



CTIN 202: Foundations of Game Development

Units: 2

Summer 2023 — T/Th 5:00-7:20 PM (PST)

Location: SCB 102

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Course Description

This course teaches foundational concepts for game designers, including the codified language for games and the set of design methodologies that collectively we call “playcentric design.” These techniques represent the way that game development is taught and practiced throughout the USC SCA Interactive Media and Games Division. You will work in small groups to develop a small digital game over the course of several weeks, with iterative milestones and built-in playtesting to guide their progress.

In this course, you will learn fundamental theory that underpins game design, practice the core development process that drives game creation at all scales, and produce a portfolio-quality work of digital interactive media. You will learn how to use different tools for making games at various stages of production. At the end of the course, you will have a complete promotional page for your original game that you can share with friends or present to school programs and potential employers.

Learning Objectives

By the end of this course, you will be able to:

- employ an iterative, playcentric process to develop games
- identify and define the formal elements that compose games
- apply production techniques such as concentric design, task breakdowns, and burndown charts
- describe and present the unique selling points of a game through text, imagery, and video

Prerequisite(s): None.

Co-Requisite(s): None.

Concurrent Enrollment: None.

Recommended Preparation: None.

Course Notes

This course combines elements of a studio production course with theory and lecture. The semester is organized around the development and production of a digital game of portfolio quality. Within the context of the game's production, the course will cover key processes and milestones of digital game development, including ideation, prototyping, playtesting, polishing, and presentation. Students are expected to participate actively and respectfully in the critique of one another's work.

This course will deal with game development using several different digital tools. Each of these has distinct capabilities and limitations. You are not required to have knowledge of programming languages or prior experience with digital game development tools, but students with more advanced experience will be given the option to add more complex elements to their digital game project.

Participating in in-class playtests is a requirement of the class. During each playtest session, the class will break into groups. Designers must quickly and clearly explain their game system to the playtesters and lead them through a short, timed play session. After the group has played the game, the designers must lead a critique of their own game, eliciting as much feedback as possible from their playtesters and taking notes for future iterations.

Technological Proficiency and Hardware/Software Required

There are no technological proficiencies required for this class. Some students will use image creation tools (like Photoshop) or 3D modeling tools (like Maya) to create artwork for their game projects, but students will have alternative sources of images and models available to them. For digital development, students will use Twine, RPG Maker, Ren'Py, Unity, or a similar digital game engine or framework. Students who do not have proficiency in any of these tools will be shown how to use Twine, which does not require complex programming.

Access to a computer is required for this class. Lab computers can be used on campus during designated lab periods. The [USC Computing Center Laptop Loaner Program](#) can provide computers for short-term rental.

Required Readings and Supplementary Materials

There will be several games assigned as reading in this course. These are either available online or will be provided to in class. They are:

Cloud Hop by Angela Nguyen and Megan Yeh. Available at <https://anginguyen.itch.io/cloud-hop>.

Ghostwriter by Brooklyn Humphrey and James Lee. Available at <https://yeetedleek.itch.io/ghostwriter>.

Transformation by Soojung Choi. Available at <https://soruya.itch.io/transformation/>.

In the Nick of Tie-m by Dexter Knaack and Moose Sabharwal. Available at

<https://moosesabharwal.itch.io/in-the-nick-of-tie-m>.

Reversal by Yang Cao, Zian Zhang, Chaoran Huang, and Joseph Setiawan Djafar. Available at

<https://drive.google.com/drive/folders/1h1Jq26CVH664ZkZxHUaXQmq84egh7tmU>.

That's Not How it Happened by Meny Mencil, Annie Feng, Ashley Kim, Rachel Geng, Juan Bernal, Reid Weston, Andrew Wong, Kelly Kim, Kobe Weinstein, Julian Kida, Katiana Sakissian, Trenyce Tong, April Cheng, Chen Qian, Brendan Tighe, Aylish Turner, Yuwei Lin, Gethsy Gonzalez, Gwen Hozman, Sophie Chu, Mi Coz, Destinee McCaster, Stephanie Cheng, Mauricio Miranda, David He, Christopher Bowles, Alex Cap, Mei Zhang, Jenny Jiang, Dexter Knaack, and Luke D'Errico. Available at [https://store.steampowered.com/app/1958400/Thats Not How it Happened/](https://store.steampowered.com/app/1958400/Thats_Not_How_it_Happened/).

