

“The limits of my language mean the limits of my world.”

– Ludwig Wittgenstein

“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

CREATIVE PROGRAMMING 1

DETAILS

Instructor	Prof. Jeff Thompson
Email	jeff.thompson@stevens.edu
Office/hours	Morton 208, Tuesdays 2–4pm
Meeting times	Tuesdays 9.00am–12.50pm
Location	Visual Arts & Technology Lab
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 the Processing platform, a toolkit created specifically for artists and designers built on the language Java.

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.

ATTENDANCE

Due to the condensed, technical, and collaborative nature of this class, attendance is mandatory. 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 provide a doctor's note documenting your illness.

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.

You will have 24/7 access to the Lab and Studio, and use of the Fab Lab during open hours for printing and equipment checkout.

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.

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 Processing/Java and with reliable internet connection – *bring every week!*
- A notebook or sketchbook for taking notes and drawing ideas – *bring every week!*
- Some kind of writing implement – an assortment of various pens and pencils may be helpful for working on project ideas
- Laser and inkjet printing for several projects. Cost will vary depending on size, but you should budget about \$50 this semester in printing costs.
- Other art supplies (paper, etc) and printing as needed

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 GitHub and your email regularly.