sjsu.instructure.com.

## Course Description

Experimental applications in creative coding as an art practice. Focus includes programming interactivity, generative graphics, intro to data visualization and user interface and user experience strategies. Prerequisite: ART 074, ART 075 or instructor consent Misc/Activity: 6 hours activity

New/Emergent Media Art—more than any other artistic medium—is marked by its relationship to developing technology. With each advancement in media/communication technologies, early advocates champion the potential for democratization of idea exchange and positive social impact. However, these utopian visions are quickly subsumed by often dystopian realities of institutional power and control. While building technical skills in JavaScript and HTML/CSS, we will trace trends in Cyber-utopianism and discuss both the internet's potential for collaboration and also its pitfalls as an unprecedented mechanism for surveillance and control. The course will follow a feminist, postcolonial history of computing, highlighting cyberfeminism, theories of surveillance capitalism, algorithmic bias, data bias, call-out culture, fake news, online bullying, and prioritizing students' lived experiences in relationship to the internet. We will look at examples of early NetArt from the 1990s to the present, highlighting expressive and critical uses of the web, critical/queer interactivity, and tactical media.

## Course Goals

This course addresses various coding and digital media fundamentals over the course of the semester including: introduction to programming, digital media formal aesthetics, critical engagement with technology, interactivity, web application deployment, and relationship between interface and content.

## Course Learning Outcomes (CLO)

### Student Learning Objectives

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

CLO1- Develop strategies for student to create their own custom software as art.

CLO2 - Develop criteria for evaluating how to design and produce interactive digital media.

CLO3 - Identify the broad trends of interactive digital media and its aesthetics.

CLO4 - Plan and practice writing simple programs in a several different programming languages/authoring systems.

CLO5 - Articulate and recite introductory programming concepts related to artist making code in different programming languages/frameworks like Processing, Javascript, PHP.

CLO6- Build HTML/CSS based webpages to document their artwork and creative process

## Required Texts/Readings

### Required Readings

No required textbook. Readings will be available on Canvas in pdf format.

- "Avatars and Robots: The Imaginary Present and the Socialities of the Inorganic," Henrietta More, 2012
- "The Dads of Tech," Astra Taylor, Joanne McNeil, 2014
- "Utopian Promises, Net Realities" Critical Art Ensemble, 1998
- "Blaming, Shaming, and the Feminization of Social Media," Lisa Nakamura, 2011
- "'The goal is to automate us': welcome to the age of surveillance capitalism" The Gaurdian, Interview with Shoshana Zuboff, 2019
- "The Enduring Ephemeral, or the Future Is a Memory," Wendy Hui Kyong Chun, 2008

### Additional Recommended Text

Make: Getting Started with p5.js: Making Interactive Graphics in JavaScript and Processing, by Lauren McCarthy, Ben Fry, and Casey Reas

Web Design and HTML, CSS JavaScript and jQuery Set, (2 books), by Jon Duckett

Generative Design: Visualize, Program, and Create with JavaScript in p5.js, by Benedikt Gross, Hartmut Bohnacker, Julia Laub, Claudius Lazzeroni

**Course Web Materials**

ART 101 Course materials can be found on the Canvas Leaning Management System course login website at http://sjsu.instructure.com. You are responsible for regularly checking Canvas and your email for updates. Please make sure your Canvas contact works by viewing the syllabus announcement during the first day of class.

**Library Liaison**

**Gareth Scott**
**email: gareth.scott@sjsu.edu**
**phone: (408) 808-2094**
King Library 4th Floor

Art and Art History Resources: **https://libguides.sjsu.edu/Art**

**Course Requirements and Assignments**

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.

This course will be following a flipped classroom model for learning. Activities traditionally expected in the classroom v. homework will be flipped. **You are expected to watch video tutorials outside of class. Class will focus on creative lab time to complete assignments (traditionally thought of as "homework").** Class will also be used for active learning exercises, review, quizes, and discussion of artists and readings.

This optimizes time for peer and instructor support (a great way to minimize frustration while learning to code). All shorter assignments can be completed in class. Culminating projects for each node might require work outside of class. Video tutorials will be relatively short. Students will be expected to code along with the video: the code itself will not be provided.

There are 5 nodes in this class, each with short exercises and a culminating project.

**Node 1: Avatar** – you will create an animated Avatar (aka face-or-thing) that responds to user input.

**Node 2: Randomizer (pair project)** – this is a short group exercise to create a randomizer for class critiques.

**Node 3: Drawing Machines** – create a program that creates unique, compelling visual output based on user interaction.

**Node 4: Experimental Social Media** – this project integrates p5 sketches into HTML/CSS on a live webpage (hosted via GitHub). Thematically, it asks you to imagine an experimental social media platform for community and care.

**Node 5: Final Project** – Move your skills beyond what has already been covered to create a Final Project that is either generative art or a critical art game. Demos and exercises will be provided in class, but it is expected that you also seek out tutorials on your own.

