

Course # 37358

GAM 244 601 Game Development I

Spring 2021-2022 TuTh 1:30PM-3:00PM Daley 505

In this course students will develop skills in game design and development through the creation of a 2D digital game designed from a set of client-based restrictions. Emphasis will be placed on teamwork and development pipelines for the design and creation of assets and systems. Students will use a combination of prototyping, storyboarding, user stories, character breakdowns, system breakdowns and flowcharts in the design portion of the game. We will be using Gamemaker Studio as the engine to develop and implement the game. The goals of all design done in this course will focus around designing for the needs of a client; solving problems identified by the client; and providing transparency via reports and milestone deliverables.

Gamemaker Version 2022.2.1.618 [Windows] [macOS]

Wed, 09 Mar 2022 15:24:05 Z

2022.2 introduces a new ability to create text tracks/instances and animate these within your sequences, then draw the text later in-game. It also changes a long-time GameMaker behavior that arrays will make and edit a copy when you pass an array into a function, and so we have added an option to maintain the old way if you want. As well as these two important additions, there is the ability to send text to a secure WebSocket, to define colors in the code editor using CSS web standard values and for this to appear correctly in your game, and also a range of important bug fixes.

Please note that projects created or opened in this version and future versions are NOT backwards compatible with 2022.1 or older versions, due to the new Text-In-Sequences functionality. Any such projects will be flagged as "read-only" when loaded into an older IDE and you won't be able to work on them, so please make sure to create a backup of your projects before opening them in this version.

Instructor: Jonathan Hey

Office: CDM 635

Office Hours: M, T, W, TH 3-5 PM

Contact: You may contact me at jhey@depaul.edu. Also, at jhey.depaul@gmail.com and also at jonhey@rcn.com (This one is the email "attached" to D2L mass emails from me). I teach a lot of classes but check emails and phone calls regularly.

My cell is for voice and texts: **(773) 443-7877**. You are encouraged to call or text at any time.

Course Description

This course provides students additional theory and practice with an emphasis on game design and storytelling for games. Students continue learning about game development processes and techniques and how to apply advanced game design principles to create components of a 2D game. If you wish to pursue a 3D game, please talk to me.

Welcome to Game Development I. In this class, we will be focusing on learning to use Gamemaker Studio 2 to create 2D games. We will have multiple projects over the quarter as we learn to create more and more refined experiences.

Students are expected to download and learn to use Gamemaker Studio 2. It is available in the labs here at school if you do not have a computer to work on. You will be using Gamemaker on PC's. There is a Mac version of the software available.

Teams are encouraged. Teams are limited to 3 people at the maximum. It is too difficult to "police" larger groups. Let me know as soon as possible if there are problems within your team.

While there will be lectures to get you moving forward, deep learning of the software will only come from making games and digging for more info on line. You must own your learning experience and seek multiple avenues to get info about the development suite we're using.

Grading:

Each project will be graded on its own rubric however you are expected to be an active, vocal, and polite participant in this classroom.

What follows is a schedule of activities for this class. Depending on the makeup of the class participants, the flow of activities is prone to fluctuate and change. I'll let you know when we deviate from the syllabus. In all cases please be aware that the workload for this class is relatively high.

Class Schedule

Week 1 Introduction and identity Introduction to engine basics (sprites, objects, events, actions) **Assignments:** - Create a splash screen to represent who you are. Using graph paper design the layout for a break out game. Create said game, include room switch from splash screen, ball, paddle, static targets, one moving target, one toy-like interaction. (Don't worry about scoring and whatnot, we're just worried about getting stuff into the engine and getting it interacting in one room)

Week 2 Review Break out games. Delve deeper into sprites creation and working with them. Look at Shoot-em-up games with a historical review of shooters from space war to geometry wars. Deconstruct what's interesting about shooters. Delve deeper into creating behaviors with objects and creating game control objects that manage the flow of play. **Assignments:** Come up with an idea for a shooter. Write a one-page treatment about it. Define the core play of this shooter, sketch out the objects you think are needed and a sample level for your shooter.

Week 3 Look at shooter designs. Break into pairs and do design interviews. One person interviews the other about the game and takes notes on post-its, placing post-it's on large easel graph paper. One post it per event, interaction, object. Once done you have beginnings of asset lists and user stories. Switch roles. By end of session each student should have a collection of post-its to use as the foundation of their game. **Assignment:** Make one room of the game that shows core play in action. This is an *ugly* prototype.

