

# Interactivity and Computation Course Syllabus

## Carnegie Mellon University • Spring 2018 • 60-212

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## MEETING TIMES & LOCATIONS

**Location:** Frank-Ratchye STUDIO for Creative Inquiry, College of Fine Arts, Room CFA-111

**Time:** Fridays, 8:30am – 4:20pm, with a lunch break. Optional work sessions on Thursday evenings.

**Course Calendar:** <http://bit.ly/golancoursecalendar>

## COURSE DESCRIPTION

This is an “intromediate” course in creative coding, interactive new media art, and computational design. Our goal is to develop an understanding of the contexts, tools, and idioms of software programming in the arts. Intended as a second course for students who have already had one semester of elementary programming (in any language), this course is for you if you'd like to use code to make art, design, architecture, and/or games – *and* if you're already fluent in the basics of programming, such as *for()* loops, *if()* statements, and arrays.

This is a “studio art course in computer science”, in which our objective is art and design, but the medium is student-written software. The course develops skills and understanding of text-based, imperative programming techniques in a variety of popular open-source arts-engineering toolkits, including p5.js (JavaScript), Processing (Java), and openFrameworks (C++), with the aim of applying such skills to interactive art and design, information visualization, generative media, and other creative cultural practices. Rigorous programming exercises will develop the basic vocabulary of constructs that govern static, dynamic, and interactive form. Topics include the computational manipulation of: point, line and shape; texture, value and color; time, change and motion; reactivity, connectivity and feedback; interactive graphics, sound, and simulation; and the incorporation of various modes of input (sensors, cameras) and multimedia output.

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# OVERVIEW

## LEARNING OBJECTIVES

Upon successful completion of this course, students will:

- Have practical skills in the use of popular open-source arts engineering tools, such as p5.js, Processing and OpenFrameworks, for new-media arts development
- Gain familiarity with the repertoire of artists, designers, works and activities around interactive art, visualization, and computational design
- Understand how to document and present creative work online, and in person
- Be proficient in creating computer programs capable of responding to user interaction, in a variety of different environments; and have developed an understanding of the underlying concepts of computation and their role in the arts.

## DELIVERABLES

This is a studio course, whose emphasis is the development of *fluency through regular practice*. This course expects students to produce weekly *Deliverables*, which consist of *Projects* and *Looking Outwards* reports. All Deliverables are to be posted (according to requested requirements) on the course Wordpress website. There are eight main Projects due at approximately weekly intervals, including a multiphase project with a proposal, check-in, and public exhibition phase. In addition, students will write ten "Looking Outwards" research reports based on Internet or library research.

The **Projects** for Spring 2018 are as follows. Note that this list (and its order) is subject to change.

- Introduction to Creative Coding Toolkits. Geometry Test. Recode.
- Graphic Loop
- Clock
- Generative Plot
- Speech Interaction
- Body Data Visualization
- Mechatronic Automaton
- Augmented Reality

In addition to the above, students are also expected to write 10 **Looking Outwards** reports. For these small assignments, you are asked to "look outwards" – to browse various resources in order to deepen your knowledge of the field. You are expected to report on your findings: hopefully, with a critical perspective. For some weeks, the "Looking Outwards" deliverables may be thematically oriented. After completing the sequence of Looking Outwards reports, students will be able to:

- Demonstrate familiarity with historic and/or contemporary new-media projects relevant to that student's specific research interests;
- Demonstrate familiarity with new-media projects that exemplify cultural practice with widely-used arts-engineering toolkits and/or with specific technologies.

# ADMINISTRATA

## PREREQUISITES

There are no specific *course* prerequisites for this course, but students *must* be familiar with programming basics, such as *for()* loops, *if()* statements, arrays, and objects, as taught in a course like 15-104, 15-110, or 15-112. A strong foundation in mathematics will also be very helpful.

## CREDITS ALLOCATED

60-212 provides 10 units of academic credit, and satisfies the software skills portal requirement for CFA (arts), Dietrich (humanities), and other students pursuing IDeATe minors and concentrations. 60-212 additionally satisfies the same Electronic Media Studio requirement as 60-210 (sometimes called EMS2) for students pursuing BFA and BXA majors in the School of Art.

## REQUIRED COURSE MATERIALS

*Laptop.* Students should have access to a personal laptop. OSX, Windows and Linux are all acceptable. However, although nearly 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 OSX. A smartphone that supports a JavaScript-enabled web browser will also be extremely helpful for some projects.

