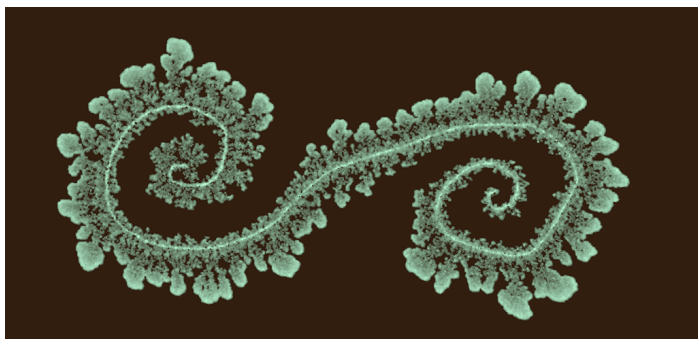


451 lines (281 loc) · 46.3 KB

Creative Coding Syllabus (60-212, Fall 2025)



This document covers policies and procedures for the Fall 2025 edition of "Intermediate Studio: Creative Coding (60-212)". This document does not include information about weekly topics, specific assignments, viewings or readings; that information can be found elsewhere in this repository. A PDF version of this document can be found [here](#).

- Title: *Intermediate Studio: Creative Coding (60-212), Fall 2025*
- Time and Location: Mon/Wed, 2:00-4:50pm in CFA-318
- Departments: Carnegie Mellon University [School of Art](#) and [IDeATe Program](#)
- Course OpenProcessing site: <https://openprocessing.org/class/100952>
- Professor: [Golan Levin](#), golan@andrew
- Assistant: [Lorie Chen](#), ylchen@andrew

For Zoom links, Discord channel links, and the Professor's emergency contact information, please see the #key-information channel in our course Discord server.

Contents

- [TL;DR](#)
- [Overview](#)
- [Administration](#)
- [Attendance Policies](#)
- [Grading and Evaluation Policies](#)
- [Academic Integrity](#)
- [Accommodations](#)
- [Code of Conduct](#)
- [Classroom Hygiene](#)
- [Take Care of Yourself](#)

TL;DR

Your grade in this course is straightforwardly calculated based on your professionalism in completing work and attending class, subject to the policies summarized below:



Ghost 3+ sessions or
Forgo 3+ assignments:
Fail the course 🦴

Ghost 2 sessions or
Forgo 2 assignments:
Lose a letter grade 😞

Ghost one session or
Forgo one assignment:
No impact whatsoever 🤖

Summary of Assignment Policy:

- 🤖 Forgo 1 set of assignments: no impact on your grade whatsoever.
- 😞 Forgo 2 sets of assignments: lose a letter grade.
- 🦴 Forgo 3+ sets of assignments: fail the class.

There will be 10 sets of assignments this semester. Each set of assignments has a clearly defined checklist of subtasks, whose purpose is to help you develop discipline in creating and documenting your work. Your grade is based on your fulfillment of these checklists. A set of assignments is "forgone" if it is more than one week late, or if it is less than 15% completed.

Summary of Attendance Policy:

- 🤖 Ghost 1 session: no impact whatsoever.
- 😞 Ghost 2 sessions: lose a letter grade.
- 🦴 Ghost 3+ sessions: fail the class.

Attendance is important, but if you need to miss class — which can happen, within reason — you are expected to be responsible about **communicating** with me about your attendance. Here, "*ghosting*" refers specifically to "No-call, No-show" attendance events — not excused absences. That said, this flexibility should not be abused; additional policies (see below) may take effect if you incur more than 3 excused absences.

Overview

Course Description

Intermediate Studio: Creative Coding (60-212) is a practical introduction to the use of programming and computation within the context of the arts. In this intermediate level course, students develop or deepen the skills and confidence to produce interactive, generative, and computational artworks; discuss their work in relation to current and historic praxes of computer art; and engage new technologies critically.

This is a “studio art course in computer science”, in which our objective is art and design, but our medium is student-written software. Intended as a second course for arts students who have already had one semester of elementary programming (in any language), this class develops craft skills in arts-engineering using a variety of creative coding toolkits, especially including [p5.js](#) (JavaScript), [ComfyUI](#) and [TouchDesigner](#). Through rigorous programming exercises in these environments, students will develop mastery over the basic vocabulary of constructs that govern static, dynamic, and interactive form, with the aim of applying these skills to problems in interactive art, computational design, and other creative explorations of transmediality, connectivity, generativity, and immersivity.

