2013 SI@UCF Game Design with Unity

Course Description: This course assumes a descent grip of programming with the Java programming language. The main goal of the class is to build a simple game using the Unity game engine and the C# language. During the course of the camp use of the Unity engine as well as game design principles will be taught. Students will be asked to use Unity to build a simple game. All of the programming done in Unity will be done in C#. By the end of the program students should feel comfortable designing and implementing games in the Unity engine.

Textbook: No text books will be required and any notes will be posted online.

Grading: This class is focusing on the creation of a game in the Unity engine and as such the grading will be focused entirely on the projects and homework assignments.

Week one homework assignment: 30%

Final Project: 70%

Class Schedule

Day	Lecture Topic	Assignment
7/8	Principles of Game Design	Get comfortable with Unity
7/9	Basic Vector Mathematics and Physics	
7/10	Introduction to Unity	Build a simple world in Unity
7/11	Building a world in Unity / Discussion of 3D models	
7/12	C# scripting and attachment to Objects	
7/15	Movement of Game Objects through scripts	Create idea for game project to be done for the rest of the class & start working on project
7/16	Collision detection and Object Destruction	
7/17	Lerp and other useful Unity features	
7/18	Discussion and help with Project	
7/19	Generation of other Game Objects through script	
7/22	Basic AI concepts for enemies	Implement a simple AI for the game
7/23	Audio and Music in Unity	Make a sound track play while in game. Add sound effects to some objects.
7/24	Accessing other components of objects inside of a script	
7/25	Discussion and help with Project	
7/26	Present Project	