The programming environments used for example projects and sample code are *p5.js* (JavaScript), *Processing* (Java), and/or *OpenFrameworks* (C++). For projects that require OpenFrameworks, students should have a suitable IDE installed (such as XCode or Visual Studio). Students may also use Python or Max/MSP, unless stated otherwise, though please note that instruction is not offered in these environments.

*Sketchbook.* It is wise to plan your projects on paper before writing any code. You are therefore requested to maintain a paper sketchbook for this course.

## OPTIONAL COURSE MATERIALS

This semester we may make occasional reference to the following media, and their associated online materials (YouTube videos, Github code repositories, etc.). You may purchase them if you wish.

- James George and Jonathan Minard, *CLOUDS* Documentary
- Lauren McCarthy, *Getting Started with p5.js*
- Casey Reas and Ben Fry, *Processing: A Handbook*
- Dan Shiffman, *Learning Processing*
- OF Community, *OFBook*

# CIVICS AND ATTENDANCE

## ATTENDANCE AND PRESENCE

It has been said: *80% of success is just showing up*. This class is structured around “peer learning”, and there are a number of *collaborative* projects. Thus, your physical presence and civic participation in the class are extremely important. Every two unexcused absences will lower your final grade by an additional letter. If you’re ill, or if you know you will have a planned absence, please let me know 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. Text messages (+1.917.520.7456) or Twitter (@golan) are also good ways to reach me in a hurry.

Physical presence means nothing if you're “checked out”; your mental presence is paramount. During the professor's lectures, *open laptops and social media are prohibited*. Likewise, sleeping in class happens to be a personal pet peeve of the Professor. If you sleep during a lecture, you will be poked, and asked to leave. If it happens more than once, you will be asked to leave, and also given an “absent” mark. *You will incur holy wrath if you sleep in class during a guest lecture*.

## A WORD ABOUT UNEXCUSED ABSENCES IN CRITIQUES

Sometimes, students who haven't completed their projects skip class during critique sessions, because they are too embarrassed to come to class empty-handed. This type of absence is particularly self-destructive, and is one of the most objectionable, cowardly, and ignominious things you can do in this class. *Have courage*. Your participation on critique days is essential, even if your project is incomplete, because these sessions and conversations help you understand our class standards, expectations and criteria for good work. Even if your own project is unfinished, you are still expected to contribute productively to the class discussion.

If you are absent from class during a critique, *it would really be best* if I do not accidentally encounter you later that day in the hallway, chatting away with your friends. I take your attendance seriously, and your attendance during critiques most seriously of all.

## LATENESS ON THE DAY OF THE FINAL EXHIBITION

Our class's end-of-semester exhibition is a special event in which we present our work to the public. It usually takes place in the STUDIO facility. With all of the competing requirements for space, tables, computers, and special adapters, it requires several hours of preparation. For this reason I require everyone to arrive to install their project at least 90 minutes before the final exhibition—even if it only takes 5 minutes to set up. There is a special circle of hell for students who arrive five minutes before opening time, and then have the nerve to ask for space/equipment/cables/anything.

*Showing up late to set up on the final exhibition day, without prior arrangement by email, will cost you one letter grade. “Late” means: less than 90 minutes before the official exhibition opening time.*

## COMMUNICATION TOOLS

This course uses the following software systems to share information:

- Email. You will receive emails once or twice a week from the Professor. *Please read them.*
- A WordPress website, through which students publish Deliverables and more
- We may, if desired, also create a Slack channel or Piazza portal
- A Google Calendar, <http://bit.ly/golancoursecalendar>

# RUBRICS AND GRADING

## GENERAL EXPECTATIONS

There are a few elementary things you can do to ensure that you receive a totally respectable grade in this course. These things may seem simple and obvious, but it's sometimes surprising how few students seem to get this right:

- Have a positive attitude.
- Show up to all of the course sessions, on time.
- Communicate with your professor beforehand if you must miss a session.
- Submit all of the Deliverables, on time.
- Follow instructions: *do all parts of the Deliverables*, paying careful attention to seemingly trivial administrative requirements (such as categorizing your blog posts correctly, formatting your code properly, giving your blog post a title in the requested format etc.).