This fall, there are 10 primary assignment sets:

1. Getting Started (due 8/27)
2. Form and Shape (due 9/03)
3. Looping Movement (due 9/10)
4. Timekeeping (due 9/17)
5. Pattern and Pixel Logics (due 9/29)
6. LLM Interaction (due 10/08)
7. Gesture and Augmented Body (due 10/27)
8. Telematic System (due 11/05)
9. Code and Diffusion AI (due 11/17)
10. Final Project (due 12/08-12, TBA)

Mon 08/25	Wed 08/27
	Hello 1
Mon 09/01 Optional Session (Labor Day)	Wed 09/03
	Form, Shape 2
Mon 09/08	Wed 09/10
	Loop/Gait 3
Mon 09/15	Wed 09/17
	Clock 4
Mon 09/22	Wed 09/24
Mon 09/29	Wed 10/01
Pixel Logics 5	
Mon 10/06	Wed 10/08
	LLM 6
Mon 10/13 No Session (Fall Break)	Wed 10/15 No Session (Fall Break)

Mon 10/20	Wed 10/22
Mon 10/27	Wed 10/29
Body/Gesture 7	
Mon 11/03	Wed 11/05
	Telematic 8
Mon 11/10	Wed 11/12
Mon 11/17	Wed 11/19
Diffusion 9	
Mon 11/24	Wed 11/26 No Session (Thanksgiving)
Mon 12/01	Wed 12/03
12/8-12 (TBA) Final Project 10	

Prerequisites

What prior knowledge must students have in order to be successful in this course?

- 60-212 is a *doubly-intermediate* course: intended for students who have already had at least one semester of arts foundations, and who have also already had at least one semester of introductory computer programming (in any language).
- Students must be familiar and comfortable with computer programming fundamentals, such as iteration, conditional testing, functional abstraction, static and dynamic memory structures (e.g. arrays), and object-oriented programming, as taught in a course like AP Computer Science, or (at CMU) 15-104, 15-110, or 15-112.
- General computing skills (such as browser use, file management, and word processing) are essential. Students are also expected to have some familiarity with software workflows for editing and distributing images and video.
- A strong foundation in mathematics, especially including geometry, algebra, and trigonometry, will also be very helpful.
- This course is taught primarily with JavaScript. Students who are primarily familiar with Python will benefit from doing some additional preparation, such as viewing p5.js videos on the [Coding Train YouTube Channel](#).

Learning Objectives and Course Goals

At the conclusion of this course, students will be able to:

- Demonstrate proficiency in creating art by programming a computer.
- Demonstrate familiarity with a repertoire of artists, designers, works and activities around creative coding, interactive art, generative form, and computational design.
- Understand the role of computation in artworks that explore concepts of transmediality, generativity, connectivity, and immersivity.
- Understand how to document and present artworks created using code.

Course Relevance

This course is relevant to students who are interested in:

- Exploring the use of computation in creating new culture and expanding their expressive vocabulary
- Developing expertise in the aesthetic nuances and conceptual landscape of interactivity
- Designing procedural form and generative art for games, virtual environments, and other modes of creative expression
- Understanding the practical and social assumptions that underpin code in culture

Assessment Structure

How will students be assessed: assignments, exams, final, presentation, project, etc.?

- **10 Assignments.** There will be ten sets of Deliverables this semester, assigned at approximately weekly intervals. Each set will have several sub-components, including multiple warmup exercises and a main project, that may have different intermediate deadlines.
- **Complete the checklists.** For each set of deliverables, an objective checklist of subtasks will be provided, with clearly defined assessment criteria. To ensure transparency, fairness and consistency, grades in this course are straightforwardly calculated according to students' fulfillment of these checklists and criteria. Many items on these checklists are intentionally easy to fulfill; pay attention to them.
- **Qualitative evaluations are decoupled from grades.** In addition to grades that reflect the fulfillment of straightforward checklists, students will also receive qualitative and subjective feedback from a variety of people, including the professor, other CMU faculty, outside professionals, and/or their peers. This critical feedback on the content and quality of your projects does not factor into your grade.

This semester, you can expect to receive the following feedback, at a minimum:

- You will receive a numeric grade for each component of each weekly set of deliverables, as well as a brief written evaluation about one or more of your weekly projects.
- At Fall Break, you will receive a mid-semester grade, as well as a brief written evaluation about your overall performance.

- At the end of the semester you will receive a final grade, and a written evaluation.

Extra Time Commitments

Are there extra time commitments required outside of the regularly scheduled course meeting times?

- I anticipate that students will spend approximately 6-8 hours per week outside of class working on their projects. In the past, some students have reported that this course consumes as much as 15 hours per week.
- There will be a small number of special events outside of class meeting times (such as public artist lectures), for which attendance is *strongly recommended*.
- Students may also wish to attend optional and occasional group work sessions.

