

# GAM420: Playgramming

Winter 2020, Mondays & Wednesdays, 10:10–11:40am

Location: Daley Building (14 East Jackson Blvd), Room 505

Class website (updated weekly) available at: <http://d2l.depaul.edu>

**Instructor: Kate Hollenbach**

Contact Info: [kate.hollenbach@depaul.edu](mailto:kate.hollenbach@depaul.edu)

Pronouns: she/her or they/them

Office: Daley 205F

Office Hours (also available via video chat with [zoom](#)):

*Mondays, 4–5pm*

*Wednesdays, 1–3pm*

## Course Description

Students learn fundamental programming concepts as they relate to creating visual and interactive media through workshops, readings, videos, collaborative in-class exercises, and weekly solo projects.

Playgramming is a studio course that introduces computer programming to artists and designers. Students write their own software to explore, play, and sketch with code as a means of making art. Students learn basic concepts and techniques of computation and apply these to craft gameplay experiences, improvisational experiments, and software toys. No prior programming experience or knowledge is required. The class uses p5.js, a web-based programming library that is friendly to beginners and designed for creative work.

## Objectives

Software influences the design of architecture, books, video games, movies, and fine art. Learning how to think about software as a medium provides the student an opportunity to examine, question, and even resist existing conventions in digital culture. While this course is only an introduction to creating software in the context of design and the arts, it aspires to encourage students to pursue further studies and new modes of expression.

## Learning Outcomes

Students will learn to:

- Write code for visual media, animation, and interactivity
- Read and learn from others' code
- Troubleshoot/debug technical issues and learn their causes
- Design and plan projects that use code to create compelling experiences

## Software

For this course we will be using p5.js with the online editor.

- p5.js, <http://p5js.org>
- editor, <http://editor.p5js.org>

Create an account on the editor site to keep track of your work. You can work on one of the lab computers in class or on your own laptop.

## Course Website

<http://d2l.depaul.edu>

Detailed assignments, video/reading links, and updates to course materials will be posted online every week.

## Required Media

[Code! Programming with p5.js](#) videos by Dan Shiffman. (Available free on YouTube.)

## Recommended (optional/alternative) Media

If you prefer a written textbook to watching video, I will also make weekly recommendations from this text to cover the same material:

*Getting Started with p5.js*, by Lauren McCarthy, Casey Reas, and Ben Fry. Maker Media, 2015. (available online through Safari Books with your DePaul Campus Connect Account)

## Course Outline

The course schedule will be updated every week on the class D2L page. I expect the outline here will change as we learn more about each other. Please check D2L every week for readings and assignment details.

<b>Week 1</b>	<b>Monday, January 6</b> Introductions What is code? WATCH: Coding Train 1.1-1.6	<b>Wednesday, January 8</b> Statements Drawing: shapes
<b>Week 2</b>	<b>Monday, January 13</b> Statements Drawing: shapes + color WATCH: Coding Train 2.1, 2.2	<b>Wednesday, January 15</b> Variables, mouseX, mouseY DUE: Project 0 WATCH: Coding Train 2.3, 2.4
<b>Week 3</b>	<b>Monday, January 20</b> NO CLASS Martin Luther King Jr. Holiday	<b>Wednesday, January 22</b> Variables, map() DUE: Exercise 1 WATCH: Coding Train 3.1
<b>Week 4</b>	<b>Monday, January 27</b> Conditionals DUE: Project 1 WATCH: Coding Train 3.2, 3.3, 3.4	<b>Wednesday, January 29</b> Conditionals WATCH: Coding Train 3.2, 3.3, 3.4

