

NYU Abu Dhabi – Interactive Media
SOFTWARE ART: IMAGE

IM-UH 2115

Fall 2017

COURSE SYLLABUS

Instructor

Pierre Depaz (pierre.depaz@nyu.edu)

Meeting Time

Tuesday – 10:25AM - 1:05PM

Thursday – 11:50AM - 1:05PM

Classroom

C3-153

Office

C3-032

Office Hours

Open-door policy

Credits

2

Class website

<https://github.com/pierredpaz/software-art-image>

This course counts towards the following NYUAD degree requirement:

- Multidisciplinary Minors > Interactive Media
- Majors > Art and Art History

Course Description

Although computers only appeared a few decades ago, automation, repetition and process are concepts that have been floating around artists' minds for almost a century. As machines enabled us to operate on a different scale, they escaped the domain of the purely functional and started to be used, and understood, by artists. The result has been the emergence of code-based art, a relatively new field in the rich tradition of arts history that today acts as an accessible new medium in the practice of visual artists, sculptors, musicians and performers.

Software Art: Image is an introduction to the history, theory and practice of computer-aided artistic endeavours in the field of visual arts. This class will focus on the appearance of computers as a new tool for artists to integrate in their artistic practice, how it shaped a specific aesthetic language and what it reveals about technology and art today. We will be elaborating and discussing concepts and paradigms specific to computing platforms, such as system art, generative art, image processing and motion art. Drawing on those, students will explore their own artistic practice through the exclusive use of their computers. The course will also serve as a technical introduction to the OpenFrameworks programming environment to create works of visual art. As such, Software Art: Image will be an art history and critical studies course with a studio component. This computational playground will highlight and reflect upon the broader impact of digital technologies on our relationship to art and art-making.

Software Art: Image is a complement to Software Art: Text, a 7-week course approaching computation from the perspective of poetry and fiction. The two courses can be taken in series or independently.

Course Objectives

When the course is finished, students will:

- Have developed an understanding of process-based artistic practice.
- Have been introduced to the history and impact of software on visual arts and culture.
- Have developed their own artistic voice through writing software.
- Be accustomed to presenting and discussing software-based artworks.
- Have developed a familiarity creating visual work in C++ and OpenFrameworks.
- Have developed a critical outlook on art and aesthetics in the digital age.

Course Assignments

This course consists of both theoretical discussion and in hands-on assignments. The course assignments will therefore include **readings, writing, presenting** and **coding**.

Reading

Readings will include book chapters, research papers and articles from art history, art philosophy and software studies fields. These readings will introduce the students to the history of computers as a tool to produce artworks, its impact on how we look at art, as well as an overview of the field's main figures.

Participating

Since the class will be focused on critical outlooks on artworks as well as discussion of both their execution and underlying concepts, participation by the students contributes to 15% of the final grade. Participation includes **(a)** expressing one's own perspective on the readings, **(b)** discussing and elaborating your opinion on artworks shown in class, **(c)** offering critical and respectful feedback on classmates' work, **(d)** sharing additional content that can be relevant to the topics discussed in class.

- 15%

Sketching

Students will be encouraged to produce computer artworks by posting weekly sketches on a public blog. These weekly assignments will explore a particular technique, concept, or artist who will have been discussed that week in class. Each sketch or series of sketches will be accompanied by a short write-up explaining the creative process of that exploration.

- 15%

Coding

The main assignments of the class will be two series of work, revolving around two concepts, *Still* and *Motion*. Each student will be required to produce a series of work that demonstrate both **(a)** technical skill, **(b)** aesthetic judgement and **(c)** critical knowledge, which will then be presented and critiqued in class. The final project will follow those guidelines, but will not have a pre-defined prompt.

- 15% + 15% + 20%

Writing

Each of the main assignments will be accompanied by a 500 word statement providing a theoretical context to the production of the work, in order to introduce students to not only art creation but also to art criticism and allow them to not only produce, but communicate. These statements will have to touch on **(a)** the conceptual background for the work, **(b)** the reasons for its formal qualities as well as **(c)** the evolution of the work over time.

- 5% + 5% + 10%

Submitting Assignments

Each assignment should be submitted by **(1)** posting the output on the student's website, and by **(2a)** sending the direct link to that posting to the instructor as an email, along with **(2b)** a .zip file of the files.

Grade breakdown

Participating	15%
Sketching	15%
Coding - Still	20%
Coding - Motion	20%
Coding - Final	30%
Total	100%

Grade calculation

Students will be given grades based on a 100 point scale. Each assignment will be graded on a point scale, and these points will be added up to determine the final grade, according to the following:

94 - 100 A
90 - 93 A-
86 - 89 B+
83 - 85 B
80 - 82 B-
76 - 79 C+
etc.

Readings

All readings will be available as PDFs on the class website (<https://github.com/pierredopez/software-art-image/wiki/schedule>).

The required **theoretical** reading is *Interaction of Color*, by Josef Albers, Yale University Press, 2013.

The required **practical** reading is *ofBook*, by Zach Lieberman et. al., <https://github.com/openframeworks/ofBook/>

Attendance

Attendance and arriving on time to all class sessions is required and expected, too many unexcused absences will lower your final grade. **Two unexcused absences lower your final grade by a letter.** Each subsequent unexcused absence will lower another letter grade. Two tardies will count as one absence. Arriving more than 15 minutes late will also count as an absence. If you will be missing a class due to illness, or unavoidable personal circumstances, you must notify your professor in advance via email for the absence to be eligible to be excused.

Laptop Use

As it turns out, digital media are more and more designed to take our attention away from our current actions. As such, laptops, tablets and smartphones are not allowed during lectures. In order to avoid wasteful printing of materials, students are encouraged to take notes and write down questions as preparation for class discussions.

