San José State University
Department of Art and Art History
Art 107 Advanced Projects in Digital Media Art, 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:	Tu/Thur 12:00pm – 2:50pm
Classroom:	Art 110

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

Advanced issues and application of technology in art. Application of interactive technology in installation and performance. Emphasis on collaborative projects. Course is repeatable up to 6 units. Prerequisite: Art 74 & 75 or permission of instructor. Misc/Lab: Lab 6 hours. Misc/Lab: Activity 6 hours.

This upper level studio course will facilitate sustained investigations into designed interactivity in real space. In-class workshops will provide students with foundational technical skills in implementing augmented reality (AR) and critical design objects using sensors and other computational devices, but most specialized projects will necessitate independent study. The course is project driven with a focus on iterative, research-based artistic practice. Students will develop a project plan that includes the development of three distinct but related pieces which will begin with a written proposal. After the proposal, students will have a chance to meet one-on-one with the instructor to design a production schedule that will identify necessary skill sets and components for production, track deliverables, and document their progress. The third and final iteration of their project trajectory will be presented as part of a class gallery exhibition at the end of the semester.

Course Goals

This course will provide a framework for experimenting with digital media art techniques and

applications in order to develop a cohesive body of work. Critical and theoretical perspectives will be stressed. Projects will be presented in class, at a final show, and documented on student portfolio websites.

Technical skills acquired in AR may result in collaboration with the Hidden Histories Project, an art collaboration between the Japanese American Museum of San Jose, trail-blazing augmented reality artist Tamiko Thiel, and other collaborators. The participating artists will create AR works that engage the rich but often hidden histories of San Jose's Japantown; creating a virtual gallery that extends the reach of the museum to the neighborhood. SJSU student assistants will work under the advisement of DMA Professor Rhonda Holberton, tentatively over the Summer 2020.

Course Learning Outcomes (CLO)

Student Learning Objectives

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

LO1 Design and build interactive software
LO2 Generate meaningful human-computer interaction and expressive data
LO3 Employ object-oriented programming in the creation of interactive artworks
LO4 Deploy multimodal forms of HCI to generate compelling interaction data
LO5 Write critically and creatively on contemporary issues in art and technology
LO6 Work collaboratively to build software for individual and group exhibition(s)
LO7 Present functional interactive artworks for individual and group exhibition(s)

Required Texts/Readings

Required Readings

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

- "Cyber-Animism and Augmented Dreams," Tamiko Thiel, 2011
- Computers as Theatre, Brenda Laurel, 1993 (Excerpt)
- Pearly Gates of Cyberspace: A History of Space from Dante to the Internet, Ch. 6 "Cyberspace," Margaret Wertheim, 1999

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.

Other technology requirements / equipment / material

Software (free)

- **Unity** - free for personal use and can be downloaded here: https://unity3d.com/get-unity/download
- **Maya -** Free download for SJSU students here: https://www.autodesk.com/education/free-software/maya.
- **Adobe CC** - Request free download for SJSU students here: http://www.sjsu.edu/ecampus/teaching-tools/adobe/index.html.
- **Text Editor** of your choice (Brackets, Atom, & Sublime are great for different applications and are all free). See here for review: https://www.upwork.com/hiring/development/text-editors-atom-sublime-brackets/
- **Lynda.com** - Access to Lynda is free through the SJSU library portal here (need library card): https://www.lynda.com/portal/patron?org=sjlibrary.org

Hardware & Other Materials

- The use of a 3-button mouse is HIGHLY recommended. There are many Middle and Right Click Operations in Maya & Unity. I recommend a scroll-wheel middle button design.
- If creating a project with Arduino (beyond class demos), students may purchase an Arduino Uno Rev3 availble here for $22 https://store.arduino.cc/usa/arduino-uno-rev3
- Students will need to provide their own materials for individual projects

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.

Research Overview and Proposal
10% of grade

Based on their research and proposal, each student will complete three projects that together form a cohesive body of work. The 3rd and final project is required to be in the class exhibition at the end of the semester. The first project must use AR, but the platforms for the remaining two projects are to be decided by the student. Emphasis will be placed on conceptual strength of the projects over technical execution.

> Assignment details:
Write a ~750 word essay (at least) describing your concept and your relationship to it. This should include:

1. All class writing exercises
2. Documentation of your research, including links to articles/videos/etc.

3. Concept for Project 1 (AR)
4. Plan for further investigation of your topic in Projects 2 and 3, which can be in any form of Digital Media Art

Project 1—Augmented Reality: Mapping concept to space
15% of grade

This will be the first iteration of your project. We will discuss the implications of AR as superimposed virtual space, and work to translate your research and ideas to an immersive AR experience. This does not need to communicate every detail of your research—it is the creative synthesis of your ideas as interactive art.

Project 2—Project Iteration: Rabbit holes and meerkats
15% of grade

Building off of your first project, continue to explore your ideas but through another media platform. We will liken research-based practice to going down a rabbit hole or—better yet—building the complex network of tunnels that meerkats create as a structure for community, care, and exploration. This second project should follow the concept of your first project, but can be video, interactive web/physical environments, VR, 3d models/animation, critical design objects, or any other digital media of your choice.

Final Project—The focused expanse
25% of grade

This is the culmination of your iterative project series. Over the course of the semester, it might feel like you are honing in on a target, or it could be the feeling that you are wandering a great expanse. We will reflect on your personal approach to project iteration and discuss the possibility that opens up in the event of (so-called) failure. You are welcome to create your final project in any digital medium (or combination of), but it is required that you present it at the class show and help in installing/de-installing.