There are also some things you can do to earn a really *great* grade in this course:

- Make interesting, novel, provocative work that's well-crafted. And document it well.
- Be fearless and resourceful about getting the assistance you need.
- Help your classmates when they're stuck.
- Make helpful contributions to discussions.

## FOLLOW YOUR PASSION

This is art school. With very rare exceptions (I'll be clear), I will always prefer that you make the assignment interesting to you – if necessary, by creatively bending the rules or re-interpreting the assignment. My assignments are starting-points, prompts and propositions. They are “opportunities for genius.” Think beyond them.

Notwithstanding the above, you will always be expected to conform to certain basic expectations in regards to deliverables and documentation. *Did you include an image of your project? Did you write the requested narrative?* These expectations are non-negotiable.

## POLICIES FOR LATE WORK

Our class is fast-paced. When you submit work late, you lose big-time – not just because of some point-deduction scheme, but primarily because you miss the chance to share, show off, discuss and get feedback on your work.

*Too Late.* This semester, we will be grading your creative projects in an unconventional way, in which the evaluation of your projects is (in part) performed by outside experts who review your work online. If your assignment is not uploaded and documented online by the time those persons do their reviews, then it is officially considered “too late” and will not be able to earn meaningful credit.

For other projects, such as Looking Outwards blog posts: These had best be uploaded and completed by the time that I get around to grading them, which is usually a few days after their stated due date. If not, I reserve the right to assign partial or zero credit to them.

- Generally I grade work a few days after the due date. *I offer no precise details about this.*
- Projects submitted after the external reviewers have done their evaluations will get a 25% grade deduction, and will probably not receive written feedback, or will receive significantly attenuated written feedback.

## RUBRICS FOR CREATIVE PROJECTS

The purpose of our open-ended Projects is to provide well-circumscribed opportunities for you to make creative work with code. Generally the Project prompts will invite you to explore a specific conceptual theme or set of programming techniques, but, unless stated otherwise, there is no correct solution, and no specific requirement for how to implement your idea. A Project also asks not just for a creative solution, but also for some creativity in defining and approaching the problem. It is expected that your Projects will be documented and published on this WordPress website.

The eight open-ended Projects will be evaluated according to the following 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?
- *Fulfillment:* Did you meet all of the requested supporting criteria (such as providing scans of sketches, categorizing your blog post correctly, documenting your process, etc.)?

With Projects, *it may not matter how much time a student 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.

Projects always have a list of supporting requirements. These are straightforward to fulfill, but if you fail to meet these, you will have points deducted. Nearly every Project assignment will ask you to:

- Create a unique blog post for your project, on our course website.
- Make sure your blog post is titled and categorized as requested.
- Embed your interactive project into the post, if this is technologically possible. Make sure its code is visible (with the p5.js embedder or WP-Syntax plugins) or properly linked (e.g. to your Github repository).
- Include a static documentation image of your project, such as a screenshot or photograph.
- Include scans or photos of any notebook sketches, if you have them.
- In the case of dynamic work, include dynamic documentation too: embed a YouTube, Vimeo demonstrating your project. Often, an animated GIF will be required.
- Write 100-200 words about your project, describing its development process. In your writing, include some critical reflection and analysis of your project:  
*In what ways did you succeed, and in what ways could it be better?*

Related to our course policies on Academic Integrity, you must also:

- Name any other students from the class from whom you received advice or help. 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 super important, folks. Err on the side of generosity.*

Projects will be graded with scores of 0,1,2, or 3, 4, as follows:

- 0 (F) – *No Credit*, generally because the student failed to deliver the assignment at all.
- 1 (L) – *Too Late*. The project, regardless of its brilliance, was submitted so late as to miss the chance to be evaluated by our external reviewers. The train has left the station. Sorry. The one (1) point is a meager consolation prize.
- 1 (D) – *A Mess*. The project doesn't work, has major bugs, or is incomplete to the extent that it is impossible to get a clear idea of the user experience. Hopefully less than 10% of the class will earn this grade.
- 2 (C) – *Unremarkable, Weak, Poor, or Mediocre*. Unimaginative work, perhaps only technically satisfactory. The student phoned it in, and the project, while just functional, reveals a lack of evident care. Both the technical execution and the concept are sufficient but not outstanding. Sometimes 30% of the class will earn this grade.
- 3 (B) – *Satisfactory or Good Work*, successfully meeting criteria. Generally 50% of the class will earn this grade. This grade is for good concepts with excellent technical executions. Or, vice versa: for excellent ideas with good technical execution.
- 4 (A) – *Outstanding or Exceptional* in both concept and implementation. We are fortunate when 10% of the class earns this grade. This is Sturgeon's Law; look it up.

