



School of Engineering
*Information
Technology Program*

ITP 393 Video Game Project Management

Units: 4

Semester: Spring 2025

When: Wednesdays 3 PM to 6:20 PM

Where: EGG 108 (746 W. Adams)

Instructor: Kyle Ackerman

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Office Hours: See Brightspace

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(please include "ITP 393" in subject line)

Teaching Assistant: TBD

Contact: TBD - cc instructor when emailing TA

IT Help: Viterbi IT

Hours of Service:

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Catalogue Description

Production and project management of video games from concept to release and beyond.

Course Description

Course Description

Overview Trailer

<https://youtu.be/JwF9ZH6ORDI>

Background

GaaS (Games as a Service) is critical component of the Games industry and is increasingly integrated in games of all scale: from mobile to digital PC to console. Even AAA games often have integrated online GaaS elements that help keep the experience fresh for existing players, entice new players to download, and drive incremental revenue for the developer and publisher. But what exactly *is* GaaS?

Discrete games are games that are finite – they have a beginning, middle, and end. The game can be “finished” with some final tally or outcome, even with similarly discrete DLC (downloadable content) that is often sold separately after the launch of the main game. Discrete games are sold as a single disc or digital download and purchased outright for a set price. There are thousands of examples as most games made, prior to the launch of World of Warcraft in 2004, were discrete games: games played via a cartridge or disk that a player paid for, consumed the content as much as they wanted, and then put aside for another experience.

GaaS games run continuously, playable online sometimes against Artificial Intelligence in single-player mode, but more often than not, involve multiplayer against live opponents. The games stay “on” 24 hours a day, 7 days a week and are often not sold singularly, but drive revenue/support with Free to Play

monetization. The developers support and create new content for the game by incentivizing players to purchase digital in-game items, often via microtransactions. Sometimes these microtransactions are for cosmetic items like clothing for an avatar or increased customization, and sometimes they're used to unlock new game modes, buy premium digital items, or for a competitive advantage in the game itself. This is all supported and facilitated by Live Operations (aka "Live Ops" the "LO" in the class's "GLO" acronym) who help deploy, manage, measure, and inform what's happening with players in the game and how to optimize their experience.

How does one teach GaaS and Live Ops in an academic setting? One does so by doing.

Overview

GLO is the first university course that teaches the skills needed to launch and manage a GaaS game. Hosted in the USC Games program, the class is built around the launch and operation of a *live, consumer-facing*, Live Ops gaming ecosystem. Unlike the discrete games that are predominately made in the program, this living game will be constantly supported and updated, with a real-world footprint and a goal to grow the player base.

Everything from design, engineering, art, operations, UI design, QA/user testing, and more, is taught through the lens of a live game. The class will primarily be a lab, with a focus on both planning and practical implementation. Students will work on content on a staggered schedule, as outlined below:

SEMESTER OF COURSE	IMPLEMENTED IN-GAME
Spring 2025	Fall 2025
Fall 2025	Spring 2026
Spring 2026	Fall 2026

Class Rollout

The course launched in Spring 2024 with a game that—while in development—was referred to as "Project: Thorpe" named after Jim Thorpe, the pro golfer. This project name is appropriate because the first GLO game was a golf game. The course is partnering with Epic Games to build original content using Unreal Engine for Fortnite. Epic, throughout the process of developing the game, has provided guidance, support, and feedback along the way, as well as technical operational resources needed to maintain the game, ones that would traditionally cost a truly commercial game a substantial amount of money to utilize.

Through the GLO project at USC Games, we will expand the portfolio of Live Ops games within GLO over time, either partnering with other IP owners like we have with Epic or creating original games that we launch as commercially-realized complete experiences. The benefits to students are obvious: real-world feedback in response to student efforts, direct experience, and the ability to earn a developer credit on a live game.

Development

Students in Glo in Spring 2025 will join a "studio," that has two functions: To maintain the games created and published by the previous class, and to develop and publish an original title. Lives Ops for the existing games will include a weekly review of:

- Gameplay stats and data
- Telemetry data
- Community Feedback
- Bugs
- User testing results
- Marketing/UA performance

The second part of class will consist of different teams developing their own original game in UEFN under the guidance of faculty.