Week 4 Review prototypes. Get feed-back on how to make it work smoother. Discuss level design and verbs. The use of space outside of visible room, player feedback, the importance of sound, facilitating the player, timers and timing and timelines; variables and scope. **Assignment:** Refine first room of shooter. Discuss what mechanics are in play that make it interesting. Design 3 levels that refine the experience increasing difficulty.

Week 5 Review designs. Discussion of game feel and polishing aesthetics of game. **Assignment:** In lab and home build out first pass of these three levels.

Week 6 Collect games and play jam. We will gather all games and play through them giving feedback reports to owners. **Assignment:** Bug list: Create a list of “bugs” and “polish” tasks that come from game feedback. Art Design. Begin polishing the look, feel and play of your shooter. This includes coming up with UI designs, Front ends, Win/Lose screens, effects and sounds.

Week 7 Standups: From here on through last day of class we will be doing weekly presentation of game progress and weekly plays of the games. **Assignment:** Collect notes from play-throughs and build bug list and post weekly plan onto D2L.

Week 8
Standups: Report on game progress and weekly plays of the games. **Assignment:** Collect notes from play throughs and build bug list and post weekly plan onto D2L

Week 9 Feature Complete Due. Present, check-in and get OK move to polish and ship. Make user stories for all known bugs.

Week 10 Alpha Due. Present, check-in and get OK move to polish and ship Make user stories for all known bugs.

Finals Week: *Present Polished Games* There is a lot of room for variation in here and I change it a little every class (for instance sometimes I make that first planning document be a reverse engineering of an existing game and then they can do one of their own). If the class is heavy on engineers, I push a little harder. If the class is heavy on artists, I push a little harder on look and feel. If the class is designer-heavy, I push harder on creating polished play that allows for emergence and visible feedback and facilitation.

Course Policies

Changes to Syllabus

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

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. Please see <https://resources.depaul.edu/teaching-commons/teaching/Pages/online-teaching-evaluations.aspx> for additional information.

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>.

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>

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.

Attendance Students are expected to attend each class and to remain for the duration.

Coming 15 minutes late or leaving 15 minutes early constitutes an absence for the student.

The overall grade for participation drops one-third after any absence. Three absences for any reason, whether excused or not, may constitute failure for the course. If during a lab period, you are on social media instead of attending to the current project, to a level that you must be asked to cease the social media, it may be considered an absence as you are not actually present in the class work.

Class Discussion Student participation in class discussions will be measured in two ways. First, students are highly encouraged to ask questions and offer comments relevant to the day's topic. Participation allows the instructor to "hear" the student's voice when grading papers. Secondly, students will be called upon by the instructor to offer comments related to the reading assignments. Students must keep up with the reading to participate in class discussion.

Attitude A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's opinion, cell phones ringing, emailing, texting or using the internet whether on a phone or computer. If any issues arise a

student may be asked to leave the classroom. The professor will work with the Dean of Students Office to navigate such student issues.

Civil Discourse DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be **Socially Responsible Leaders**. It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course. The professor will partner with the Dean of Students Office to assist in managing such issues.

Cell Phones/On Call If you bring a cell phone to class, it must be off or set to a silent mode. Should you need to answer a call during class, students must leave the room in an undistruptive manner. Out of respect to fellow students and the professor, texting is never allowable in class. If you are required to be on call as part of your job, please advise me at the start of the course.

Important Dates

Saturday March 26, 2022 Begin SQ2022 Classes

Friday April 1, 2022 11:59 PM Deadline to add classes to SQ2022 schedule

**Friday April 8, 2022 Last day to drop SQ2022 classes with no penalty
(100% refund of tuition if applicable and no grade on transcript)**

Saturday April 9, 2022 Grades of "W" assigned for SQ2022 classes dropped on or after this day

Monday April 11, 2022 Last day to select pass/fail option for SQ 2022 classes

Friday April 15, 2022 Good Friday - University officially closed

Saturday April 16, 2022 Easter Holiday - University officially closed

Sunday April 17, 2022 Easter Holiday - University officially closed

Monday April 18, 2022 Last day to select auditor status for SQ2022 classes

Saturday April 23, 2022 Begin SQ2022 optional mid-term exam week

Friday April 29, 2022 End SQ2022 optional mid-term exam week

Friday May 13, 2022 Last day to withdraw from SQ2022 classes

Monday May 30, 2022 Memorial Day - University officially closed

Friday June 3, 2022 End SQ2022 Day & Evening Classes

Saturday June 4, 2022 Begin SQ2022 Day & Evening Final Exams

Friday June 10, 2022 Baccalaureate Mass

Friday June 10, 2022 End Spring Quarter 2022

For more dates information: <https://academics.depaul.edu/calendar/Pages/default.aspx>