## Grading Information

Students are required to submit all course assignments on Canvas. Students must also be present for project critiques: **critiques are not optional.**

## Determination of Grades

All assignments must be presented on the due date. 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.). **Remember finished is better than perfect: It is better to turn something in than nothing at all**. Late projects will not have the opportunity for a critique, and none will be accepted 1 week after the deadline. Extensions will only be granted under unusual, extenuating, or emergency circumstances.

All projects are evaluated based on their conceptual content, technical proficiency, and presentation according to the criteria provided below.

## Relative weight of course requirements:

***Assignment type breakdown:***

4 Projects @ 10% each = 40%

1 Final Project = 20%

2 Quizes @ 5% each = 10%

15 Short assignments (readings and code exercises) @ 2% each = 30%

Total = 100%

***Extra Credit:***

Attend a talk / art show and submit 1 page response = 2%

***Grading Criteria:***

A: Excellence

The student fully commits to their project, both conceptually and technically. The final work created not only meets the criteria but it exceeds it. The student demonstrates a full understanding of the course content, and is able to apply that understanding in making original work with their own personal style.

B: Above Average

The student shows an understanding of the expected criteria for the assignment, and a sincere attempt to engage the conceptual framework. The quality of the project is good but not stellar. Technical understanding is demonstrated but has room for improvement.

C: Average

The student demonstrates a limited understanding of the conceptual framework of the assignment, and/or technical execution is underdeveloped with issues that could have been addressed in class or during office hours. The work would improve if more time and/or attention was dedicated to the project.

D: Below Average

The student only shows the slightest understanding of the intent of the assignment. There is a general failure to follow the intent and nuance of the assignment. The project can only be described as something that needs a great deal of work before it is considered something that is complete and meeting the requirements.

**Numeric grade equivalents:**

| *Grade* | *Points* | *Percentage* |
|---|---|---|
| *A plus* | *960 to 1000* | *96 to 100%* |
| *A* | *930 to 959* | *93 to 95%* |
| *A minus* | *900 to 929* | *90 to 92%* |
| *B plus* | *860 to 899* | *86 to 89 %* |
| *B* | *830 to 829* | *83 to 85%* |
| *B minus* | *800 to 829* | *80 to 82%* |
| *C plus* | *760 to 799* | *76 to 79%* |
| *C* | *730 to 759* | *73 to 75%* |
| *C minus* | *700 to 729* | *70 to 72%* |
| *D plus* | *660 to 699* | *66 to 69%* |
| *D* | *630 to 659* | *63 to 65%* |
| *D minus* | *600 to 629* | *60 to 62%* |

**Please note:** Except in cases of documented emergencies, incomplete grades are not given in this course.

"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.

**Additional Note:**

This syllabus is subject to change, in the event of unforeseen circumstances, or in the case that changes will significantly enhance the quality of the course.

**Department Advising**

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

**Classroom Protocol**

Students are expected to be punctual for class and actively engaged during all class meetings. Cell phones, smart phones, or other devices that detract from full attention should be turned off or silenced.

**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 at http://www.sjsu.edu/gup/syllabusinfo/."

# Course Schedule

## Art 101, Section 01: Digital Media Art, Spring 2020

**This syllabus is subject to change.** The instructor will let you know when there are changes in the schedule.

>>> ***In addition to activities listed, we will be regularly viewing examples of Digital Media Art***

| Week | Date | Node | Class Topics | Assignments |
|---|---|---|---|---|
| 1 | NO MEETING | | | |
| | 1/27 | Course Intro | Overview of syllabus<br>How to think like a computer | ***Unless otherwise specified, assignments are due one hour before the next class**<br><br>Complete student info form<br><br>R0 - Prepare response to reading: "Avatars and Robots: The Imaginary Present and the Socialities of the Inorganic," Henrietta Moore |
| 2 | 1/29 | 1: AVATAR | Discuss Reading: "Avatars and Robots: The Imaginary Present and the Socialities of the | 1.0 - Make your avatar: use 10 different drawing functions and built-in width/height values |

| | | | | |
|---|---|---|---|---|
| | | | Inorganic," Henrietta Moore<br>Drawing in p5: calling functions<br>How tell the computer what to do | |
| 3 | 2/3 | | Functions: restructure your drawing into functions | 1.1 - Re-organize your avatar code into functions to eliminate repetition. Create 3 or more functions and use function parameters (also called arguments) at least once. |
| | 2/5 | | Variables<br>Setup and draw loops<br>Console.log & string operations<br>Intro to operators | 1.2 - Replace a value with a dynamic variable tied to the microphone: make your avatar react to sound input !  |
| 4 | 2/10 | | Logical statements and operators<br>Conditional / if statements<br>User interaction: Mouse position | 1.3 - Have shapes/colors change when your mouse moves |
| | 2/12 | | Classes | 1.4 - Create a class to draw a new object and draw multiples of it to the screen |
| 5 | 2/17 | | Animation! Tie it together<br>Ease / accelleration | 1.5 - Finalize animated avatar with animation based on user interaction (bouncing, falling, growing with mouse over / click / keyboard / mic input, etc) |
| | 2/19 | | **Present Avatars**<br><br>**Review** | ...Github setup - do you still have your portfolio site from 75? If not, follow links to set one up before next class<br>* You will also need to install GitHub desktop on Atom (follow second tutorial)<br><br>R1 - Prepare response to reading: "The Dads of Tech," Astra Taylor, Joanne McNeil, 2014 |