Administration

Credits Allocated

60-212 provides 12 units of academic credit, and satisfies a software skills requirement for students pursuing IDEaTe minors and concentrations.

Required Course Materials

- **Laptop.** Students should have access to a personal laptop with a webcam and a reliable internet connection. Recent, well-updated installations of Mac OSX, Windows and Linux are all acceptable operating systems. However, although all of the programming toolkits with which we work are free and cross-platform, it is possible that example projects may only be provided for Mac OSX.
- **Programming Environments.** The primary programming environment used for example projects and sample code will be [p5.js](#) (JavaScript, optionally programmed within [Visual Studio Code](#) with the [p5.vscode](#) extension). However, we are also likely to encounter [TouchDesigner](#), [ComfyUI](#), and potentially [Processing](#) (Java) or Python.
- **Sketchbook.** It is extremely wise to plan your projects on paper before writing any code, and some assignments will require you to post images of your project sketches. In support of this, you are strongly advised to maintain a sketchbook for this course, ideally on paper.
- **Smartphone Camera.** Students should have access to a smartphone with a camera to document certain projects.
- **3-Button Mouse.** You will need a 3-button mouse for certain software. I recommend the [Logitech M100 wired mouse](#) (USB-A, \$9) or the [Lenovo 400 wired mouse](#) (USB-C, \$10). Wireless 3-button mice are also acceptable. Please obtain this mouse before the end of September.

Additional Expenses

- You will find it very beneficial to have a paid account for an LLM-based generative AI system, such as [ChatGPT Plus](#) (\$20/month), [Anthropic Claude.ai Pro](#) (\$20/month), or [GitHub CoPilot Individual](#) (\$10/month).
- I'm currently working to make sure this is free to you (TBA), but it may become necessary to create a prepaid "Hobby" account at [RunComfy.com](#). I estimate that a one-time balance of \$20 should be adequate for most of the work that we need to do.

Communication Tools

This course uses the following software systems to share information:

- **Discord** — our primary communication channel. Submit your work and ask for help.
- **Email.** The Professor will broadcast summary emails once per week. Please read them.
- **Github**, where lectures, assignments and resources will be posted.
- **Zoom**, for remote meetings, *in the unlikely event that circumstances require it*.

Attendance Policies

This section articulates policies on:

- **Excused absences** (about which you have communicated responsibly)
- **Ghosting** ("No-Call, No-Show" absences)
- **Partial attendance** (tardiness, mental absence)
- **Malingering** on critique days (avoidant behavior)
- **Health-Related Absences**
- **Classroom Streams/Recordings**

Excused Absences

An *excused* absence is one about which you have communicated with me in a timely, professional, and responsible manner.

- **Communication is paramount.** Attendance is important, but if you're running late or need to miss class — which can happen, within reason — you are expected to be responsible about communicating with me. If you're ill, or if you know you will have a planned absence, please let me know by Discord or email before the beginning of that class session. I can be very understanding and accommodating about planned and necessary absences, family circumstances, and/or medical issues when you inform me in a timely and professional manner.
- **This policy on excused absences shall not be abused.** Even if your absences are "excused", special arrangements will become necessary if you need to miss more than a few sessions. Not every circumstance can be accommodated, not all excuses are equal, and some class sessions (e.g. critiques) are more important than others. I reserve the right to lower your grade if you miss four or more sessions, in whole or in part, without such a special accommodation in place. If you have chronic medical issues that are likely to impact your attendance, please speak to the [Office of Disability Resources](#) as soon as possible and then make an appointment with me to discuss any accommodation requests.
- **Missed information is your problem.** The professor or TA *may* be able to help, but *you* are ultimately responsible for any information you have missed as a result of absence. Per CMU policy, "faculty are not obligated to re-teach material due to a student missing class." Organize with your classmates to get class information and material that you have missed.

Ghosting (No-Call, No-Show Absences)

If I, the professor, am unable to come to class, I will send a message so that you can plan accordingly. I respectfully ask exactly the same courtesy of you.

Failing to communicate responsibly about your absences — in other words, *ghosting*, or "No-Call, No-Show" events — is problematic and disrespectful to the classroom community, and is not acceptable in this course. Allowing the grace of one emergency for everyone, the following policy applies (*except as otherwise officially accommodated under University policy*):

- Ghost 1 session: no impact on your grade.
- Ghost 2 sessions: lose a letter grade (A→B).
- Ghost 3 or more sessions: fail the class (B→R).