The most important feature of this class is that it empowers students to work as a team on real-life products that a large group of consumers will engage with, execute a collaborative creative vision, work through production processes, and have fun in the process.

Functional Training/Roles

For Spring 2025 Semester, multiple students will work in these functional roles:

- Design
- Engineering (Front-End and Back-End)
- Production
- Art Direction
- Art/Animation Production
- Data Analytics

Other necessary functional areas will be supported with a mix of select students and faculty:

- Product Management/Marketing
- UI Design
- UX/Usability
- Quality Assurance

Following this launch semester, a wider variety and larger number of students will be brought in to support and practice in the following disciplines:

- Product Management/Marketing
- UI Design
- UX/Usability
- Quality Assurance
- Monetization/Game Economy Management
- Data Visualization
- Community Management
- Content Creation
- Social Media Management

This expansion will factor in collaborations with other USC schools (examples: Marshall, Annenberg, Thornton, and Roski) as well as universities and entities outside of USC as the scope continues to expand.

Functional Teams will be tasked with meeting outside of class to pursue deliverables and expected to hit targets set forth at the beginning of the semester.

Class Structure

This course is focused on Live Operations, with “Live” being the operative word. The goal of this course is to end a semester with a build in a development environment that implements new features that the team of faculty and students have vetted and developed together, polished enough and stable/bug-free enough to deploy to consumers as a game update within 3-6 months of the class/semester ending. The subsequent semester of students will be responsible for managing and tracking the implementation of the work from the prior semester of students, as well as developing new work to be implemented the *next* semester, and so on.

GLO allows students to get hands-on on a live game and credit on a game that is commercially available and continuously supported. The class will operate like a game publisher with studio elements, with oversight into the 3rd party development and engagement with all aspects of the game’s creation and deployment. The product can be used as a powerful portfolio piece for job seekers.

Focused feedback on both process and product from instructors provides a solid foundation to facilitate project-based learning. Lectures and hands-on guidance on project management, design, production, art/animation, and publishing, give students a taste of the “real world” that they’ll experience as they embark on their careers as professional game creators. Students working in specific “functional areas” will work under the guidance of instructors to practice the skills of their position and troubleshoot the inevitable problems that arise during development. The class will teach all students a better understanding of their roles on larger teams, what each individual does, and how to collaborate as part of a game development process from concept to “ship.”

Learning Objectives

- Students will:
 - recognize the fundamental elements of successfully operating multiplayer interactive entertainment that relies on Live Operations
 - understand the nature of Live Operations and be able to identify the various core functions of a live game that is continuously evolving and supported with regular events.
 - be able to break down individual responsibilities required to introduce regular events and support ongoing Operations of interactive entertainment with Live Operations.
 - Understand the necessity and utility of "Data Driven Design" informing the operation and evolution of interactive entertainment with Live Operations.
 - Learn to hypothesize successful commercial strategies to implement features and events in interactive entertainment with Live Operations and use robust data to test those hypotheses according to the scientific method.
 - Understand how to integrate scientific analysis and data-driven analysis to develop features for an ongoing, live creative endeavor by developing and maintaining Live Operations in a work of interactive entertainment.

Working Hours

The standard formula of two hours of work outside class per unit per week is the minimum expectation for hours put into an AGP project. Students are expected to perform at the high levels needed to build quality interactive experiences. Dedication to the team and its shared goals is expected.

Key Milestones and Deliverables (minimum requirements)

Pre-Mid Term Key Deliverables (approximately 4 weeks after class starts)

Live Ops for existing game: concept document for new items and new event for the published game

First Semester Mid Term

New Items and Timed Event published in Existing Game

Original Game idea:

Prototype built in UEFN

“Mini” GDD presenting concept, production plan,, and proposed live ops features

Final (week 15)

New level in Existing Game

Original game in UEFN and GDD

Prerequisite(s): ITP 180

Concurrent Enrollment: None

Course Notes: Letter Grade

Description and Assessment of Assignments

Assignments will be laid out in an [Integrated Milestone Calendar](#) which provides **general direction** on deliverables and due dates. The “Key Milestones” listed above are the priority, but other assignments are due throughout the school year. The Milestone Calendar is regularly updated, as each project has its own unique velocity and faculty will adjust dates as necessary.