<b>Week 5</b>	<b>Monday, February 3</b> Mouse functions, keyboard input DUE: Exercise 2 WATCH: Coding Train, 4.1-4.2	<b>Wednesday, February 5</b> Loops
<b>Week 6</b>	<b>Monday, February 10</b> Functions DUE: Project 2 WATCH: Coding Train 5.1-5.3, images	<b>Wednesday, February 12</b> Functions Images
<b>Week 7</b>	<b>Monday, February 17</b> Sound, Text, and Motion DUE: Exercise 3	<b>Wednesday, February 19</b> Studio
<b>Week 8</b>	<b>Monday, February 24</b> DUE: Project 3 WATCH: Coding Train, 6.1-6.3	<b>Wednesday, February 26</b> Objects
<b>Week 9</b>	<b>Monday, March 2</b> DUE: Exercise 4 WATCH: Coding Train 7.1-7.3	<b>Wednesday, March 4</b> Arrays
<b>Week 10</b>	<b>Monday, March 9</b> Arrays and objects	<b>Wednesday, March 11</b> Studio day
<b>Week 11</b>	<b>Monday, March 16</b> DUE: Project 4, 10:45am	

## Assignments

All assignments are creative programming assignments designed to exercise your technical skills and creativity. Further details for all assignments will be posted on D2L (<http://d2l.depaul.edu>) Please check there weekly for updates, including detailed requirements for each assignment.

### Assignment List & Due Dates

#### **Project 0: Compose (10%) due 01/15**

Create 3 black + white sketches using simple shapes: one using 6 circles, one depicting a leaf, and one depicting a self portrait.

#### **Exercise 1 (5%) due 01/22**

Complete warm-up exercises (two) and begin planning your design for project 1.

**Project 1: Perform/Move (15%) due 01/27**

Design a simple composition with a small set of shapes. Use mouseX, mouseY, and map() to change the composition as the mouse moves around the screen.

**Exercise 2 (5%) due 02/03**

Complete warm-up exercises (two) and begin planning your design for project 2.

**Project 2: Draw (15%) due 02/10**

Create a drawing program where the user can draw by clicking and dragging the computer mouse. Make several different tools for the user to make marks.

**Exercise 3 (5%) due 02/17**

Complete warm-up exercises (two) and begin planning your design for project 3.

**Project 3: Navigate (15%) due 02/24**

Tentative: Create a small visual world for the viewer to explore with the keyboard and mouse.

**Exercise 4 (5%) due 03/02**

Complete warm-up exercises (two) and begin planning your design for project 4.

**Project 4: Mobile (15%) draft due 03/11, final due 03/16**

Tentative: Create a sketch that responds to the movement of a mobile devices. More details to come.

## Getting Help

Try to solve your own issues for 20-30 minutes, but do not stay stuck. You are encouraged to email the instructor, attend office hours, use CDM tutoring, and ask each other for help!

## Grading and Evaluation

### Project Weighting Breakdown

Final grades will be determined by the following breakdown, with 100 total available points:

- 10 points: Unit 0 / Compose
- 20 points: Unit 1 / Move (Exercise 1: 5 points, Project 1: 15 points)
- 20 points: Unit 2 / Draw (Exercise 2: 5 points, Project 2: 15 points)
- 20 points: Unit 3 / Navigate (Exercise 3: 5 points, Project 3: 15 points)
- 20 points: Unit 4 / Mobile (Exercise 4: 5 points, Project 4: 15 points)
- 10 points: Participation

## Grading Rubric

Work will be evaluated on how well it demonstrates conceptual creativity, visual design, and technical proficiency. An example rubric is provided below; exact point values for each category in each assignment will be posted on D2L.

	<b>Needs Improvement</b>	<b>Satisfactory</b>	<b>Good</b>	<b>Excellent</b>
<b>Conceptual Creativity</b>	Student demonstrates minimal or no creative engagement in their work.	Student demonstrates a satisfactory ability to communicate the concept of the work. The concept is mostly clear, but without depth.	Student demonstrates and communicates consideration of multiple layers of the concept or narrative in their work.	Student demonstrates a strong ability to form a unique take on an existing genre, develop novel interactions, and/or build a compelling narrative.
<b>Visual Design</b>	Student demonstrates minimal ability or effort to handle the visual design aspects of their projects.	Student demonstrates some engagement with color, typography, motion, and form in the work.	Student demonstrates a good understanding of color, typography, motion, and form, but could more closely tie this to demonstrating meaning in the work.	Student demonstrates an excellent understanding of how to apply color, typography, motion, and form to convey meaning in their work.
<b>Technical Proficiency</b>	Student demonstrates a limited understanding of programming concepts discussed in class. Code may be ill formatted, poorly structured, or not run at all.	Student demonstrates competent engagement with materials covered in class: code is very similar to examples, with limited synthesis of concepts. Code has some organization but may still be hard to read.	Student demonstrates an ability to synthesize and combine technical concepts in class. Code is organized and well formatted, with some minor errors or bugs.	Student demonstrates an excellent ability to apply and combine concepts covered in class. Code formatting is organized and easy to read, with minimal bugs and errors.