Short of a truly incapacitating emergency, there are very few situations in which a person is *literally unable* to send a brief message. Students are responsible for notifying the professor as soon as possible, even in a justified *No-Call, No-Show* situation — i.e. a "delayed notice of absence". Depending on the severity of the situation, a *post-hoc* excuse for an unexcused absence may or may not be accepted, at the professor's discretion.

Students are responsible for notifying the professor as soon as possible, even in a justified *No-Call, No-Show* situation — i.e. a "delayed notice of absence". Depending on the severity of the situation, the notice period should not exceed three days from the day of absence. Such a *post-hoc* excuse for an unexcused absence may or may not be accepted, at the professor's discretion.

Partial Attendance

Focus is precious, and our class time is limited. Physical presence means nothing if you're "checked out"; your mental presence is extremely important. *Partial absence* includes situations like tardiness, sleeping in class, moonlighting, or other forms of mental absence (i.e. distracted participation). Three incidents of unexcused partial absence may cause you to lose a letter grade (A→B).

- **Tardiness** is a form of partial absence in which you are more than 15 minutes late to a class session. Tardiness may be excused or unexcused. Note that I typically begin to lecture (or commence other important class activities) no more than 5 minutes after the official start time. Your first incident of unexcused tardiness will receive a warning, but further instances may impact your grade.
- **Sleeping in class** is considered partial attendance. If you are sleeping in class I will wake you up. Your first incident of sleeping in class will receive a warning, but further instances may impact your grade. If you are not getting enough sleep please address this issue either with a doctor or with an academic advisor in order to better balance your days and nights.
- **Working on homework for another class**, during class time (i.e. *moonlighting*) is considered partial attendance. Moonlighting is particularly harmful to class morale because it signals a willful disengagement and lack of respect, both for your peers and the course content. When you disengage from the collective learning experience, it diminishes the collaborative energy and focus of the group. This behavior can create a ripple effect, distracting others and lowering the overall quality of the class.
- **Stepping out briefly is OK.** I don't require notification if you just need to step out for a few minutes in the middle of class (e.g. to use the restroom, collect yourself, take an urgent call, etc.). If I'm in the middle of lecturing, please don't interrupt me; just excuse yourself. Stepping out for a moment is not considered partial absence.

Malingering On Critique Days

Sometimes, students who haven't completed their projects choose to avoid class on critique days, because they are too embarrassed to come to class empty-handed. *Please have courage.* Your participation on critique days is essential, even if your own project is incomplete or missing, because these sessions and conversations help you understand the nature of the work. If you are empty-handed, just say so; it happens. Even if you are without a project, you are still expected to help your peers by contributing productively to the class discussion.

Health-Related Absences

Please refrain from attending class if you feel even slightly unwell. You are emphatically encouraged to seek appropriate medical attention for treatment of illness, and notify me by email/Discord about your absence as soon as practical, so that accommodations can be made. I don't need or want to know intimate details about your medical issues; it's sufficient to let me know that you're unwell.

Classroom Streams/Recordings

You are welcome to ask, but *I am unable to offer guarantees* about my ability to offer lectures recordings, live-streams, or Zoom connections to absent students, especially on short notice.

Grading and Evaluation Policies

In this course, your effort is evaluated according to three different systems, which are decoupled to the greatest extent possible:

- **Grades** (standards used by CMU on its transcripts)
- **Evaluations** (standards used by our class community in critiques)
- **Expectations of Professionalism** (additional standards used by Golan)

Grades

Grades are standards used by CMU on its transcripts, to indicate your objective level of effort in a course. The following policy concerns "foregone" assignments, i.e. weekly problem sets which you have skipped altogether, or on which you have completed less than 15% by their due date:

- Forgo 1 weekly assignment: no impact on your grade whatsoever.
- Forgo 2 weekly assignments: lose a letter grade (A→B).
- Forgo 3+ weekly assignments: fail the class (B→R).

Your grades in 60-212 will be based on your self-evident **fulfillment** of simple checklists. Projects will always have a checklist of *supporting requirements*. These are often very straightforward to fulfill, but if you fail to meet these, you will have points deducted. Practically every project assignment will ask you to check off subtasks such as (for example):

- **Create** a unique Discord post for your project.
- **Title** and **Tag** your project in a specified manner.
- **Upload** a photo of your notebook sketches for the project, if applicable.
- **Upload** a static image of your project, such as a screenshot or photograph.
- **Upload** dynamic documentation of your project (such as an animated GIF, video recording, or interactive applet) into the blog post, if applicable.
- **Write** 100-150 words about your project, describing its development process. In your writing, include some critical reflection and analysis of your project: What were your goals? In what ways did you succeed? And in what ways did you fall short?
- **Link** to your project or code, if requested.
- As per our syllabus policies on Academic Integrity, you must also:
 - **Name** any other students (or generative AI systems) from whom you received advice or help, and describe the help you received. If you had collaborators, explain how the work was distributed among the collaborators.
 - **Cite** and link to the sources for any code, external libraries, or other media (e.g. photographs, soundtracks, source images) which you used in your Project. Citing your sources is extremely important. Err on the side of generosity.