IMPORTANT: the due dates for non-Key Milestone projects are not rigid or meant to be a “one-size-fits-all” process. Each project is different and has its own production flow. If teams need more time, support, and direction, they can notify the Lead Instructor(s) and appropriate Functional-Specific Faculty.

Course Schedule: A Weekly Breakdown

Precise content of class lectures and assignments subject to update, guest speaker availability, or other unforeseen circumstances. Draft subject to change based on revised course materials.

	Topics/Daily Activities	Homework Assigned	Homework Due
Week 1	<ul style="list-style-type: none"> Intro to the Course Intro to Games as a Service Intro to Live Ops Intro to UEFN Brightspace survey on Skills Assign Homework 	<ul style="list-style-type: none"> Play Fortnite, or any Fortnite-based game and make sure you have login credentials for the Epic Store and Fortnite 	Week 2
Week 2	<ul style="list-style-type: none"> Updates and Announcements Play last semester’s games, rank games, form teams Intro to Analytics Discussion of data Review last semester’s Live Ops plans Tech review: how to publish in UEFN Review Critique Process 	Carefully read the design docs assigned. Meet as a team and choose 3 things that should be done in Live Ops first, along with your reasons why. You will present your list next week.	Week 3
Week 3	<ul style="list-style-type: none"> Quiz Present homework Lecture: Intro to Economy Design Lecture: Intro to spreadsheets In-class assignment Tech talk: UEFN Registration 	<ul style="list-style-type: none"> Add new item to game in UEFN Revise last semester’s currency design 	Week 4
Week 4	<ul style="list-style-type: none"> Updates and Announcements Review Homework Lecture: Building and Managing Art Pipelines Lecture: Designing Events 	<ul style="list-style-type: none"> Event design Art Pipeline Plan Design 2 additional items for your Live Ops game 	<ul style="list-style-type: none"> Week 5: Event Design Week 6: Art Pipeline plan

	<ul style="list-style-type: none"> In-class exercise: begin to design a timed event for your Live Ops game 		<ul style="list-style-type: none"> Week 7: two additional items
Week 5	<ul style="list-style-type: none"> Review homework in breakout groups Lecture: Core loops Art Lecture: TBD Assignment: strategies to create an original game Begin to develop pitch for original game (individual assignment) 	<ul style="list-style-type: none"> Pitch for new game (individual assignment) First iteration of items and events in Live Ops game (team assignment) 	<ul style="list-style-type: none"> Pitch due week 6 (5 min max time) Live Ops items due week 7
Week 6	<ul style="list-style-type: none"> Pitch time: students pitch original games (5 min max) Lecture: mini GDD template Tech time: Adding items and events to Live Game, adding analytics In-class time: begin a UEFN prototype of original game 	<ul style="list-style-type: none"> Fill out mini GDD for original game Continue work on Live Ops items and event 	<ul style="list-style-type: none"> Mini GDDs week 7 Prototype due week 8 (midterm) Items and event in Live Ops game due week 8 (midterm)
Week 7	<ul style="list-style-type: none"> In-class tech time Live Ops Original game Tracking events 	<ul style="list-style-type: none"> Make sure tracking works for your event in your live ops game Complete items and events for midterm Complete brief version of your game idea in UEFN 	<ul style="list-style-type: none"> Live Ops Items and Event due week 8 (midterm) Original prototype due week 8 (midterm)
Week 8	<ul style="list-style-type: none"> Midterm Show Items and Live Event for Live Ops game Show Original Games in UEFN 	<ul style="list-style-type: none"> Gather data from Live Event Written Analysis of data - what does the data show 	<ul style="list-style-type: none"> Week 10

