

## **Design and Code Programs**

| LEARNING GOAL & SCALE: Standard |  |
|---------------------------------|--|
| 4                               | Student will be successful in level 3 and: Create a gaming using high-level functions and add additional features that were not provided through the tutorial they chose. Using the mini-tutorials or even more so through their own creation.   |
| 3                               | <ul> <li>Student will:</li> <li>Plan Program Design &amp; Code Programs (standards 42.0 &amp; 43.0)</li> <li>✓ Examine existing software and choose appropriate tool to use (Unity or Unreal)</li> <li>✓ Prepare proper layout specifications (2D, 3D, Mobile, etc.)</li> <li>✓ Utilize reference manuals (Udemy, tutorials, forums, etc.)</li> <li>✓ Code routines, write programs &amp; event-driven programs, logical statements, &amp; score keeping.</li> <li>✓ Implement enhanced program structures- help text &amp; goals. (standard 47.0). Code, test, &amp; debug throughout (standard 44)</li> <li>✓ Create a maintain documentation/source code (standard 45)</li> </ul> |
| 2                               | Student will:  Define: layout, event-driven, code, if-statement and array.  Know which game engine you want to learn (C#- Unity or C++ Unreal)   |
| 1                               | With help from the teacher, the student has partial success with the current content.  |

**Work Scenario:** Since you've learned the basics of programming the gaming company you are interning at wants you to develop a basic game. They are giving you free-reign to in terms of genre. The game must demonstrate your coding abilities.

Learning Target: Plan a game design & build that game using C# in Unity. Game must include score keeping, if-then statements, basic menu with start button, help text/instructions, goal/victory condition & one timed-event.



\*\*As you do these tutorials I want you to keep track of your source code (put in Notepad, keep track of which object you put in, etc.).\*\*

See the below for some ideas- I encourage you to start to create builds on your own as well using individual videos or Unity manual when you get stuck!

Brackey's Playlists

<u>Jimmy Vegas Playlists</u>

<u>GameDev.tv</u>

Unity Learn (individual additions you can add to a game)

Other options: Not all will meet the requirements so you will have to do some coding on your own. Requirements that must be met include: score keeping, ifthen statements, basic menu with start button, help text/instructions, goal/victory condition & one timed-event.

**Block Breaker** 

Mini Golf Game

2D Platformer

2D Castle Defense

**Survival Horror** 

Racing

Battle Royale

Base Building Game

Hex-Based - Mostly Civilized

Gorf

Resident Evil Clone

Retro FPS

Simple App

Massive 2D RPG - 179 videos

2D Platformer Unity 2020

**Endless Runner**