

**NEW YORK UNIVERSITY — TISCH SCHOOL OF THE ARTS**

# **GAME STUDIO II**

**GAMES-GT 121-001**

**SPRING 2019**

## **COURSE SYLLABUS**

Professor: Robert Yang ([ry14@nyu.edu](mailto:ry14@nyu.edu))  
2 Metrotech Center, Room 820 TuTh 2:30-5:15

### **Course Description**

In Game Studio 2, students will work in small teams to create a single digital game. Over the course of the semester, students will brainstorm, research, design, and develop a number of prototypes that culminate in a single digital game. The philosophy of the course is learning through doing, and the majority of student work time will be spent in actual design and production, which will be structured and guided by the instructors. This production time will be supplemented by in-class exercises, readings and discussion, and visits from professional game developers. At the end of the semester, each group will have produced a playable digital game.

### **Course Objectives**

At the completion of this course, the student will be able to:

1. Practice the fundamentally integrated technical processes of digital game development, by rolling together elements of visual art and design, sound design, systems design, interaction design and code, into a single digital game project.
2. Learn to implement game assets and code in an established digital game engine (Unity).
3. Identify major principles of implementation-level game design, and learn the 'tricks of the trade' that serve to engage a user and provide subconscious-level enjoyment of a game.
4. Analyze and articulate strengths and weaknesses in the student's and classmates' work.
5. Present their work to a group, highlighting its functionality and strengths.
6. Work within a team structure, with each student playing a different role within the team.
7. Understand and apply a production process such as 'scrum' in the context of a team project.

## Course Format

The course meets twice per week. The lecture meeting on Tuesdays will be used for weekly progress reports, critique, greenlight presentations, and in-class lessons. The Thursday labs will be focused on group work time, with assistance from faculty and TAs. Students should expect to put in at least 10 hours per week outside of these two class meetings.

One **important** requirement in this class is that every Tuesday the team should bring a game or prototype in working, interactive form. To get the most out of this class, it is vital that your game can consistently be interacted with by classmates and faculty.

## Prerequisites

Games-GT 120-001 - Game Studio I

## Credits Allocated

4 Credits

## Grading

Game Studio 2 uses a production process based on a gated 'greenlight' system, where teams' progress must be approved before they can progress to the next phase. The approval process involves a formal presentation of progress and documentation to the faculty and class.

Presentations:

- Game seeds / Prototype greenlight
- Prototype presentation / Proof-of-concept greenlight
- Proof-of-concept presentation / Pre-production greenlight
- Pre-production presentation / Production greenlight
- Final project presentation, due in the lecture class of week 14, May 2018

Greenlight presentations are pass/fail requirements, where passing allows the team to progress to the next stage of production. The greenlight decision will be made on the basis of:

- Documentation (requirements differ per phase)
- Milestone requirements (requirements differ per phase)

In the event that a presentation and the relevant deliverables are **not** greenlit, the team will continue to work on that phase until they are greenlit for the next phase.

Whether or not the team reaches the final phase of production before the end of semester, they will present their game for critique in the final class as a final presentation. At this stage, games are graded on the following:

- **Functionality.** Has the team made a playable game that runs with no obvious bugs or game-breaking flaws?
- **Creativity.** Does the project show innovation and uniqueness? Does it show a creative imagination that does not solve the given design problem in an ordinary way?
- **Scope.** Did the team constrain the limits of the project in such a way that it can be considered 'finished'?
- **Communication.** Does the audio/visual design convey the rules of play and the state of the game to the player?
- **Polish.** Does the game show attention to detail in eliminating audiovisual flaws, areas of confusion for the player, and a general sense of being 'finished'.
- **Usability.** Does the game communicate its rules and procedures clearly to the player? Is it relatively painless and enjoyable to begin the game and to learn how to play it?

In addition, students are graded on participation in class critique sessions, and on their peer-grades and feedback.

## Grade calculation

Students will be given grades based on a 100-point scale. Each assignment will be graded on a point scale, and these points will be added up to determine the final grade, according to the following:

92-100	A
90-91	A-
88-89	B+
82-87	B
etc.	