*Hey. Read this.* Not every project you make can or will be a work of brilliance. Get over it. In this class, it is much more important to submit work on time than to freeze up, because your work isn't perfect or mind-blowingly original. Bang it out and then get some sleep. This class is about developing fluency through practice. When you're just learning how to speak a new language, no one expects you to make beautiful poetry. And in the media arts, it's often the case that someone has done something similar before. It's OK to revisit the past in introductory situations.

## RUBRICS FOR "LOOKING OUTWARDS" REPORTS

The purpose of "Looking Outwards" Assignments (LO) reports is for you to become familiar with the landscape of contemporary practices in computational new media, and to begin to articulate your own set of interests and concerns within that landscape. To that end, your ten Looking Outwards reports will form a kind of "research diary".

The Looking Outwards reports, taken together, comprise 10% of your Deliverables grade. Each Looking Outwards report will earn 1 percentage point, up to a total of 10. You may be occasionally asked to discuss or present a project you reported about in a Looking Outwards assignment.

LO's are given a grade of Pass (1) or Fail (0). Decent reports submitted by the stated deadline will pass. Missing, overdue and/or manifestly shoddy work will fail.

This semester, I am also introducing a grade of (2) for Looking Outwards reports. This "double credit" grade is reserved for reports which involve library research and the digitization of media produced prior to 1993. This grade is offered to encourage students to *look further* than the latest blog post on CreativeApplications.net.

Your professor is attentive to the evident care you put into Looking Outwards reports. Good LO's will meet the following criteria:

- You include an embedded image or video of the documented project.
- You have written approximately 100-200 words on the project.
- You explain the project, and make an effort to critique it.
- You have published the above in a blog post, on time.
- Your Looking Outwards blog post is well-titled and correctly categorized.
- Your writing is careful, considered, and critical.

## SEMESTER GRADING BREAKDOWN

Participation/Engagement (20%)  
Looking Outwards Reports (10%)  
Projects and other Deliverables (70%)



# RUBRICS: DEFINITIONS

Here's a rubric for how to succeed in a course like this, courtesy of Professor Kristin Hughes:

	Excellent	Good	Needs Improvement	Unacceptable
<b>Process</b>	breadth and depth of ideas generated and explored is extensive; evidence of steady progress shown through sketches, models, notes, etc. is clear and consistent; ideas are thoroughly evaluated and clearly used to inform steps taken in development and refinement stages	the required amount of ideas are generated and are moderately varied, some sporadic evidence of progress is shown through sketches, models, notes, etc.; ideas are evaluated and connected loosely to the development and refinement stages of projects	a few ideas are often generated; little evidence of progress is shown through sketches, models, notes, etc., ideas appear to be occasionally evaluated; loose connections of process work to the development and refinement of ideas is seldom visible	a single idea is typically generated; evidence of any progress is difficult to find; few sketches, models, notes, etc. have been made; evaluation of ideas isn't evident; connection of process work to the development and refinement of ideas is unclear
<b>Work</b>	consistently high-quality work is generated that takes an unconventional, yet appropriate approach to problem solving; craftsmanship is stellar; ideas are communicated clearly in visual and verbal forms, understanding of key course concepts is illustrated in work	good-quality work is created that appropriately addresses the requirements of projects; no significant problem areas are visible; craftsmanship is very good; visual and verbal communication of ideas is understandable; understanding of most course concepts is illustrated in work	the minimal amount of work is generated and is of fair-quality; work addresses some of the requirements of projects; craftsmanship is good; visual and verbal communication of idea is difficult to understand; basic grasp of some course concepts is illustrated in work	poor-quality work is repeatedly generated that addresses few of the requirements of projects; craftsmanship is poor; ideas communicated using visual and verbal forms are incoherent; grasp of key concepts isn't evident in work
<b>Participation</b>	articulation of ideas is clear; constructive criticism is often given; appropriate and valuable contributions to critiques and discussions are frequently provided; attention to class activities is consistently strong	articulation of ideas is often clear; constructive criticism is occasionally given; contributions to critiques and discussions are sometimes provided; attention to class activities is fairly consistent and good	articulation of ideas is often unclear; constructive criticism is seldom given; contributions to critiques and discussions are occasionally provided; attention to class activities is sporadic	articulation of ideas is usually unclear; constructive criticism is typically not given; contributions to critiques and discussions are rarely provided; attention to class activities is poor
<b>Attitude</b>	classes aren't missed and attendance is prompt; all assignments are completed on time; attitude is consistently positive; commitment to class, instructors, peers, and professional development is always exhibited	classes are seldom missed and attendance is usually prompt; most assignments are completed on time; attitude is usually positive; commitment to class, instructors, peers, and professional development is often exhibited	classes are occasionally missed and there are a few lapses in promptness; some assignments are completed on time; attitude is sometimes negative; occasional lack of commitment to class, instructors, peers, and professional development is exhibited	classes are frequently missed and attendance is repeatedly tardy; few assignments are completed on time according to project requirements; attitude is often negative; lack of a commitment to class, instructors, peers, and professional development is exhibited

