

IT 286: Foundations of Game Production

Spring 2025

Instructor: Erin J.K. Truesdell

Meeting Times: Tue/Thu 1:00 PM - 2:20 PM

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Office Hours: GITC 3901B by appointment (<https://bit.ly/it-286>)

Location: GITC 3200

Course Site: <https://njit.instructure.com/courses/55623>

Course Description

Prerequisites: CS 100 or CS 101 or CS 103 or CS 104 or CS 106 or CS 113 or CS 115 or BNFO 135. This class introduces students to many of the tools and design methodologies needed for electronic game production. This class will focus heavily on scripting, level design and content control as applied to game development. Students will learn an industry standard game engine and its tool chain. Students will work on projects to develop the levels, controls and scripts in order to create a new game experience with a professional game.

Learning Objectives

Students who successfully complete this course will:

- Ideate a concept for a new game and iterate on its design
- Work in a small team of 3-6 students to complete playable demos and a final game submission
- Engage in discussion and critique of other class projects from design and technical standpoints
- Demonstrate proficiency working in groups and using project management software
- Demonstrate proficiency in multiple core game engine functionalities taught in the course
- Produce a playable and well-documented game beta

Materials

There are no required textbooks for this course. Students should have access to a computer capable of running Unity Engine, preferably a laptop that may be brought to class. Students are especially encouraged to bring their devices on **demo** days to follow along. We will be using Unity 6 in class. Student teams are welcome to use other versions of Unity for their projects. Other materials used in class or by project teams may include:

- Unity Asset Store (assetstore.unity.com)
- GitHub (github.com)
- Discord (discord.com) or Slack (slack.com) for team communication
- Visual Studio (visualstudio.microsoft.com) or Visual Studio Code (code.visualstudio.com)
- Project management software, such as:
 - Jira (atlassian.com/software/jira)
 - Trello (trello.com)
 - Asana (asana.com)
 - Microsoft Planner (tasks.office.com)
 - HackNPlan (hacknplan.com)
 - Notion (<https://www.notion.so/>)

Course Schedule

Subject to change at the instructor's discretion. Any changes will be announced via Canvas.

Date	Topic	Type	Due By Class Time	PPJ
9/2/2025	Welcome/Intro	Lecture		
9/4/2025	Brainstorming & Team Formation	Lecture		
9/9/2025	Planning and managing your project	Lecture		
9/11/2025	Project pitches/critique	Presentation	Team Brainstorm Report, Contract Drafts, Project Pitch Slides	1
9/16/2025	Team meetings with Dr. Truesdell	Meetings		
9/18/2025	Github and Unity	Lecture		
9/23/2025	Unity Demo I	Demo	Final Project Contracts	
9/25/2025	Communication & Time Management	Lecture		2
9/30/2025	Unity Demo II	Demo		
10/2/2025	Wellness Day - PPJ Still Due	No Class		3
10/7/2025	Unity Demo III	Demo		
10/9/2025	Unity Demo IV	Demo		4
10/14/2025	Studio Time	Studio		
10/16/2025	Playtesting	Lecture	Personal Milestone 1	5
10/21/2025	Studio Time	Studio		
10/23/2025	Team check-ins with Dr. Truesdell	Virtual Meetings		6
10/28/2025	Alpha Build Presentations	Presentation	Alpha Build	
10/30/2025	Unity Demo V	Demo		7
11/4/2025	Game Pipelines & Ethics	Lecture	Playtest Report 1	
11/6/2025	Studio Time	Studio		8
11/11/2025	Team check-ins with Dr. Truesdell	Virtual Meetings	Personal Milestone 2	
11/13/2025	Presenting Your Game	Lecture		9

11/18/2025	Studio Time	Studio		
11/20/2025	Beta build presentations	Presentation	Beta Build	10
11/25/2025	Studio Time/TBD	Studio		
12/2/2025	Unity Demo VI/TBD	Lecture/Demo	Playtest Report 2	
12/4/2025	Building & Polish	Lecture		11
12/9/2025	Studio time/TBD	Lecture/Studio	Personal Milestone 3	
12/11/2025	Studio Time	Studio		
TBD	Final Showcase	Presentation	All Final Submission Materials	Final

Requirements and Grading

Assessment	Percent of final grade
Contracts, Brainstorm Report, & Pitch	10%
PPJs	15%
Personal Milestones (3)	20%
Playtest Reports (2)	5%
Alpha Build/Presentation/Critique	15%
Beta Build/Presentation/Critique	15%
Final Submission Build/Presentation/Critique	20%
Total	100%

Grading Scale

Percentage Points	Letter Grade
90.0-100%	A
87.0-89.99%	B+
80.0-86.99%	B
77.0-79.99%	C+
70.0-76.99%	C
64.0-69.99%	D
<64.0%	F

