

“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	<a href="mailto:jeff.thompson@stevens.edu">jeff.thompson@stevens.edu</a>
Student hours	Tuesdays 10am–noon, Morton 208
Time/location	Mondays 9am–12.50pm, Morton 201
Course materials	<a href="https://www.github.com/jeffThompson/CreativeProgramming1">www.github.com/jeffThompson/ CreativeProgramming1</a>

## 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 (which turns twenty years old this year!) that was 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

This semester we're finally back together in person! Our class time will be spent together critiquing your homework projects, covering technical material, introducing new assignments, looking at examples, group ideation and feedback exercises, and work time.

Because we will cover a lot of material this semester and because this course will be both rigorous and thorough, 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.

Attendance will be taken at the start of class every week. 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.