# ACADEMIC INTEGRITY

Your behavior as a responsible member of the new-media arts community is very important — as evidenced, for example, by the proper citation of your sources and borrowed code, and credit to those who have helped you. This is addressed in our course *Academic Integrity Policy*.

## SUMMARY OF CMU ACADEMIC INTEGRITY POLICIES

Link: <https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html>

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

Please read the *University Policy on Cheating and Plagiarism* (link above) carefully to understand the penalties associated with academic dishonesty at Carnegie Mellon University. I reserve the right to determine an appropriate penalty based on the violation of academic dishonesty that occurs. *The penalty for plagiarizing may range from failure on the specific plagiarized assignment to failure in the class. Repeat offenses can result in severe penalties including, potentially, expulsion from the university.* If you have any questions about this policy and any work you are doing in the course, please feel free to contact the professor(s) for help.

## POLICIES FOR OPEN-ENDED CREATIVE PROJECTS

For your open-ended, public-facing Projects, which will be presented and hosted in this WordPress site, there is no "correct answer". Your curiosity, creativity, ingenuity and originality are prized. You may borrow code or ideas from other sources, within the limits of certain "reasonable person" principles described below, *provided you attribute your sources*. Your work will appear, publicly, on the open Internet. Your Projects will likely be discussed and critiqued in front of (and with the assistance of) your peers.

As studio art students, you are expected or invited to make extensive use of open-source libraries and freely-distributed code. 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, and invited to collaborate.

## USE OF FREE AND OPEN-SOURCE CODE IN PROJECTS

Credit is perhaps the most important form of currency in the economies of commons-based peer production and open-source media arts. *You must cite the source of any code you use.* Please note the following expectations and guidelines:

- *Check the License.* When using others' code in your Projects, pay very careful attention to the license under which it has been released, and be certain to fulfill the terms and requirements of those licenses. Descriptions of common licenses, and their requirements, can be found [here](#) and [here](#). Some licenses may require permission (obtain it!) or even require you to purchase the author a beer.
- *Use Libraries.* In your Projects, the use of general, repurposable libraries is *strongly encouraged*. The people who developed and contributed these components to the community worked hard, often for no pay; acknowledge them by citing their name and linking to their repository.
- *Be Careful.* It sometimes happens that an artist places the entire source code for their sketch or artwork online, as a resource from which others can learn. The assignments professors give in new-media arts courses are often similar (e.g. "Clock"); you may also discover the work of a student in some other class or school, who has posted code for a project which responds to a similar assignment. *You should probably avoid this code. At the very least, you should be very, very careful about approaching such code for possible re-use.* If it is necessary to do so, it is best to extract components that solve a specific technical problem, rather than those parts which operate to create a poetic experience. Your challenge, if and/or when you work with others' code, is to make it your own. It should be clear that downloading an artwork from someone's Github and simply changing the colors would be disgracefully lazy. And doing so without proper citation would be outright plagiarism.

## POLICIES REGARDING INFORMAL COLLABORATION

Our course places a high value on *civic responsibility* that includes, but is not limited to, 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:

- In this class, it's OK to give and receive help. 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.
- Students who receive help from someone else, such as a classmate or friend, are obliged to acknowledge that person in their project report, clarifying the nature of the help.
- *We are all teachers.* Students with advanced skills are expected to help others, yet refrain from doing another's work for them. One can usually tell when one is about to cross the line. Ask yourself whether you are teaching someone to fish, or merely giving them the fish.
- When in doubt: give credit to the people who have helped you. *Credit is currency.*

## POLICIES REGARDING FORMAL COLLABORATION

This class will have a mix of solo and collaborative projects. In the field of new media arts, many projects require a diverse set of skills. Please note the following expectations:

For projects for which solo responses are expected, students who wish to collaborate should jointly inform the professor as early as possible.