Note that the objective, easy-to-verify nature of these checklists means that some of your grading may be performed by our Teaching Assistant.

Evaluations

Evaluations are standards used by our class community in critiques, to provide subjective feedback about your creative work. These are *opinions*.

This section discusses how your work will be Evaluated. Evaluations reflect professional assessments of your work—as provided by me, our Teaching Assistant, external guest critics, and/or your peers. Evaluations articulate someone's personal *opinion* about whether your creative effort is *good*, *interesting*, *noteworthy*, etc. As such, Evaluations do not figure into your grade.

The purpose of our open-ended projects is to provide well-circumscribed opportunities for you to make creative work. Generally the prompts will invite you to explore a specific topic or set of tools, but, unless stated otherwise, there is no correct solution, and no specific requirement for how you should implement your idea. My assignments will not only ask for a creative solution, but also for some creativity in how you define and approach the problem. It is expected that your Projects will be presented and documented in the appropriate channels of our class Discord.

The quality of your creative projects may be unrelated to how much time you spent making it. You may sometimes observe a very quickly-executed solution which succeeds because of its strong concept. Usually, however, the quality of a project is rewarded by extra attention to its craft.

In our critiques, we will evaluate your open-ended projects according to the following subjective considerations:

- **Curiosity:** Are you asking questions as you work?
- **Tenacity:** Are you forging through difficult problems without giving up?
- **Execution:** Are you crafting with purpose, precision, and attention?
- **Inventiveness:** Are you discovering/exploring methods outside the obvious and predictable?

Your work may also be critiqued based on [these subjective considerations from Allison Parrish](#):

- An assignment is **Compliant** if it meets the brief.
- An assignment is **Gregarious** if it makes connections between course content and the rest of the world; e.g. your own interests as an artist, designer, technologist, etc. and/or other fields of research and practice.

- An assignment is **Stubborn** if it provides evidence that its maker was opinionated about what they wanted to accomplish and did not let small setbacks (whether conceptual or technical) deter them this end.

I will provide Evaluations to you by email or private message. They may be quite brief. Evaluations may be given along different scales, or no scales at all, according to the project. Other times, evaluation feedback may take the form of scores of S,A,B,C,D, or F, as described below. Note that it is possible for you to receive full *credit* for an assignment (i.e. you ticked off all the items on the checklist), while still receiving an Evaluation of B or C.

- **S** (Exceptional): You made something truly outstanding
- **A** (Excellent): You made something very good
- **B** (Good): You made something satisfactory, that fulfills all requirements
- **C** (Needs Improvement): You tried to make something
- **D** (Unacceptable): The work does not fulfill any requirements completely
- **F** (No Credit): You did not even try, and made no arrangements to address this

In addition to Evaluations for your individual projects, I will also provide a brief written mid-semester Evaluation of your work.

Expectations of Professionalism

My Opinion of Your Work is Not Your Grade; Your Grade is Not My Opinion of Your Work. Earning good grades is roughly correlated with, but not the same thing as, being a good learner.

Because your grade reflects your fulfilment of basic checklists, it follows that I regularly give "A" grades to work that is meets checklist criteria, but which I don't happen to think is particularly good or interesting.

I am just one person, and despite my years of experience in this field, my particular taste is ultimately irrelevant. I have been known to dismiss student projects that later proved to be highly influential and significant. I have sometimes brought in outside critics whose opinions I deeply respect, who surprise me with radically different (but equally valid) opinions about student projects. And I have even been known to change my own mind about student projects quickly, and often.

That said, there are a few aspects of your professional conduct that set you up to actually learn stuff. These things may seem simple and obvious, but it's sometimes surprising how few students seem to get these right:

- **Be good.** Have a positive attitude.
- **Be present.** Show up to all of the course sessions, on time.
- **Be diligent.** Submit your work punctually, and with clear documentation.
- **Be responsible.** Communicate with me if you have a problem, and clean up after yourself.
- **Be helpful.** Help your classmates when they're stuck. Contribute to discussions.
- **Be generous.** Make helpful contributions to discussions.
- **Be fearless.** Work outside your comfort zone. Give yourself permission to weird.
- **Be conscientious.** Pay attention to details of craft and execution. Put your heart in the work.
- **Be persevering.** Become resourceful about getting the assistance you need.
- **Be curious.** If you don't understand something, start with curiosity rather than judgment.
- **Be tenacious:** Are you forging through difficult problems without giving up?
- **Be rigorous:** Are you crafting with purpose, precision, and attention?
- **Be brave:** Are you exploring methods outside the obvious and predictable?
- **Be respectful** of our social space. Make space for others.
- **Ask for help.** If you don't know how/where/what, ask for help.