## Grading Scale

Course final grades will be determined using the following scale

A	95-100	C+	77-79
A-	90-94	C	73-76
B+	87-89	C-	70-72
B	83-86	D	60-69
B-	80-82	F	59 and below

## Turning in Assignments

Please turn in a link to each sketch in the p5.js editor. You can copy the link directly from the address bar in the browser after you save the sketch. You can also go to File -> Share in the editor and select the last (Edit) link—this will let me see your code and project side by side.

Code must be runnable to receive credit! Projects are graded not only for their demonstration of technical skill, but also for creativity and visual design. Something must be visible in the sketch to receive credit for creativity and visual design.

## **Late Work**

Late work will be accepted for up to one week after the due date for 80% credit. After one week, late work is no longer accepted and no points will be earned. Turning in a late assignment is far better than not turning it in at all—some points are better than none!

The D2L Submission box for each assignment will indicate the due date, as well as the end date for the last late submission day.

If you feel behind with the course material, please talk to me as soon as possible so that we can figure out how to get you caught up.

## **Resubmitting Work**

You may resubmit work for Projects and Exercises 1-3 for an improved score, so long as a partially-complete project was submitted by the project due date. Resubmissions will be accepted until 3/9 (Monday, Week 10). You cannot resubmit Exercise 4 or Project 4, as I have to submit grades on time at the end of the quarter.

## **Attendance**

You are expected to attend all 19 classes. You are allowed three absences for regular class periods, excused or unexcused, throughout the quarter. A fourth absence will lower your grade by one whole unit (for example, A- to B-). Each additional missed class will lower the final grade another unit.

Class starts at 10:10am and ends at 11:40am. If you are not present when attendance is called or you leave class early, you will be marked tardy. Three tardies become equivalent to one absence.

## **Participation**

Participation in a studio class is key! Please show up to class prepared to work, be ready to discuss your work and your classmates' work, and stay focused. Ask questions in class and share your thoughts during class discussions and group critiques. Challenge yourself and be encouraging of others as they do the same. Be attentive and considerate to your classmates.

### **Devices**

Time in class should be focused on our course—please do not use your phone or laptop for unrelated web browsing or video watching, or work for other classes when we meet. Please limit cellphone use to essential activities: important/urgent messages from family, monitoring medical devices, etc.

## **Course Policies**

### **Commitment to Diversity and Safer Spaces**

In this class we make a commitment towards diversity by acknowledging the different identities and backgrounds we inhabit. A collaborative effort between the students and the teacher is needed for creating a supportive learning environment. If a class member says that something you have said or shared with the group is offensive, remember this is a valuable opportunity for everyone present to grow

and learn from one another with further discussion. All class members are encouraged to discuss such instances with the instructor so they can be addressed with greater care in the future. [ voidLab / CC SA ]

## **Communication Outside of Class**

Email is the primary means of communication between the instructor and students enrolled in this course outside of class time.

Students should include specific class/section number details in all email correspondence. Please allow 24 hours for a response on a weekday or 48 hours for a response on a weekend or holiday before sending a follow-up email.

Students should check email and D2L for announcements daily.

## **Academic Integrity and Plagiarism**

This course will be subject to the university's academic integrity policy. More information can be found at <https://resources.depaul.edu/teaching-commons/teaching/academic-integrity/Pages/default.aspx>.