- Collaborations in this course, if they arise, are restricted to pairs of students.
- Written reports for collaborative projects should describe how your effort was distributed.
- Your Project collaborator, if you have one, must be in this class. For the purposes of this course, you may not collaborate with people from outside the course (e.g. your housemate).
- You may not collaborate with the same person on more than two projects.
- There may be additional restrictions on the number of collaborations you may have (for example: you may not collaborate on more than two of the Projects).

# CODE OF CONDUCT

## SHORT VERSION

Creepy or harassing behavior will not be tolerated under any circumstances.

## LONGER VERSION

I (your professor) am committed to providing an educational experience that is free of harassment and intimidation for everyone in this course—regardless of gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, ethnicity, nationality, religion (or lack thereof), 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. Participants who have been asked to stop any behavior are expected to comply immediately. I expect all of the participants in our classroom 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. 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 me know immediately.

It is my intent that students from 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. It is my intent to present activities that accommodate and value a diversity of backgrounds. I will gladly honor your request to address you by your preferred name and pronoun. I commit to make individual arrangements to address disabilities or religious needs; please advise me of these early in the semester so that I may make appropriate changes to my plans and records.

*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.*

# SOCIAL RULES

## SOCIAL RULES (Adapted from *Hacker School*)

To further remove obstacles to learning, in addition to the above Code of Conduct, we also have a small set of social rules for our class. The rules below have been quoted/adapted from Hacker School's *Social Rules*, and can be found online at <https://www.recurse.com/manual>.

These rules are intended to be lightweight, and to make more explicit certain social norms that are normally implicit. Most of these social rules really boil down to “don't be a jerk” or “don't be annoying.” Of course, almost nobody sets out to be a jerk or annoying, so telling people not to be jerks isn't a very productive strategy. That's why our social rules are designed to curtail *specific behavior* known be destructive to a supportive, productive, and fun learning environment.

## A WORD ABOUT FEAR

An obstacle we try to remove is fear. We think this is one of the most pernicious impediments to education. In most of the world, but especially school and work, people are afraid of looking stupid. This fear frequently keeps us from asking important questions like “how does that work?” or even just “why?” Worse, it keeps us from saying “I don't understand.” That means many of us muddle on with a half-baked or entirely incorrect understanding of core concepts. This is particularly bad with programming, because these misunderstandings compound, and over time become harder and more embarrassing to admit to and address.

Did you know there's a well-documented phenomenon in which highly qualified people go through life feeling like they're a bunch of frauds and don't deserve the things they've achieved? It's common in work (“I can't believe I made it past the interviews. Surely someone will figure out I'm wildly incompetent and fire me soon!”) and school (“Everyone here is so much smarter than me. I got in on a fluke.”). This is called impostor syndrome.

This is why saying “I don't know” or “I don't understand” is a positive thing. It's an opportunity for you to learn something new, and for someone else to help you with it (or vice versa).

## No FEIGNING SURPRISE

The first rule means you shouldn't act surprised when people say they don't know something. This applies to both technical things (“What?! I can't believe you don't know what the stack is!”) and non-technical things (“You don't know who RMS is?!”). Feigning surprise has absolutely no social or educational benefit: When people feign surprise, it's usually to make them feel better about themselves and others feel worse. And even when that's not the intention, it's almost always the effect. This rule is tightly coupled to our belief in the importance of people feeling comfortable saying “I don't know” and “I don't understand.”

## NO WELL-ACTUALLY'S

A *well-actually* happens when someone says something that's almost – but not entirely – correct, and you say, “well, actually...” and then give a minor correction. This is especially annoying when the correction has no bearing on the actual conversation. This doesn't mean our classroom isn't about truth-seeking or that we don't care about being precise. Many well-actually's are about grandstanding, not truth-seeking.

## NO BACK-SEAT DRIVING

If you overhear people working through a problem, you shouldn't intermittently lob advice across the room. This can lead to the “too many cooks” problem, but more important, it can be rude and disruptive to half-participate in a conversation. This isn't to say you shouldn't help, offer advice, or join conversations. On the contrary, we encourage all those things. Rather, it just means that when you want to help out or work with others, you should fully engage and not just butt in sporadically.