The following are the components of the grade:

Prototype greenlight	15 (Pass/Fail)
Proof-of-concept greenlight	15 (Pass/Fail)
Pre-production greenlight	15 (Pass/Fail)
Production greenlight	15 (Pass/Fail)
Final game	20
Participation	10
Peer grades	10
<b>TOTAL</b>	<b>100</b>

## Assignment Requirements

Final game projects and greenlight milestones will be assessed when they are presented orally in class. Any documentation deliverables must also be emailed to the faculty. In addition to the oral presentation of the game to the class, the final project must be submitted with the following materials:

- A working executable version of your game, for Windows or Mac.
- 3 x screenshots
- A one-page document detailing your game description and play instructions.
- A statement of self-evaluation on the game's merit.

**Attendance:** Attendance and arriving on time to all class sessions is required and expected, too many unexcused absences will lower your final grade. Three unexcused absences lower your final grade by a letter. Each subsequent unexcused absence will lower another letter grade. Two tardies will count as one absence. Arriving more than 15 minutes late will also count as an absence. If you will be missing a class due to illness, or unavoidable personal circumstances, you must notify your professor in advance via email for the absence to be eligible to be excused.

**Late policy:** projects submitted after the due date will be graded **zero** unless permission to submit late is sought from the professor in advance.

## Statement Of Academic Integrity:

Plagiarism is presenting someone else's work as though it were your own. More specifically, plagiarism is to present as your own: A sequence of words quoted without quotation marks from another writer or a paraphrased passage from another writer's work or facts, ideas or images composed by someone else.

## Accessibility

Academic accommodations are available for students with documented disabilities. Please contact the Moses Center for Students with Disabilities at 212 998-4980 for further information.

## Title IX

Tisch School of the Arts is dedicated to providing its students with a learning environment that is rigorous, respectful, supportive and nurturing so that they can engage in the free exchange of ideas and commit themselves fully to the study of their discipline. To that end Tisch is committed to enforcing University policies prohibiting all forms of sexual misconduct as well as discrimination on the basis of sex and gender. Detailed information regarding these policies and the resources that are available to students through the Title IX office can be found by using the this link.

## **The Studio 2 Process**

### **Mission**

The goal of Studio 2 is the generation, validation and early development of entirely new game concepts, from earliest ideation to through the start of Production. Phases will always be kept lean and focused in order to allow innovative new concepts to flourish or fail quickly.

The class emphasizes teamwork and group management skills, but it also aims to give students experience with a flexible process that has a good chance of developing original and successful designs, rather than locking teams into an unproven design and forcing them to iterate on it. The process places a high value on feedback opportunities, be they inter-team, intra-team, player, & faculty feedback.

While the process includes the generation of documentation & presentations, there is no expectation that either be aesthetically polished.

### **Process Overview**

Development will start with the formation of self-sufficient teams on the basis of high-level Creative Concepts/Challenges. Teams will then narrow down these concepts to a specific 'Game Seed' — a concrete idea for a game — and then build out playable prototypes (called 'Explorations') that express this core idea. Explorations may use any technology available, from the prototyping cart to full-fledged game engines, but are required to be interactive and demonstrate a complete, self-contained mechanic or interactive idea.

These Explorations are reviewed and guided by the Faculty, with input and feedback from classmates. When an Exploration shows promise, the team can propose and build a Proof of Concept, a playable game that integrates the ideas from the prototypes to see if they are worth pursuing. If the Proof of Concept shows promise, the team can begin pre-production, and finally full production, to turn the prototype into a full game loop.

By the end of the semester, the process may end with a 'vertical slice' of a finished game, that can be developed further into alpha, beta and release phases at a later time.

At the end of each phase, the team must be 'greenlit' by faculty to proceed to the next phase. The requirements for being greenlit will be clearly set out in guidelines for each phase, but can include playable game builds or documentation. If the deliverables are not sufficiently developed in the greenlight presentation, the team will be asked to work on them more before advancing to the next phase.

## Process Phases

At the beginning of each phase, the team will be provided with a document that gives a detailed overview of the process for that phase and the deliverables required at the end of it. What follows is a high-level overview of the process phases.

### Start-Up – “Form a team” (1 week)

- **Phase 1: Team Formation:** Students self-assemble into self-sufficient teams around shared ideas and passions and choose their Creative Challenge. Each team will choose a Team Leader for the Ideation & Exploration phases. It will be the Team Leader’s job to ensure the project stays on schedule during these phases, in addition to owning and delivering the presentations necessary to complete each phase.