Whether or not you adhere to these recommendations will not affect your grade. But when students do follow these recommendations, they *learn* a lot more. Students who do these things are *also* more likely to make a good impression. This means that I am more likely to do things like:

- ...admit them into a future course from my waitlist.
- ...recommend them to another professor who asks about them.
- ...introduce them to outside professionals (e.g. for internships).

- ...arrange an Independent Study course with them.
- ...write letters of recommendation for them.

Policies for Late Work

When you submit a project late, you miss the chance to share, discuss and get feedback on your work. These are some of the most valuable affordances of this class.

To receive critical feedback on your work, your work must be available for evaluation during the designated review period. For example, at times this semester, your creative projects may be evaluated by your peers in an in-class critique, or by outside experts who review your work online. If your assignment is not viewable by the time those persons do their reviews, then your work will likely not receive feedback from them. Likewise, generally speaking, my feedback for late work is comparatively attenuated.

To receive full credit towards your grade, projects should be documented and uploaded by the time that I get around to reviewing them. This is usually within a week after their stated due date. If your project is more than a week late, I reserve the right to assume it is **foregone** (if you have not made an arrangement with me, and if less than 15% has been completed). For work which is complete but late, I may assign partial credit to it (generally an 80% multiplier on all checklist points). If you know you're going to be just a little bit late with a project, *contact me* to arrange an accommodation.

Feedback and Critique

We are a diverse group with broad interests and a great deal of interdisciplinary hybridity. It is impossible to have one single standard we can use for "what is good".

Sharing our perspective in critiques, and understanding that others may have other perspectives on what is good, **is an act of care**. In art school, it is one of the highest forms of care we can give each other. Outside of art school, if people don't find your work compelling, they will not tell you so; they will simply move on to something they like better. Critiques in an art school are a gift — a context in which you can receive feedback from "inside the house". Take them seriously and give a good faith effort to help your peers.

There often isn't enough time to provide in-depth feedback for all students during critiques. If you would like more feedback on a project, ask me.

Academic Integrity

Your behavior as a responsible member of the new-media arts community is very important — as demonstrated, for example, by properly citing your sources and borrowed code, and crediting those who have helped you. These expectations and obligations are addressed here.

Policies for Open-Ended Creative Projects

For your open-ended creative projects, there are no "correct answers". Your curiosity, creativity, ingenuity and originality are prized.

You may borrow code or ideas from other sources, within the limits of principles described below, provided you acknowledge your sources. Your projects will likely be discussed and critiqued in front of (and with the assistance of) your peers.

As art students, you are expected or invited to make extensive use of open-source toolkits, libraries and tutorials. When working in this way, much like a knitting circle, our classroom is structured around peer instruction, in which students are expected to help each other learn.

Use of Online and/or Open-Source Code in Projects

Credit is one of the most important forms of currency in economies of commons-based peer production and open-source media arts. You are expected to cite the source of any code you use. Please note the following expectations and guidelines:

- **Use Libraries.** In your Projects, the use of general-purpose, reusable code libraries that solve specific technical problems is very strongly encouraged. The people who developed these components worked hard, often for no pay; please acknowledge their community contributions by citing their name and linking to their repository.
- **Be Careful.** It sometimes happens that an artist will place the entire source code for their artwork online. You might even discover the work of a student in some other course or school, who has posted their code for a project that responds to a similar assignment. *You should probably avoid this code*, or at the very least, you should be *extremely* careful about approaching such code for any possible re-use. Forking an *artwork* from someone's page on OpenProcessing and simply changing the colors would be disgracefully lazy; doing so without thorough and proper citation would be outright plagiarism.

Policies Regarding Informal Collaboration

Our course places a very high value on civic responsibility, which includes helping others learn. In this course, we strongly encourage you to give help (or ask others for help) in using various toolkits, algorithms, libraries, or other facilities. Please note the following expectations:

- **Giving and receiving help is encouraged.** But students who receive help from someone else are obliged to acknowledge that person in their project report, clarifying the nature of the help that was received.
- **We are all teachers.** Students with advanced skills are expected to help others, yet refrain from doing another's work for them. You can usually tell when you're about to cross the line: Ask yourself whether you are teaching someone to fish, or merely giving them the fish.
- **Give credit.** When in doubt: *give credit* to the people who have helped you.