For presentation in the class show:
- Installations may be designed for the gallery space.
- Performances may be scheduled for the opening night.
- Browser-based projects may be presented on laptops.
- Single-channel video can show on a loop in the gallery, or in a separate class screening. Students are also encouraged to submit their videos to air on CreaTV, a nonprofit public access TV station in downtown San Jose

Project Documentation
10% of grade

Students will add documentation of their work to their portfolio website. This will include image documentation of each project, as well as a 1-2 page (min 500 word) artistic research statement that articulates their process of research and iteration.

Artist Talks
10% of grade

Each student will give a 15-minute final presentation that will be an artist talk on the work they have completed in this class. Students will create a slide presentation including visual documentation of their work and research. You should speak about the process that went in to making your work,
including what you researched, how your thoughts around the subject progressed, and how you approached making the work itself from both a technical and conceptual standpoint.

Response Assignments
10% grade
There will be 3 reading responses, 1 response to a museum visit, and 2 technical exercises completed in class over the course of the semester. Completion of these in-class exercises is essential to learning the skills necessary to complete the class projects. Understand these are in-class exercises (you shouldn't have to work on them beyond class-time)

Grading Information

Determination of Grades

Late Policy
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:

- Research Overview: 15%
- Project 1: 15%
- Project 2: 15%
- Final Project: 25%
- Response assignments (3 readings, 2 exercises, and museum visit): 10%
- Documentation: 10%
- Artist Talk: 10%

Extra Credit:

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

Grading Rubric

Each Project will be graded on the following three categories

1. The Work 50%
2. Description & Documentation 25%
3. Tutorials, Readings, Participation in Class Discussions, and Project Review Day 25%

1. The Work

Work will be assessed according to grading criteria rubric described below.

2. Description & Documentation

Must be submitted to Canvas. You will not receive a grade until the following is submitted:

Portfolio-Ready Documentation

- Photograph (.jpg 1200 pixels on the long side)
- Stills/Storyboard (.jpg 1200 pixels on the long side)
- Video (link)

Work list

- Title
- Medium
- Size/Duration

One paragraph description that includes

- Process/Tools
- Inspiration (existing work)

3. Participation in Class Discussions and Project Review Day

- Students must be present on discussion and review days to receive credit, including discussions of artists and readings related to the project.
- Students who are not ready to present on review days must attend class to receive participation credit

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 107: Advanced Projects in 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	Topics | Readings | Viewings	Assignments
				Assignments due at beginning of class unless otherwise noted.
1	1/23	Creativity as expanse: Navigating featureless landscapes	Overview of syllabus Group Agreements	
2	1/28		Creative Expanse Writing/Research Exercises Lecture: Research and iteration in art practice	
	1/30		Creative Expanse Writing/Research Exercises Discussion of Reading 1 Lecture: Promise of virtual realities Blender Demo + in-class exercise	Reading 1 Response Due for "Cyber-Animism and Augmented Dreams," Tamiko Thiel, 2011
3	2/4	1: Augmented Reality: mapping concept to space	*Creative Expanse* *Writing/Research Exercises* *Lecture: AR on the web* Demo of AR in A-Frame	Blender Exercise Due
	2/6		Creative Expanse Writing/Research Exercises AR in A-Frame	A-Frame Exercises due @ end of class
4	2/11		Lark out — Rhonda Holberton will lead a demo of AR in Unity	

	2/13		Creative Expanse Writing/Research Exercises AR in Unity	AR in Unity exercise due @ end of class
5	2/18		Research Presentations Lab	Research Overview Due
	2/20		Body Electric @ YBCA (or show at SJMA)	
6	2/25		Discussion of show Lab	
	2/27		Student Presentations of Project 1	Project 1 (AR) Due
7	3/3	2: Project Iteration: Rabbit holes and meerkats	Lecture/discussion: From Alice in Wonderland and the internet to structures for creative self-care	Project 1 Documentation Due
	3/5		Lecture: Ad/Disadvantages and choosing a platform for development Discussion of reading	Reading 2 Response Due for "Computers as Theatre", Brenda Laurel, 1993 (Excerpt)
8	3/10		Demo / Class exercise: Serial communication between P5.js and Arduino Student presentations of research and project trajectory	Presentations of research and project trajectory due
	3/12		Demo / Class exercise: Serial communication between P5.js and Arduino Student presentations of research and project trajectory	P5 / Arduino Exercise due at end of class
9	3/17		Student presentations of research and project trajectory	
	3/19		Lecture/discussion: What space opens up when we fail? What is the value in iteration?	
10	3/24		Student presentations of project 2	Project 2 Due
	3/26	3: Final Project: The focused expanse	Lecture: Laser beams and focused light Intro to Final Project (Class Show)	Project 2 Documentaion Due
11	3/31	SPRING BREAK		
	4/2			
12	4/7		Lecture: Virtually-mediated bodies	Reading 3 Response Due for "Pearly Gates of Cyberspace: A History of Space from Dante to the Internet", Margaret Wertheim, 1999

	4/9		Lecture/Lab/Demo TBA (depends on final projects) Lecture: Documenting your work	
13	4/14		*Installation practices pt 1: UX* *Space and Time* *One-on-one meetings* *Lab*	
	4/16		Installation practices pt 2: Technical Considerations One-on-one meetings Lab	
14	4/21		Group show date tba	Final Project Due (Installation for class show)
	4/23	Documentation and Professional Practice	Examples of artist portfolios and websites	
15	4/28		Examples of artists talks	Documentation Due
	4/30		*How to write applications and grant proposals*	
16	5/5		Student Artists Talks 1	Artist Talks Due
	5/7		Student Artists Talks 1	
17	5/13		Final Exam: 9:45-12:00	