Course Policies

- **Authorship Policy:** Students are expected to indicate the source and authorship of any work not original to them, including copyrighted work or work of classmates, friends, outside collaborators, or other practitioners.
- **Attendance Policy:** Attendance is graded on all **presentation** days. Absence or tardiness on these days will be reflected in the presentation grade.
- **Contract Adjustment Policy:** **Contract adjustments are typically not permitted.** I work with each student to ensure their goals are reasonably scoped before the final contract is submitted. Extenuating circumstances, such as a teammate withdrawing from the class late in the term or the process described in the Missing Teammate Policy, may be considered exceptions to this rule and will be evaluated on a case-by-case basis.
- **Missing Teammate Policy:** If a team member drops or withdraws from the course, or otherwise becomes unavailable or demonstrates no progress towards the team project, there is a process by which the team may eject the member and revise their contract. Team members must first contact Dr. Truesdell with documentation of lack of communication/progress and schedule a full team meeting with Dr. Truesdell to discuss time-bound improvement/communication goals for the team member in question. If the absent team member is absent for the meeting, or subsequently fails to reach the stated goals (documentation is required here as well), Dr. Truesdell may, at her discretion, allow for the ejection of the absent teammate and revision of team contract.
- **Assignment Extension Policy:** Assignment extensions are considered on a case-by-case basis. Extensions relating to sickness or bereavement should be accompanied by a notice of absence from the office of the Dean of Students. Extensions for other reasons, such as hackathon participation or graduate school visits, may be considered. Students should make a written request for an extension via email no later than three days before the event, and may be asked to provide supporting documentation (such as a screenshot of an itinerary or a selfie with a hackathon team - in general, I want to support your successes and this also lets me cheer you on!).
- **Late Work Policy: Work is due at class time on the due date.** Work submitted late will receive a 10-point deduction for each day it is late. Late work will be given a 0 after 10 days. Work not submitted 24 hours before course grades are due will be given a 0. Each student may submit **one** PPJ up to 24 hours late with no penalty.
- **Assignment Resubmissions:** Assignments may be resubmitted any number of times before the due date; the latest submission will be the version that is graded. All assignments may be resubmitted after the due date for a late assignment grade, assigned in accordance with the Late Work Policy. After grading of the resubmission, the student's final grade on the assignment will be whichever grade (the original submission or the reduced late grade) is higher.
- **Email Policy:** All emails related to the course should include the course number in the subject line and detail any steps you have already taken to resolve the problem you are emailing about.
- **Office Hours:** My office hours are available via Calendly at the link at the top of the syllabus. I encourage you to schedule a time to come by if you have questions, are struggling with anything,

or just want to chat about making games! If none of the posted times work for you but you'd still like to chat, please email me and we can coordinate a time to sit down and talk.

- **No Show Policy:** When you schedule office hours with me, I adjust my schedule to make sure I give you the time and attention you need. If you cannot make it to a scheduled office hours meeting, please *let me know at least two hours before your scheduled meeting with me*. No-shows without warning, after the first, will result in a *one point deduction from your final grade*.
- **Technology Policy:** You are encouraged to bring a device to class and use it to interact with and supplement class activities and lectures. You are expected not to use technology in a way that is disruptive to other students' learning and the overall classroom environment.
- **Courtesy & Professionalism:** Students are expected to conduct themselves professionally during all interactions related to the course. This includes in-class group work and critiques, email and Canvas communications, and interactions with classmates and the instructor. There is zero tolerance for discrimination or harassment on any basis, including but not limited to race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. Violation of any of these expectations will result in appropriate penalties, including but not limited to reduction of grade, rescinding of lab access, or disciplinary action.
- **Use of Generative AI:** The use of generative AI on course assignments, both written and coded, is permitted, but the use of generative AI tools *must be cited* as shown within the [NIIT Library AI citation page for AI](#). Additionally, students should make clear (1) which portions of work include content from generative AI and (2) the name of the tool and the nature of the use of the generative AI tool (e.g., editing, code generation, etc.). Students are ultimately responsible for all work submitted as part of the course and must be able to explain how their code contributions work if asked, regardless of whether it was produced by the student or by generative AI. If you have any questions or concerns about AI technology use in this class, please reach out to me.
- **Grade Appeal:** Grade appeals for course assignments may be submitted within 5 days of when an assignment is graded and at least 24 hours before course grades are due. Appeals must use the [Grade Appeal Form](#). All final grading decisions are made by Dr. Truesdell. Grade appeals submitted after 5 days, or within 24 hours of the course grade deadline, will not be considered.
- **Rounding Up:** Many course assignment grades are rounded to the higher whole point. For this reason, final grade percentages are not rounded up.
- **Assignment Formatting/Readability Policy:** Students are responsible for ensuring their assignment submissions include all required parts and are readable in downloaded form. This includes making sure PDFs upload correctly, videos are provided in a playable format, files are uncorrupted, and ALL Unity build files are included in submitted .zips. If I cannot open the file or run your game, I cannot evaluate it and the submission will receive a zero. If a corrected file is uploaded, it will be graded in accordance with the late work policy.

Statement on Equity and Inclusion

It is my intention that this classroom is a safe, welcoming, and educational space for all students in the course, and I strive to implement class policies and practices that support this goal. To this end, I uphold a zero tolerance policy for discrimination or harassment on any basis, including but not limited to race,

color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We may also cover topics such as equity and ethics in game-making practices during class; as game developers, we have the opportunity to create new things that can improve the world or even just make it a little more playful. This means we have a responsibility to uphold strong ethical principles in not only what we make, but in how we make it. Respect for your teammates and classmates is *imperative* in this process, and I expect all of you to strive to help your classroom community in this way.

Commitment to equity and inclusion is a commitment to humility and a constant process of listening and improvement. If you have something you'd like to discuss with me (whether this be class content, team conversations, or something else) that can help me best support the identities of all class members, please do reach out via email or in office hours (All conversations will be kept confidential to the best of my ability). Ongoing conversations and learning will help all of us, and future students, feel welcome and encouraged in the classroom and team project setting.

Information for Students with Disabilities

Students with disabilities who require course accommodations or who wish to seek support may contact the Office of Accessibility Resources and Services (OARS). More information is available at <https://www.njit.edu/accessibility/>

Writing and Speaking Support

Students who wish to seek support and programming for writing and speaking skills are able to take advantage of resources available through the NJIT Writing Center. More information is available at <https://www.njit.edu/writingcenter/>.

Academic Integrity Statement

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: [NJIT Academic Integrity Code](#).

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu

CREDIT WHERE CREDIT IS DUE: Many of the policies in this syllabus have been adapted from Dr. Anne Sullivan's policies for her courses.