| | | | | |
|---|---|---|---|---|
| | 2/24 | 2: RANDOMIZER | GitHub<br>Using Atom<br>HTML / CSS Review<br>Adding p5 sketch to your webpage<br><br>Discuss reading: “The Dads of Tech,” Astra Taylor, Joanne McNeil | 2.0 Create repositories to host your avatar and randomizer as GitHub project pages<br><br>2.1.0 (ungraded) Make an object that stores your student info, with key:value pairs for your name and favorite things (this is due at midnight before the next class, but is ungraded) |
| 6 | 2/26 | | Arrays & Objects<br>Text in p5<br>Deleting items from arrays | 2.1 - Randomizer Final |
| | 3/2 | | Demo Randomizers<br><br>Review for next week's quiz | R2 - Prepare response to reading: “Utopian Promises, Net Realities“ Critical Art Ensemble, 1998 |
| 7 | 3/4 | 3: DRAWING MACHINES | Discuss reading: “Utopian Promises, Net Realities“ Critical Art Ensemble, 1998<br><br>User interacton:<br>Mouse/keyboard inputs<br>Create jpg with saveCanvas() | 3.0 - Make a simple drawing machine |
| | 3/9 | | Random and noise- order v disorder<br><br>Quiz #1 | 3.1 - Add randomness to your drawing machine |
| 8 | 3/11 | | Loops<br>2d array (grid)<br>Pair class exercise in recreating drawings using loops | 3.2 - Add loops to your drawing machine |
| | 3/16 | | Lab<br>Add creative vision / critical content to your drawing machine | |
| 9 | 3/18 | | Attend Talk "*The Devil in Silicon Valley*: A Conversation with Author Stephen Pitti" 6-8pm | 3.3 - Complete drawing machine |
| 10 | 3/23 | | **Demo/Critique: Drawing Machines** | R3 - Prepare response to reading: “Blaming, Shaming, |

| | | | | |
|---|---|---|---|---|
| | | | **Try out with eachother's drawing machines**<br><br>**CSS/HTML review** | and the Feminization of Social Media," Lisa Nakamura, 2011 |
| | 3/25 | 4: Experimental Social Media | Discuss reading: "Blaming, Shaming, and the Feminization of Social Media," Lisa Nakamura, 2011<br><br>DOM: Document Object Model<br>Communication between HTML/CSS and your p5 sketch | 4.0 - Add a DOM interaction to your Randomizer<br><br>* create a new repo for your Experimental Social Media Project |
| | 3/30 | | P5 Canvas as background<br>Using Firebase as database<br><br>(Follow tutorials on creating chat room) | |
| 11 | 4/1 | | Displaying Images in P5 | |
| | | | Relation between sound and image<br>Intro to p5 Sound Library<br>Finding and downloading music and sound effects online | 4.1 - Basic chatroom completed |
| 12 | | | Class Exercises<br><br>Lab | 4.2 - Complete Experimental Social Media Project |
| | 4/6 | | Demo/Critique: Experimental Social Media<br><br>Introduce Final Project | R4 - Prepare response to reading: "'The goal is to automate us': welcome to the age of surveillance capitalism" The Gaurdian, Interview with Shoshana Zuboff, 2019 |
| 13 | 4/8 | 5: FINAL PROJECT | Discuss reading "'The goal is to automate us': welcome to the age of surveillance capitalism" The Gaurdian, Interview with Shoshana Zuboff<br><br>Look at examples of Generative Art and Critical / Art | 5.0 - Proposal for final project |

| | | | | |
|---|---|---|---|---|
| | | | Games<br><br>JavaScript Review for Quiz #2 | |
| | 4/13 | | Student Presentation of Final Project Proposals<br><br>Review for quiz #2 | |
| 14 | 4/15 | | Quiz # 2<br><br>Creating states in games<br>Class game exercise | |
| | 4/20 | | Revisit classes<br>Spawn objects in games | |
| 15 | 4/29 | | Finish class game exercise<br>Lab | |
| | 5/4 | | Pull requests in github<br>Lab and one-on-one meetings | |
| 16 | 5/6 | | Lab and one-on-one meetings | |
| | 5/11 | | ***Last Day of Instruction***<br><br>**Critique and class party** | 5.1 - Final projects due at midnight BEFORE class. Create pull request to add to course github page |
| 17 | 5/13 | | Final Exam 5:15-7:30 | |