Policies Regarding Formal Collaboration

The assignments in this course are primarily intended to be executed by individuals. That said, I am in favor of students collaborating occasionally if such collaborations arise organically. Please note the following expectations:

- **Notify the Professor.** It's helpful for me to know who is working with whom. Students who wish to collaborate should jointly inform the professor as early as possible.
- **No third wheels.** Unless permission is explicitly granted by the Professor, collaborations in this course are restricted to *pairs* of students.
- **Describe who did what.** Written reports for collaborative projects should describe how your effort was distributed.
- **Only collaborators from this class.** Your project collaborator, if you have one, must be in this semester's cohort of 60-212 students. You may not collaborate with people from outside the course (e.g. your housemate).
- **Avoid co-dependency.** It's great that you have a bestie, but you may not collaborate with the same person (i.e. submit an assignment jointly) on more than two projects.

Policies and Suggestions Regarding Generative AI

In this class, you are permitted and encouraged to explore the affordances of generative AI as an instrument for art-making.

With only a few exceptions (I'll be clear), you are *affirmatively encouraged* to use generative AI systems (such as ChatGPT, Claude, or CoPilot) to assist you with your programming projects. Indeed: it is incumbent upon us to explore how these systems are changing the nature of creative coding and software development. In using AI systems in your classwork, please keep the following in mind:

- **Use your own words when requested.** You will be asked to produce a handful of extremely brief writing assignments (such as providing anonymous critical feedback to your peers, or narrating how you made something, or writing [Looking Outwards](#) reports) where your own thoughts, opinions, and voice are prized. These will not be difficult writing assignments. Using AI tools to write them for you would represent a bad-faith posture.
- **Take ownership of your work**, including activities supported by AI. The more you develop projects through your own thinking and labor, the easier it is to stand by the work you produce. You are fully responsible for all of the material you produce in this class, even if some of it was generated with the help of AI. Be prepared to stand behind everything you develop.
- **Acknowledge your use.** Carnegie Mellon University's Academic Integrity Policy prohibits use of unauthorized assistance to complete coursework, but allows instructors to define what is "authorized" versus "unauthorized". So

here it is: in this course, if you use an LLM or generative AI system to assist you in the creation of a project, *you are required to say so* — in exactly the same way that you would cite another author, acknowledge using some code you found online, or acknowledge receiving help from another student. In your project write-up and/or in your code, please state which system you used, and how you used it. Your honesty in this matter is of the utmost importance as we all learn to understand this new landscape.

- **There's no short-cut to skill.** The person who benefits most from engaging with studio work and academic projects is you. There are many instances where you may be able to use AI to assist with or even take over tasks. However, you may miss out on important learning opportunities if you don't engage with the intellectual activities that the project entails. There aren't many exercises in this class that could be made wholesale by an AI — but those that possibly could, are basic exercises which have been assigned to you precisely because I genuinely believe you actually need to develop those skills in order to make even more creative stuff.
- **Beware the loss of your time.** You are advised to check claims, verify evidence, and evaluate any sources that appear in AI output. When AI programs lack information, their operations will select less relevant materials or even make up information to complete their responses. Although the results might appear authoritative or unique, the operations behind AI output can produce inaccurate information, over-fit resemblances to pre-existing work, or hard-to-find bugs. It may sometimes be easier just to program the damn thing yourself, than to spend your time coping with an AI's errors, hallucinations, and lack of originality.
- **Beware a push toward normativity.** This is an art course that seeks to cultivate your unique creative voice. But generative AI systems are designed to regurgitate a digested version of stuff they've seen before. The results they generate are often inherently average. Slop may be perfectly adequate to solve a technical problem in which there is a well-defined correct answer, but it is likely unfit for an art project in which the goal is for you to express your own perspective or discover how a medium works. I may hope that you make something *beautiful*; I may hope that you make something *interesting*; but most importantly of all, my assignments in this course challenge you to make something *yours*.
- **Beware the loss of serendipity.** Bob Ross famously quipped, "We don't make mistakes — we just have happy accidents." Although it may be expedient to have a system write your code for you, you may miss out on the chance to become intimately familiar with the grain of your medium, and to have accidents that suggest new possibilities and ideas.
- **Be careful with your private information.** Please be aware that many AI companies ingest and integrate user information; do not enter confidential information as part of any prompt.