Week 9	<ul style="list-style-type: none"> • Student games selected using by student poll and faculty • New teams formed for original games • Lecture: developing levels for a Live Ops game • Begin work on original game • Breakout groups: designing a new level for Live Ops game 	<ul style="list-style-type: none"> • Begin to develop Original game in UEFN • Create Draft 1 of GDD for new game • Begin to design a new level for your Live Ops game • Visuals • New items • layout 	<ul style="list-style-type: none"> • Week 11
Week 10	SPRING BREAK - NO CLASS		
Week 11	<ul style="list-style-type: none"> • Lecture: Marketing and The Funnel • Breakout groups: review new level • Turn in your GDD 	<ul style="list-style-type: none"> • Continue your new level • Continue your original game 	<ul style="list-style-type: none"> • Week 12
Week 12	<ul style="list-style-type: none"> • Breakout groups: review original game in progress • Lecture: creating a live ops plan • In-class tech time 	<ul style="list-style-type: none"> • Create a live ops plan for your new game 	<ul style="list-style-type: none"> • Week 13
Week 13	<ul style="list-style-type: none"> • User Acquisition - Lecture • User Acquisition - Brainstorm • Review Live Ops Plans • Breakout groups: review material in progress • Tech Time 	<ul style="list-style-type: none"> • User Acquisition Concepts 	<ul style="list-style-type: none"> • Week 14
Week 14	<ul style="list-style-type: none"> • Pre-final review: • New Level • Original Game • Original Game GDD • User Acquisition concepts 	<ul style="list-style-type: none"> • Prepare Final 	<ul style="list-style-type: none"> • Week 15
Week 15	<ul style="list-style-type: none"> • Final: • Present Live Ops changes and data findings • Present original Games 	<ul style="list-style-type: none"> • Prepare Release Candidate • Deploy Release Candidate 	<ul style="list-style-type: none"> • Final Prep
EXAM	<ul style="list-style-type: none"> • <u>Final Live Ops Event</u> • <u>Final Original Game</u> • <u>RELEASE CANDIDATE DUE AND DEPLOYED TO STUDIO/LIVE</u> 		

These dates are subject to change based on individual faculty discretion

Grading Breakdown

Assignment	% of Grade	Measure
Project 1	15	Live Ops: 3 Items and an event
Project 2	15	Live Ops: New Level for existing game
Individual	20	Pitch new game idea
Functional Team Milestone Deliverable	30	Develop new game in UEFN, present at Finals
Individual	10	Homework
Individual	10	Quizzes and participation
TOTAL	100	100

Similar to a professional industry environment, performance will be measured by a mix of 1) overall project development and deliverables, 2) functional group-specific deliverables, and 3) individual contribution. Evaluation will be based on how well a project realizes the goals the team has set out for itself and the project. Ultimately, this course exists to empower students to work collectively to put an engaging, unique experience into the hands of players.

“Project 1” and “Project 2” are “Key Milestone Deliverables” as outlined in an earlier section. For each Key Milestone Deliverable, a grade will be provided to the team, and grades will be aggregated at the end of the semester to determine the Project grade, aka 50% of the individual student’s grade. Much like the professional world, the most important evaluator will be the quality of the experience you help build.

“Functional Team Milestone Deliverables” are deliverables underlined in the [Integrated Milestone Calendar](#). If there are multiple people in a functional group, they will share the same grade for these deliverables.

“Individual” sections will include the above assignments for a new game idea pitch, homework assignments, quizzes and classroom participation, and may be determined in-part by the Weekly Task Sheet that Producers are primarily responsible for filling out. The specific methodology will be outlined in the first class and the sheet is reviewed weekly.

Because of the unique needs of the project each semester, it is impossible to dictate a structure that applies to each so exactly that we have a mathematical category for attitude, help, efficacy of code, importance within the project, foresight, insight, honesty, collaborative spirit and many other amorphous qualities that are crucial to working within a team but divorced from coding. Nonetheless, those are invaluable traits that will directly contribute to the success of your project.

Important: The faculty of USC Games GLO make the final decisions regarding which features, elements, and changes are pushed “live” in the game.