When They Come To Your Door by Steven Harmon. Available at

<https://stevenharmongames.github.io/WhenTheyComeToYourDoorSound/>.

Work "Hard" by Jenny Jiang and Johnny Geng. Available at <https://jennyj.itch.io/work-hard>.

Students will also be required to use several free software applications for this class, which may include Twine and Unity. These applications may require students to create user accounts and / or download, install, and run software on their computer.

Optional Readings and Supplementary Materials

Several papers, articles, and talks are recommended reading for students in this course, but are not required. They are:

The Art of Screenshake by Jan Willem Nijman from INDIGO Classes 2013. Available at <https://www.youtube.com/watch?v=AJdEqssNZ-U>.

Game Design Workshop: A Playcentric Approach to Creating Innovative Games by Tracy Fullerton. Excerpts will be provided.

Games aren't always fair, the magic lies in making you think they are by Jennifer Scheurle. Available at <https://www.polygon.com/2017/9/8/16263050/game-design-magic-tricks>.

Postmortem: Ion Storm's Deus Ex by Warren Spector. Available at https://www.gamasutra.com/view/feature/131523/postmortem_ion_storms_deus_ex.php.

Description and Assessment of Assignments

You will complete the following assignments during the course:

Game development - Over the course of about five weeks, you will work with a small team to develop a complete digital game by employing an iterative, playcentric process. This deliverable will be divided into five milestones:

First playable - Your first playable should be a prototype that demonstrates the core mechanic and the core loop of the game. It will be due on Thursday of Week 2.

Second iteration - The second iteration should expand your prototype to include secondary mechanics, exceptions, powerups, or progression mechanics. It will be due on Thursday of Week 3.

Third iteration - The third iteration should expand your prototype to include tertiary mechanics, additional levels, puzzles, new activities, or mini-games. It will be due on Thursday of Week 4.

Beta milestone - The fourth iteration should be feature complete and content complete, but might lack final polish, tuning and balancing, and bug fixing. It will be due on Thursday of Week 5.

Final game - The fifth iteration should be a finished game in a launchable state. It will be due on Tuesday of Week 6.

For each of these milestones, the game will be uploaded to a class repository and played in class on the day it is due. For the first four milestones, playtests will be conducted in class. Each of these milestones will be evaluated on the basis of progress made since the previous iteration, with an emphasis on addressing issues that were identified in the previous playtests. For the last milestone, the game will be played for the class and critiqued by the students and instructors. The final game will be evaluated on the basis of its completeness and polish.

Playtest report - Following the first playtest in Week 2, each student will write a playtest report documenting their observations and the feedback they received from players. The playtest report should follow the format provided in class and include at least six separate items. In addition to a description of each identified issue, the report should include an indication of the issue's priority level and proposed changes to the game to address the issue.

Quiz on formal elements - Each student will complete an online quiz that asks them to identify and describe various formal characteristics of games.

Scope plan - Working together, each group will write a scope plan that describes goals and tasks for the remainder of the production period of their game. This plan should demonstrate that the group has

incorporated production techniques that have been covered in class, such as concentric design, task breakdowns, and burndown charts.

Trailer - Each group will create a video trailer for their game. This trailer should communicate the unique selling points of the game to the viewer, following the guidelines provided in class.

Final collateral - Working together, each group will create the collateral materials needed for an itch.io storefront page for their game. This will include a title, tagline, banner image and background design, cover image, game description, feature list, tags, 3+ static images, and 3+ animated GIFs. All of these assets should communicate the game's unique selling points through text and imagery.

Final presentation - Working together, each group will create a slide deck using Google Slides and present it to the class. The deck should describe and present the game's unique selling points using the game art, trailer, and collateral assets the team created in the course.

In-Class Work

Each lecture will conclude with a short individual writing assignment on a prompt related to the day's topic. This writing should be completed in class in the time allotted.

Grading Breakdown

Assessment Tool (assignments)	Points	% of Grade
Game development	50	50%
Playtest report	5	5%
Quiz on formal elements	5	5%
Scope plan	10	10%
Trailer	10	10%
Final collateral	10	10%
Final presentation	5	5%
In-class work	5	5%
TOTAL	100	100%

Grading Scale

Course final grades will be determined using the following scale:

Letter grade	Corresponding numerical point range
A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

Assignment Submission Policy

Generally, deliverables must be submitted by uploading documents or builds to the class repository, which will be specified in the orientation materials on the first day of class. For assignments that consist of online forms, the deliverable is submission of the form. For specific submission requirements, see the appropriate slides from the class lectures, which will be made available online.

