"The process of preparing programs for a digital computer is especially attractive, not only because it can be economically and scientifically rewarding, but also because it can be an aesthetic experience much like composing poetry or music."

– Donald Knuth

"This may sound paradoxical, but the machine, which is thought to be cold and inhuman, can help to realize what is most subjective, unattainable, and profound in a human being."

– Vera Molnar

CREATIVE PROGRAMMING 1

DETAILS

Instructor	Prof. Jeff Thompson
Email	jeff.thompson@stevens.edu
Office/hours	TBD (see Github page)

Meeting times	Weekly Zoom critiques at 11am EST
Drop-in hours	Tuesdays 9–11am
Course materials	www.github.com/jeffThompson/CreativeProgramming1

COURSE DESCRIPTION

In this class, we will explore the computer as a tool capable of powerful creative possibility, not via pre-built software, but instead by writing code ourselves. We will look at the basic structures and affordances of code as inspiration for making artworks, as a tool capable of creating things that would be impossible by hand, and as a fallible system that encapsulates our cultural and personal biases.

During the course of the semester, you'll learn how to write code for a variety of visual projects, including image, text, and interaction. We'll primarily be using p5.js, an offshoot of Processing originally developed by Lauren McCarthy. p5.js is a toolkit created specifically for artists and designers build on the Javascript programming language and features a really easy-to-use online code editor.

Along the way, we'll also look at historical and contemporary figures in the arts and computer science who have shaped how we use computers as creative tools, and we'll explore code from a critical, humanistic perspective.

FORMAT/ATTENDANCE

Of course, this semester is quite unusual! While normally we'd be hanging out in a classroom together, this semester our class will be all online. We lose some things in that process but we also gain some; to me, an online class means you can learn at your own pace and on your schedule, review materials as much as you like, make projects that can be shared online, and we can find creative ways to make and discuss art together.

Our main format will be:

- Weekly examples, available as code you can run online as well as video tutorials in a YouTube playlist
- Weekly homework projects that you'll work on independently and turn in on Canvas
- Regular group critiques of projects on Zoom at 11am EST – attendance taken!
- Drop-in hours during class and office hours; this is so you can ask more detailed questions, get help with your homework, etc

Where to find everything:

- Canvas: a good starting point to find assignments, links to video tutorials, and where you'll turn in homework
- Github: all course materials including detailed assignments, code examples, images, etc

Because of this format and the technical nature of this class, it's really important that you stay on top of your coursework.

Don't hesitate to reach out if you have any questions at all! Better to ask a question than be unsure of something. I also really (truly!) want to hear from you all on what is working and what's not in the online format. I can't know what it's like to be on your end of things unless you tell me, so please do!

Watching video tutorials, looking at code examples, and doing your homework will be on your own schedule but attendance at critiques is mandatory and attendance will be taken. You are allowed two absences per semester to use at your discretion – each additional absence will result in your final grade being lowered by ½-letter. Late arrivals will be marked tardy, with 3 tardies equaling one absence. The only exception is severe illness – if this is the case, please let me know as soon as possible and we can work something out.

HOMEWORK

Homework in this class is meant to be exploratory, a way to expand on the experiences and ideas in class. I encourage wide-ranging interpretation of assignments: consider ways that you can fulfill the requirements in a way that is creatively and intellectually exciting for you, not just the obvious requirements. Of course, this is much harder than just reading a chapter or studying for a quiz! I expect considerable engagement from you this semester, and you should expect the material to be rigorous and thorough.

All assignments are due by the start of class – details of projects will be available on the class GitHub page (see link on the first page) including how to turn your work in.

GRADING

The goal of all assignments is for you to think and make. Everyone comes from a different background and experience, so the goal is improvement – I want to see curiosity, engagement, and willingness to experiment. A grading rubric will be provided with each assignment to help you understand what is expected and how you did.

To get a C (an average grade) you should:

- Put time into your projects each week
- Complete everything on time
- Participate in critiques and discussions

For a B or an A, you should additionally:

- Take risks and try things enthusiastically
- Be an active and unsolicited participant in critiques and discussions
- Take assignments beyond their minimum requirements

Final grades will be determined as follows:

- Homework 60%
- Class participation 25%
- Final project 15%

LEARNING ACCOMMODATIONS

The goal of this class is for everyone to succeed. Stevens and the VA&T program are dedicated to providing appropriate accommodations to students with documented disabilities. The Office of Disability Services (ODS) works with undergraduate and graduate students with learning disabilities, attention deficit-hyperactivity disorders, physical disabilities, sensory impairments, psychiatric disorders, and other such disabilities in order to help students achieve their academic and personal potential. They facilitate equal access to the educational programs and opportunities offered at Stevens and coordinate reasonable accommodations for eligible students. These services are designed to encourage independence and self-advocacy with support from the ODS staff. The ODS staff will facilitate the provision of accommodations on a case-by-case basis.

If you have any questions about learning accommodations, please don't hesitate to talk with me during or outside of class.

PRONOUNS

As this course includes lots of interaction between students, it's important for us to create an environment of inclusion and mutual respect. This includes the ability for all students to have their chosen gender pronouns and chosen name affirmed. If the class roster does not align with your name and/or pronouns, please inform me of the necessary changes. You can also change your display name in Zoom, if you prefer a name different than the one listed on the class roster.

INCLUSION STATEMENT

Stevens and the VA&T program believe that diversity and inclusiveness are essential to excellence in academic discourse and creativity. In this class, the perspective of people of all races, ethnicities, gender expressions and gender identities, religions, sexual orientations, disabilities, socioeconomic backgrounds, and nationalities will be respected and viewed as a resource and benefit throughout the semester. Suggestions to further diversify class materials and assignments are encouraged. If any course meetings conflict with your religious events, please do not hesitate to reach out to me to make alternative arrangements.

REQUIRED MATERIALS

Required and suggested readings will be provided as PDFs on GitHub – there is no required textbook.

- Laptop and charger, capable of running our code examples and with reliable internet connection
- A notebook or sketchbook for taking notes and drawing ideas
- Some kind of writing implement – an assortment of various pens and pencils may be helpful for working on project ideas

COURSE CALENDAR

Please see the course Github page for the most up-to-date version of the course calendar. Please also note this is subject to change – check Canvas, Github, and your email regularly.