

# Digital Interactive Experience

## Lecture 1

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# What is a Game?

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~~Game Theory is a game...~~?

# What is a Game?

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GTA is a game;

~~ON~~UNO is a game;

~~Game Theory is a game...?~~

~~Genshin Impact is a game!~~



# What is a Game?

Of course, there won't be any elements of narrative meta-storytelling involved here related to “what is a game”.

An electronic game consists of three primary components: programming, design and art.

# Course Schedule

Lecture 1: Introduction, Misc., PyGame, Scene I, Character I (Player Basics)

Lecture 2: OOP, Game Development I, Scene II

Lecture 3: Character II (Player, NPC), Interaction, UI

Lecture 4: Turn-based Combat System, Other Mechanics

# Course Schedule

Lecture 5: Character III (Resources), Scene III, Game Development II

Lecture 6: Gameplay, Art, TBA

Lecture 7: TBA

Lecture 8: (Selected) Demo Presentation?

# Found Some Problem?

A game consists of three primary components: programming, design and art.

**There is NO design requirement in this project.**

# Grading for Basics

This part is consist of 5 sections: Scenes (20%), Characters (20%), Mechanics (20%), Gameplay (10%) and Code (10%).

# Grading for Creativity

This is not a game design project. It's also challenging to incorporate extensive game design into this project. Therefore, what we would prefer to see is your ability to create an excellent game through **programming**.

## Grading for Creativity

In this project, to achieve a higher score, you can implement more detailed combat systems, create richer map content, and enhance the overall interactive experience, etc.

**You DON'T need to** focus on outstanding gameplay design, write deeply engaging storylines, or prioritize 'fun' above all else. While these aspects are certainly important in games, you may soon realize that game development is inherently *painful*. Allocating the enormous effort required to achieve these aspects in a game might leave you with insufficient time for programming.

# Not Just The Game

In addition to the game itself, you are also required to provide development documentation to explain your design. We will conduct regular checks on your development progress, and the specific details will be explained later.



# Git

<https://msyamkumar.com/cs320/s23/lec/02-repro2/slides.pdf>

<https://msyamkumar.com/cs320/s23/lec/03-repro3/slides.pdf>

# Code Style

Next, you are about to embark on a collaborative project involving three team members. Therefore, ensuring that your code is readable and understandable by your teammates is crucial.

Comments are VERY useful.

# Intro to PyGame

(~~Powered by GPT~~) Pygame is a cross-platform set of Python modules designed for writing 2D games. It is built on top of the Simple DirectMedia Layer (SDL) and provides modules for handling graphics, sound, events, and more. Pygame makes it relatively easy for developers to create simple games, simulators, and other graphical applications.



# Show Me The Code

# A Very Simple Map

Today our goal is simply to give your game the appearance of having a background. Therefore, we have provided you with an image. You just need to load it into your game.

# Player.png

Today our goal is simply to give your game the appearance of having a character. Therefore, we have provided you with an image. You just need to load it into your game.

# Move the Player.png

However, we may have a slightly additional requirement for it. You also need to learn how to manipulate your character.