# DEALING WITH STRESS

## TAKE CARE OF YOURSELF

Please do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit their website at <http://www.cmu.edu/counseling/>. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of harm to self or others, call someone immediately, day or night:

CaPS Counseling:	412-268-2922
Re:solve Crisis Network:	888-796-8226
On campus CMU Police:	412-268-2323

# FREEDOM OF SPEECH COMMITMENT

*This course may present content that includes nudity and imagery, language, or dialogue that may offend some students. In viewing and discussing works of art, we encourage the broadest possible tolerance consistent with United States law.*

Being in an art school, you should expect to be exposed to content that challenges your moral, ethical, and aesthetic values. In case of extremely graphic content I will warn the class in advance, but if you have a history of PTSD please let me know privately if there are types of content that are known to act as trauma triggers for you.

Freedom of speech is the foundation of our community and our nation. The works we view or produce in this class may awe, illuminate, challenge, unsettle, confound, provoke, and, at times, offend. We defend the freedom to create content and exhibit such work anywhere in the world, and we recognize the privilege of living in a country where creating, exhibiting, and experiencing such work is a constitutional right.

To exhibit a work of art is not to endorse the work or the vision, ideas, and opinions of the artist. It is to uphold the right of all to experience diverse visions and views. If and when controversies arise from the exhibition of a work of art, we welcome public discussion and debate with the belief that such discussion is integral to the experience of the art. Consistent with our fundamental commitment to freedom of speech, however, we will not censor exhibitions or other presentations in response to political or ideological pressure.

Too often complaints are made through calls to the Dean or a Trustee, and the educator is the last to be informed of the charge. If you feel offended by course content, please first contact the professor privately in writing. In your email or letter, please address the following questions:

- To what in the presented work or assignment do you object?
- What do you believe is the theme or purpose of this work?
- What do you feel might be the result of viewing, reading or learning about this work?
- Is there a work of equal value that you would recommend which would serve as an alternative to the work in question?

Materials are considered innocent until proven guilty. Allegedly offensive materials will not be removed until after the review process has completed.



# FERPA WAIVER

*FERPA* (The Family Educational Rights and Privacy Act) is a federal law protecting the confidentiality of student records. It restricts others from accessing or discussing your educational records without your consent. In this section, we discuss why you have been asked to sign a waiver, which grants your consent to have your work shown online.

In a typical class, your homeworks (and other information delineating your academic performance) would not be visible to the public. Indeed, the FERPA law requires that you have the right to privacy in this regard. This is one of the main reasons for the existence of so many “walled gardens” for courseware, such as Autolab, Blackboard and Piazza, which keep all student work hidden behind passwords.

An essential component of the educational experience in new media arts, however, is learning how to participate in the “Grand Conversation” all around us, by becoming more effective culture operators. We cannot do this in the safe space of a password-protected courseware module. Our work is strengthened and sharpened in the forge of public scrutiny: in this case, the agora of the Internet.

Sometimes students are afraid to publish something because it is of poor quality. They think that they will receive embarrassing, negative critiques. In fact, negative critique is quite rare. The most common thing that happens when one creates an artwork of poor quality, is that it is simply ignored. Being ignored – this, not being shunned or derided – this is the fate of mediocre work.

On the other hand, if something is truly great is published – and great projects can happen, and have happened, even in an introductory class like this one – there is the chance that it may be circulated widely on the Internet. Every year that I have taught this course, a handful of the students’ projects get blogged and receive as many as 50,000 views in a week. It cannot be emphasized that this is an absolutely transformative experience for students, that cannot be obtained without taking the risk to work publicly. Students get jobs and build careers on the basis of such success.

That said, there are also plenty of reasons why you may wish to work *anonymously*, when you work online. Perhaps you are concerned about stalkers or harassment. Perhaps you wish to address themes in your work which might not meet with the approval of your parents or future employers. These are valid considerations. On our course website, you will be identified by a public-facing username. For these reasons, you have been given the opportunity to select a blog username which can help protect your anonymity.

Do you consent to allow your work (homework assignments) to appear online?

(Note: to be clear, grades will NOT appear publicly.)

I give my consent for my work to appear online.

I DO NOT give my consent for my work to appear online – not even anonymously.

(Signed) \_\_\_\_\_