Grading Scale

Course final grades will be determined using the following scale:

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

During class, each and every student will be instructed on how to, and must learn how to, push changes into the class's Unreal build. Individuals on each team must be prepared to discuss his/her work from the previous week. Some weeks, there will be presentations, which require the teams to be ready to present the game or an aspect of the game or its production process to the class and instructors.

Other assignments are the sprints teams determine for themselves, and individual faculty are responsible for assigning tasks to their student functional teams as a part of the sprint.

Team members are expected to put in time in the EGG as needed to work on their tasks for each sprint.

Team members and leaders are expected to bring the results of sprints and active development problems to the workshop meetings with instructors.

Missing an Assignment Deadline, Incompletes:

The only acceptable excuses for missing a Key Assignment deadline or taking an incomplete in the course are personal illness or a family emergency. Students must inform the instructor **before the assignment due date** and present verifiable evidence for a deadline extension to be granted. Students who wish to take incompletes must also present documentation of the problem to the instructor or student assistant before final grades are due.

For assignments turned in after the assignment deadline without prior permission from the instructor, a penalty will be imposed equal to 10% of the total available points for the assignment, for each day or part of a day that the assignment is late, up to a maximum of seven days.

Attendance Policy:

Punctual attendance at all classes is mandatory. Students arriving more than five minutes late to three classes, more than ten minutes late to a single class, or leaving early, will be marked as having an unexcused absence from class unless prior permission has been obtained from the instructor. The following guidelines are from the Interactive Media & Games Division handbook regarding absences and grading and apply to all students.

Guidelines for absences affecting grading

- Two unexcused absences: lower grade one full grade point (for example, from A to B)
- Three unexcused absences: lower grade two full grade points
- Four or more unexcused absences: request to withdraw from a course (instructor's discretion)

Excused absences are:

- Illness (with a doctor's verification)
- Family or personal emergency (with verification)

Social media, including text messaging and internet messaging, are not allowed to be used during class unless explicitly permitted by the instructor. A 0.5% grade reduction will result from each occurrence of a student being found using them.

Diversity

In making games and interactive media in a professional and ethical way, it is important that you consider diversity. When looking at your projects, you should consider who is depicted and how this work will impact others. What kinds of individuals and communities are represented in your work? What point of view does your work express? This class may assist you in learning how to make work that includes diverse viewpoints, and may discuss racial, religious, gender and sexual orientation issues in the context of games and interactive media.

Syllabus Updates:

This syllabus is subject to change up to the beginning of class and possibly over the semester. Please check the posted syllabus and [Integrated Milestone Calendar](#) regularly, and note all changes that are shared by the instructor in class.

Statement on Academic Conduct and Support Systems

Statement on Academic Conduct and Support Systems**Academic Conduct**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards*

<https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>.

Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Harassment, sexual misconduct, interpersonal violence, and stalking are not tolerated by the university. All faculty and most staff are considered Responsible Employees by the university and must forward all information they receive about these types of situations to the Title IX Coordinator.

The Title IX Coordinator is responsible for assisting students with supportive accommodations, including academic accommodations, as well as investigating these incidents if the reporting student wants an investigation.

The Title IX office is also responsible for coordinating supportive measures for transgender and nonbinary students such as faculty notifications, and more. If you need supportive accommodations, you may contact the Title IX Coordinator directly (titleix@usc.edu or 213-821-8298) without sharing any personal information with me. If you would like to speak with a confidential counselor, Relationship and Sexual Violence Prevention Services (RSVP) provides 24/7 confidential support for students (213-740-9355 (WELL); press 0 after hours).

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/departments/departments-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Disruptive Student Behavior:

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Judicial Affairs for disciplinary action.

Support Systems:

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

studenthealth.usc.edu/counseling

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

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call

suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086

eeotix.usc.edu

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

usc-advocate.symlicity.com/care_report

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.usc.edu

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) 821-4710

campussupport.usc.edu

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

diversity.usc.edu

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

dps.usc.edu, emergency.usc.edu

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) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

ombuds.usc.edu

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) 442-3340 or otfp@med.usc.edu
chan.usc.edu/otfp

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.