Summary of CMU Academic Integrity Policies

Carnegie Mellon University prohibits academic dishonesty. This includes plagiarism, and may consist of: submitting the work of someone else as your own; failing to cite assistance you received; or the failure to properly cite materials or ideas from other sources. **Nearly all of these problems can be easily avoided if you're clear and generous in giving credit where credit is due.**

CMU's [University Policy on Cheating and Plagiarism](#) articulates the possible penalties associated with plagiarism and academic dishonesty. These may include, but are not limited to, zero credit for the specific plagiarized assignment, to failure in the class. If you have any questions about this policy as it relates to work you are doing in the course, please feel free to contact me.

Accommodations

Inclusivity Statement

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. I will gladly honor your request to address you by the pronouns and name you specify.

I commit to make individual arrangements to address disabilities or religious needs (e.g. religious events in conflict with class meetings). Please advise me of these requirements early in the semester so that I may make appropriate accommodations.

Content Considerations

In order to best engage as critical makers and thinkers, we will approach a diverse range of work with care and curiosity. During this course, you may encounter media containing nudity, strong language, or other material that some may find challenging. When possible, advance notice will be given before showing violent or sexual imagery. All content — including student work — must comply with CMU's community standards and applicable laws, and should be relevant to our course material and presented professionally. If you have specific sensitivities or require accommodations, please let me know privately so we can make a plan together.

Code of Conduct

I am committed to providing an educational experience that is free of harassment and intimidation for everyone in this course—regardless of race, color, ethnicity, nationality, sex, handicap or disability, age, sexual orientation, gender identity and expression, physical appearance, body size, religion, class, creed, ancestry, belief, veteran status, genetic information, or technology choices. I will not tolerate any form of harassment and/or discriminatory, oppressive, suppressive, or violent behavior.

Harassment may include, but is not limited to, offensive verbal comments, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption, inappropriate or non-consensual physical contact, unwelcome sexual attention, and/or refusing to accept the limits or boundaries set by another participant in our classroom. I further define *suppressive* behavior as any sort of communication that stifles or belittles another (noting that this is an in-class community standard rather than a CMU disciplinary category). Participants who have been asked to stop any behavior are expected to comply immediately. I expect all of the participants in our course community to adhere to this code of conduct—including me, the Professor.

Debate and free exchange of ideas is encouraged, but I will not tolerate harassment. If someone engages in harassing behavior, I may take any action deemed appropriate in the Carnegie Mellon University Policy against [Sexual Harassment and Sexual Assault](#), [Discriminatory Harassment](#), or other [community policies](#). If you experience or witness harassment, threatening behavior, suppressive behavior, or have any other concerns, I encourage you to speak up, say something, and/or let us know immediately.

For incidents that may not violate any formal policies or require disciplinary action, but which still cause harm and necessitate a thoughtful response, Carnegie Mellon has also developed a [Campus Climate and Bias Reporting Protocol](#). This a non-disciplinary mechanism for reporting and informally resolving incidents of alleged bias; it focuses on education, restoration, and strengthening and upholding our core values as a university community. If you need guidance or are uncertain as to what your options are, please feel free to contact CFA's Office for Diversity, Equity, and Inclusion prior to submitting a CCBRP report.

Carnegie Mellon University is firmly committed to intellectual honesty, freedom of inquiry and expression, and respect for the dignity of each individual. Acts of discriminatory harassment or intimidation by a student directed toward any member of the community are inconsistent with this commitment and will not be tolerated. Consistent with the University's Statement of Assurance, prohibited acts include harassment and intimidation motivated by discriminatory intent based on race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Any such harassment or intimidation of or by a student should be referred to the Dean of Student Affairs for resolution.

Classroom Hygiene

As we head back to campus, keep in mind that thousands of students are returning from many different locations — potentially bringing with them some germs you haven't encountered before. In light of this, the following policies and suggestions govern our in-person meetings:

- We will follow current CMU public health guidelines; at minimum, **masks are welcome, respected, and even encouraged**. However: It's important that we be able to see and hear each other well. In the interest of effective interpersonal communication, *feel welcome to lower your mask (if you wish) if you are actively speaking to the entire class*.
- **Drinks** in containers with lids are permitted.
- **Messy or greasy meals** (e.g. sauce-heavy food) in the computer lab are strongly discouraged.

- If you must eat, please do so only at the central table island — **keep food and open drinks away from computer equipment.**

Take Care of Yourself

Please take care of yourself. I encourage you to do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol in excess, getting enough sleep, and taking some time to relax. This will help you achieve your goals and cope with stress. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, it is critically important to seek support. If you or someone you know is in danger of harm to self or others, please call someone immediately, day or night — such as:

- [Counseling and Psychological Services \(CaPS\)](#): +1-412-268-2922
- [Resolve Crisis Network \(UPMC\)](#): +1-888-796-8226
- [On-Campus CMU Police](#): +1-412-268-2323