

## INTRO TO GAME DEVELOPMENT (GAMES-UT 120-001)

SUMMER 2016

### GAME DEVELOPMENT: PROJECT STUDIO (GAMES-GT 2612-002)

INSTRUCTOR: Robert Yang <[ry14@nyu.edu](mailto:ry14@nyu.edu)>, office hours by appointment

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MonWeds 12:00-4:30 PM

2 Metrotech (MAGNET) ROOM 825

Introduction to Game Development is a practical course that introduces students to the methods, tools and principles used in developing digital games. Over the course of the semester, students will work alone to create a two digital prototypes or 'sketches', before building on them to produce a final polished game, using the lessons learned in the earlier prototypes. This is a hands-on, primarily lab-based course, and so the focus is on learning-by-doing rather than on reading and discussion.

### OBJECTIVES:

1. Practice integrated technical processes of digital game development; roll together visual art and design, sound design, systems design, interaction design and code.
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 work to a group, highlighting its functionality and strengths.
6. Develop a personal creative process, translate ideas into the form of a digital game.

### MAIN COURSE TOOLS: *(all software is provided / or has free student versions)*

(1) A laptop. (2) Unity, free version. (3) Adobe Photoshop (CS6+) (4) SourceTree.

### ATTENDANCE: 3+ unexcused absences lowers grade, **e-mail me before class to be excused**

2 tardies = 1 absence 15+ min late = 1 tardy

### CLASS WEBSITE: [github.com/radiatoryang/summer2016\\_gamedev](https://github.com/radiatoryang/summer2016_gamedev)

To turn-in homework, click "Wiki" in the navigation bar, and follow instructions.

### WEEKLY ASSIGNMENTS:

- All interactive assignments must be uploaded as a Unity WebGL + Git repo, and linked on the class wiki in the correct section BEFORE CLASS.
- Weekly journal responses to a prompt on the Github wiki.

### MIDTERM PROJECT: INDIVIDUAL

Work individually to build a small singleplayer game with a secret technical constraint.

- you MUST upload the project folder to a public GitHub repository

### FINAL PROJECT: GROUP

Work in groups of 4 to build a small game with a secret theme.

- you MUST upload the project folder to a public GitHub repository
- you MUST release your playable game to the public in some form
- you MUST have a 1 paragraph blurb, 3 screenshots, etc. on a webpage
- you MUST \*EACH\* complete at least one CODE task, ASSET task, and DESIGN task

SCHEDULE (subject to change)

**7/06 WEEK 1: introductions, what is game dev, editor interface, exporting, prototyping**

Homework: read "The Door Problem" by Liz England; build a simple platforming level; install SourceTree, install Photoshop

**7/11 WEEK 2A: intro to code, variables, if / else, basic Unity UI, and source control**

Homework: do code worksheets, build a text adventure world

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**7/13 WEEK 2B: intro to vector math, inputs, physics... intro to Photoshop**

Homework: do vector worksheets, treasure hunt game

**7/18 WEEK 3A: triggers, scripting game logic, instantiation, for/while loops**

**!!! BEGIN MIDTERM PROJECTS !!!**

Homework: work on your midterm, bring a prototype ready to show to your partner

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**7/20 WEEK 3B: playtest, adding and controlling game sounds**

Homework: finish your midterm project

**7/25 WEEK 4A: raycasting, making a simple platformer controller from scratch**

**!!! PRESENT MIDTERM PROJECTS !!!**

Homework: read "What do Prototypes Prototype", do assigned research, finish platformer

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**7/27 WEEK 4B: group collaboration, painting in Photoshop**

**!!! BEGIN FINAL PROJECT !!!**

Homework: make a system prototype

**8/01 WEEK 5A: intro to game feel and coroutines, playing with particles**

Homework: make an integrated prototype as a group

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**8/03 WEEK 5B: playtest, workshop, code review, animating 2D stuff inside Unity**

Homework: work on your final project

**8/08 WEEK 6A: playtest, workshop, you should probably be panicking right now**

Homework: work on your final project

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**8/10 WEEK 6B: debrief, future directions !!! PRESENT FINAL PROJECT !!!**

Homework: finish and submit your final project deliverable before August 14

## ASSESSMENT

Students will be graded primarily on demonstrated process and technique. 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:

98-100 A+    92-97 A    90-91 A-    88-89 B+ 82-87 B etc.

The following are the components of the grade:

Attendance & participation 25

Homework 25

Midterm 15

Final 35

TOTAL = 100

## Attendance & Participation

The attendance and participation portion of your grade is based on the following:

- Attending and arriving on time to all class sessions is required and expected. This includes all labs, recitations, and critiques. 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 excused. Unexcused absences and being late to class 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 unexcused absence. Arriving more than 15 minutes late to class will also count as an unexcused absence.
- Participation in group discussions and critiques
- Peer grades and participation in writing group evaluations

## 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.

### Statement of Principle

The core of the educational experience at the Tisch School of the Arts is the creation of original academic and artistic work by students for the critical review of faculty members. It is therefore of the utmost importance that students at all times provide their instructors with an accurate sense of their current abilities and knowledge in order to receive appropriate constructive criticism and advice. Any attempt to evade that essential, transparent transaction between instructor and student through plagiarism or cheating is educationally self-defeating and a grave violation of Tisch School of the Arts community standards. For all the details on plagiarism, please refer to page 10 of the Tisch School of the Arts, Policies and Procedures Handbook 2013-2014, which can be found online at: <http://students.tisch.nyu.edu/page/home.html>

## 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.

New York University  
Tisch School of the Arts  
Course Syllabus  
Office of Special Programs