### Ideation - “Generate an inspiring, novel idea or prompt” (Typically 1 week)

- **Phase 2: Ideation—Game Seeds:** Each team spends a short period of focused brainstorming to generate a variety of basic Game Seeds that meet their Creative Challenge. Game seeds are small ideas that contain the basis of an original game, but they do not need to have details such as story, mechanics or aesthetics worked out.
- **Phase 3: Ideation – Prototypes:** Upon selecting a single Game Seed, the team spends a short period of focused ideation generating ideas for at least two interactive, exploratory prototypes (‘explorations’) for that Seed.

### Exploration – “Express facets of the idea through multiple prototypes” (Typically 2-3 weeks)

- **Phase 4: Exploration (Multiple):** The team works to build their explorations, typically one per week. Each of these should demonstrate a complete, self-contained mechanic or interactive idea. Depending on the results at the end, they may refine it, take on a new exploratory prototype or go back to Phase 2 or 3 if the prototypes do not seem promising.
- **Phase 5: Exploration Exit:** When an exploratory prototype is judged to have sufficient promise, the Team presents their Exploration prototypes and a plan for developing their prototype into a full game loop as a Proof of Concept (POC). At this point a new Team Leader is nominated to own the POC phase.

### Proof of Concept – “Prove that the selected prototype scales to a game” (Typically 2 weeks)

- **Phase 6: Proof of Concept Greenlight:** The Proof of Concept Team Leader & the Ideation/Exploration Team Leader present the POC. plan.

- **Phase 7: Proof of Concept:** The team builds their proposed Proof of Concept, making necessary adjustments along the way.
- **Phase 8: Proof of Concept Exit:** When the Proof of Concept period is complete, the POC Team Leader develops a Preproduction Plan for presentation to the Faculty. This will include production planning, a high level game design, identification of key challenges for pre-production, and a perspective on the target audience or context for the game. If the project requires a redirection or extension of POC, the team prepares a proposal for this instead. A new team leader is chosen for the Preproduction phase.

Preproduction – “Describe the vision for the game, and build a plan that you believe in”  
(Typically 1-2 weeks)

- **Phase 9: Preproduction:** Once Preproduction begins, the team is responsible for structuring their work, in keeping with the schedule they presented in Phase 9.
- **Phase 10: Production Greenlight:** Similar to the Preproduction Greenlight, the team presents a detailed plan that details the game’s core vision, scope, art style, audio style, narrative context, technical design, and any other relevant aspects of development. These form the basis of a backlog, which will guide the team’s work in the Production Phase. A new team leader is chosen for the Production Phase.

Production – “Build the Game” (Remaining time in semester)

- **Phase 11: Production:** The team is entirely responsible for structuring their Production Phase.

Not Covered In This Class: the other 95% of making a game

Alpha – “Polish, tune, test, & optimize”

Beta – “Debug & ensure release readiness”

Certification/Release

Patching/Updating

## Class Schedule

In Game Studio II we will be employing a flexible production process which allows some variation in the amount of time taken for each milestone. Teams only progress to the next phase of the process when they are 'greenlit' by the faculty. For this reason, the project schedule is not fixed, except for the first two weeks and the final week.

Throughout the semester, we will run technical skills lessons and primers. These will be held during lecture time, usually for about an hour -- as graduate students, I am trusting you with privilege: you choose whether to attend these lessons. These optional lessons are highlighted.

Week	Date (Tues)	Notes
1	1/29/2018	<b>Intro class - Team Formation &amp; Creative Challenges</b>
2	2/5/2018	<b>Present Game Seeds - Group Management Patterns</b> - Unity code basics
3	2/12/2018	<b>Git and Version Control review via SourceTree</b>
4	2/19/2018	Narrative framework and systems primer (Twine, Yarn, Ink)
5	2/26/2018	<b>(Typical schedule) Present Prototypes / POC greenlight</b>
6	3/5/2018	3D asset and Maya primer
7	3/12/2018	<b>(Typical schedule) Present POC / Pre-production greenlight</b>
	3/19/2018	<b>Spring break / GDC</b> [No Class]
8	3/26/2018	Code lesson: procedural generation basics
9	4/2/2018	<b>(Typical schedule) Present Pre-production / Production greenlight</b>
10	4/9/2018	<b>(Work time)</b> [Tues/Thurs: Robert away for EU festivals]
11	4/16/2018	Code lesson: procedural maze generation
12	4/23/2018	Unity Mecanim animation basics [Thurs: Robert away at AAA conference]
13	4/30/2018	Code lesson: game feel and coroutines
14	5/7/2018	<b>Final Presentations</b>
	5/?/2018	<b>Student show</b>