There are many, many examples of p5.js and Javascript code online that you are encouraged to seek out and study—however, all code you write for this class should be your own. If you borrow some code from a forum or post online, include a link to the original source as a comment in your code. Not only does this give the original author credit, but it can also be helpful as a reference to you for future use. It can be murky what does and doesn't constitute plagiarism when code is involved. If you are unsure, please ask!

## **College Policies**

### **Changes to Syllabus**

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during class, posted under Announcements in D2L and sent via email.

### **Preferred Name & Gender Pronouns**

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter so that I may make appropriate changes to my records. Please also note that students may choose to identify within the University community with a preferred first name that differs from their legal name and may also update their gender. The preferred first name will appear in University related systems and documents except where the use of the legal name is necessitated or required by University business or legal need. For more information and instructions on how to do so, please see the Student Preferred Name and Gender Policy at <http://policies.depaul.edu/policy/policy.aspx?pid=332>

### **Online Course Evaluations**

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content

to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation.

## **Academic Policies**

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at:

<http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>

## **Incomplete Grades**

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval. Information about the Incomplete Grades policy can be found at

<http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

## **Withdrawal**

Students should always be encouraged to discuss potential financial impacts in advance of making a decision to withdraw. Financial aid and tuition counselors are available in the [DePaul Central Office](#) for this purpose.

Students who miss the final withdrawal deadline and have a valid extenuating circumstance for missing that deadline may submit an appeal for administrative withdrawal to CDM or to the Dean of Students Office using the appropriate online submission form. Note that the CDM administrative withdrawal appeal process is for students who have a legitimate reason for missing the drop date, never attended class or extenuating circumstances that prevented them from withdrawing by the stated deadline. The Dean of Students administrative withdrawal appeal process is for students facing medical, mental health, or personal crises and were not able to withdraw by the stated deadline. If approved, a WA (administrative withdrawal) will appear on the transcript for the course. Students may direct any further questions regarding the financial implications of the administrative withdrawal to [OFA\\_AdmWdrl@depaul.edu](mailto:OFA_AdmWdrl@depaul.edu)

## **Resources**

### **Tutoring**

The College of Computing and Digital Media offers a tutoring center as an additional resource to students in CDM 208. Use the tutoring website to set up an appointment:

<http://www.cdm.depaul.edu/Current%20Students/Pages/TutoringProgram.aspx>

## Software Tutorials

Additional tutorials for using the Adobe Creative Suite are available via LinkedIn Learning (formerly lynda.com). For details on how to log in for free with your DePaul credentials, please see: <https://offices.depaul.edu/information-services/services/technology-training/Pages/online-training.aspx>

## Emergency Plan

An emergency can occur at any time, suddenly and without warning. Proper planning is essential to minimize the impact of any emergency on the university community, operations and facilities. The following link provides detailed information on Emergency Evacuation and Fire Alarm safety: <https://resources.depaul.edu/emergency-plan/emergency-evacuation/Pages/Evacuation.aspx>. The University will use the DPU Alert to announce school closing or other emergencies. In the event of an emergency evacuation, the primary outdoor assembly area for CDM will be Grant Park (Southeast corner of Jackson and Michigan Ave).

## Students with Disabilities

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling them to access accommodations and support services to assist with their success. There are two office locations:

Loop Campus – Lewis Center #1420 – (312) 362-8002

Lincoln Park Campus – Student Center #370 – (773) 325-1677

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gergory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations to be used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible.

Please see <https://offices.depaul.edu/student-affairs/about/departments/Pages/csd.aspx> for Services and Contact Information.

## Important Dates + Academic Calendar

For the entire academic calendar for the year, please see <https://academics.depaul.edu/calendar/Pages/default.aspx> and make sure to pick 2019-2020.

*January 17, 2020 11:59 PM*

Deadline to add classes to Winter 2020 schedule

*January 17, 2020*

Last day to drop Winter 2020 classes with no penalty (100% refund of tuition if applicable and no grade on transcript)

*January 18, 2020*

Grades of "W" assigned for Winter 2020 classes dropped on or after this day

*January 24, 2020*

Last day to select auditor status for Winter 2020 classes

*February 21, 2020*

Last day to withdraw from Winter 2020 classes