Grading Timeline

Feedback on assignments will be given through a combination of in-class comments and emailed comments. For development milestones, you will receive feedback in class from playtesters as well as instructors. Typically, emailed feedback will be sent a week after the assignment is turned in, but response time will vary. If you have not received feedback on an assignment that was submitted more than a week ago, come to the scheduled office hours or schedule time to meet with the instructor to discuss the assignment.

Attendance

Class attendance is mandatory and expected. Students who miss more than one class may be penalized by having their course grade lowered by one full grade letter for every absence after the first. Being more than 15 minutes late to class will be counted as an absence.

Students who give advance notice of conflicts or religious observances may have their absence approved by the instructors. Approved absences will not be penalized, but students must review the in-class material from the days that they miss and complete any makeup work assigned.

If you are feeling sick or suspect that you may have a contagious illness, contact the instructors and do not come to class. Classes missed due to illness will not be penalized, but missing too many classes may result in receiving an incomplete for the course.

Zoom Etiquette

When using Zoom in connection with this course, you are expected to observe the following etiquette while in a meeting:

- Keep your camera on.
- Keep your microphone muted when you are not speaking.
- Use the built-in functionality to raise your hand if you have a question or wish to raise a new topic.
- You may additionally use the chat functionality to ask or answer questions, or introduce a new topic.

If you have questions or concerns about complying with these policies, please contact the instructors. For example, if you will be unable to keep your camera on during a Zoom meeting, contact the instructors prior to the session to arrange an accommodation.

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

For this class, you are encouraged to copy and modify code from online sources. However, you must always label and provide attribution for work that is not your own, for example by using a credits screen in your game or a credits.txt file delivered with your build. You must provide attribution:

- if you use more than 3 lines of code from an external source without substantially modifying it
- if you use any assets (images, textures, sounds, etc.) that are not your own work

Please ask an instructor if you are unsure about what constitutes unauthorized assistance on an assignment, or what information requires citation and/or attribution.

If found responsible for an academic violation, students may be assigned university outcomes, such as suspension or expulsion from the university, and grade penalties, such as an "F" grade on the assignment, exam, and/or in the course.

Course Content Distribution and Synchronous Session Recordings Policies

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Course Evaluations

Course evaluation occurs at the end of the semester and is an important review of students' experience in the class. Near the end of the course, you will be provided with an individual link to the evaluation form, and time will be set aside in the last class of the semester for you to provide feedback.

Course Schedule

	Topic / Activity	Readings Due	Assignments Due
Week 1 Tuesday	Production I Iterative development Practice: Form teams		
Week 1 Thursday	Ideation Brainstorming Practice: Kickoff		
Week 2 Tuesday	Production II Concentric design	<i>Cloud Hop</i> <i>Ghostwriter</i>	
Week 2 Thursday	Playtesting Feedback and evaluation Practice: Playtests		First playable
Week 3 Tuesday	Game Design I Formal Elements	<i>Transformation</i> <i>When They Come to Your Door</i>	Playtest report
Week 3 Thursday	Game Design II Experience Goals Practice: Playtests		Second iteration
Week 4 Tuesday	Production III Goals and tasks	<i>In the Nick of Tie-m</i> <i>Work "Hard"</i>	Quiz on formal elements
Week 4 Thursday	Production IV Scoping Practice: Playtests		Third iteration
Week 5 Tuesday	Marketing I Portfolio design	<i>Reversal</i> <i>That's Not How it Happened</i>	Scope plan
Week 5 Thursday	Marketing II Trailers Practice: Playtests		Beta milestone
Week 6 Tuesday	Launch Process & collateral		Final game Trailer
Week 6 Thursday	Final Presentation Practice: Final Deadline		Final presentation Final collateral

Statement on Academic Conduct and Support Systems

Academic Integrity:

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see [the student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services

(though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776
OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101
Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call
Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)
A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

<p>PLEASE NOTE: FOOD AND DRINKS (OTHER THAN WATER) ARE NOT PERMITTED IN ANY INSTRUCTIONAL SPACE IN THE SCHOOL OF CINEMATIC ARTS COMPLEX</p>