Academic Integrity

As set forth in NYU Abu Dhabi's Academic Integrity Policy, the relationship between students and faculty at NYU Abu Dhabi is defined by a shared commitment to academic excellence and is grounded in an expectation of fairness, honesty, and respect, which are essential to maintaining the integrity of the community. Every student who enrolls and everyone who accepts an appointment as a member of the faculty or staff at NYU Abu Dhabi agrees to abide by the expectation of academic honesty.

The full policies and procedures relating to Academic Integrity may be found on [the NYUAD Student Portal](#).

If you're going to copy/paste some code, please include the author/StackOverflow link as a comment.

Schedule

1 - ART AND SOFTWARE

Readings

- *What is Computer Art?*, H. Kawano, self-published, 1975.
- *A Tool is a Tool*, P. Z, in *Women, Art and Technology*, MIT Press, 2003.
- *Computers and the Visual Arts*, A. M. Noll. *Design Quarterly* No. 66/67, 1967.

Artists

- Hiroshi Kawano
- The Algorists
- A. Michael Noll
- G.R.A.V.

Lab - 09/05

- Housekeeping
- Introduction to OpenFrameworks
- First sketches

Lecture - 09/07

- Early computer art 1950-70
- Bell Labs
- Early exhibitions
- Stuttgart school

Homework

- Set up your class blog. Post the first screenshots of your sketches on it.
- Find one image of what you consider computer art. Post it on your blog and explain why you chose that particular piece.

2 - COLOR / SHAPE

Readings

- *Interaction of Color*, Josef Albers, Yale University Press, 2013, Part I-V.
- *Point*, in *Point and Line over Plane*, Wassily Kandinsky, Bauhaus, 1926.
- *Solo for a Black Stroke*, Vera Molnar, self-published, 2001.
- *The Propaganda of Pantone: Color and Subcultural Sublimation*, Kevin Lo, 2016.

Artists

- Kandinsky
- Rafael Rozeendaal
- James Turrell
- Alva Noto
- Norman McLaren

Lab - 09/12

- The Bauhaus
- Abstract and Expressionist Art
- Digital Color

Lecture - 09/14

- Printing code
- Randomness in computing
- Noise

Homework

- Find and modify the color and shape of a pre-existing image that you've found.
- Write and explore a generative algorithm.

3 - UNCERTAINTY / RULES

STILL DUE

Readings

- *10 PRINT*, Casey Reas et. al., MIT Press, 2012, chapter *Random*.
- *Generator: The Value of Software Art*, G. Cox
- *Art, Emergence and the Computational Sublime*, Jon McCormack et. al., Proceedings of the Second International Conference on Generative Systems in the Electronic Arts, 2001.

Artists

- John Cage
- Nam June Paik
- Casey Reas
- Marius Watz

Lab - 09/19

- Critique
- Kinetic Art
- Early computer films

Lecture - 09/16

- Randomness and Uncertainty
- Fate and Chance

Homework

- Write an animated sketch, where time is a crucial component of the aesthetic experience.

4 - MOTION

Readings

- *Digital Harmony of Sound and Light*, Ben Alves, Computer Music Journal, 2005.
- *Experimental Animation: The Joy of Movement*, Josef Engel, Unpublished typescript, n.d.
- *Oscillons: Electronic Abstractions*, Ben Laposky, Leonardo, Vol 2., 1969.
- *Audiovisual software art: a partial history*, Golan Levin, self-published, 2009.

Artists

- John Whitney
- Zimoun
- Zach Lieberman
- Nam June Paik
- Norman McLaren
- Larry Cuba

Lab - 09/26

- Experimental Animation
- Transmutability of data
- Visual Music

Lecture - 09/28

- History of computer animation
- Work session

Homework

- Make a 600x600px white canvas in which the source code is its crucial aesthetic component.

5 - CONCEPT

MOTION DUE

Readings

- *Sentences on Conceptual Art*, Sol LeWitt in 0-9, 1969.
- *Art In The Information Age*, Edward Shanken, Leonardo, Vol. 55, No. 4, 2002.
- *Against Information: Case Studies in Data Practice*, Mitchell Whitelaw, The Fiber Culture Journal, 2008.

Artists

- Sol LeWitt
- Malevich
- Bruce Nauman
- Ed Ruscha
- Brian Hause
- Jer Thorp

Lab - 10/03

- Conceptual Art
- Data Art

Lecture - 10/05

- Critique session

Homework

- Find a digital file and break it using a hex editor.

6 - GLITCH

Readings

- *The Perception of Glitch*, R. Menkman, Network Notebooks 4, Glitch Studies Manifesto
- *Aesthetics of the mirror: media art, the machine, the unforeseen and the event*, Tim Barker, *Error: Glitch, noise and jam in media culture*, 2011.
- *Noise: The Political Economy of Music*, J. Attali, Introduction

Artists

- Rosa Menkman
- Yasunao Tone
- Philip Stearns
- jodi.org

Lab - 10/10

- Glitch
- Exploit
- Imperfection
- Politics of noise

Lecture - 10/12

- Work session on final piece

Homework

- Work on final piece

7 - FURTHER

FINAL DUE

Readings

- *The Softer Side of Art*, Maciej Wisniewski, Network Art: Practices and Positions, 2006.
- *Ten Theses on Software Art*, Florian Cramer, self-published, 2003.
- *On Software, and the persistence of visual knowledge*, Wendy Hui Kyong Chun, Grey Room, 2008.

Lab - 10/17

- Art and media studies
- Essence of code
- Code vs. Interface

Artists

- jodi.org
- art/port on whitney.org
- auto-illustrator
- constant dullart

Lecture - 10/19

- Final critique

Homework

- Fall Break Due

BREAK;
