Fairfax Collegiate

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Kodu Programming 3-4 Syllabus

Course Goals

1 Introduction to Game Programming
Students learn basic concepts of game programming using Kodu Game Lab, a software tool for creating 3D games. They use the various world building tools Kodu offers to create their own unique scenarios and games.

Course Topics

1 Kodu Objects
Students are introduced to the Kodu Game Lab environment and learn how to populate their game worlds with different types of objects. Students begin by doing this using Kodu's World Editor software, but later learn to do it programmatically.

2 World Design
Students learn how to create and modify the terrain and layout of their game worlds using Kodu's World Editor capabilities.

3 Event-Based Programming
Students learn to control the objects and characters in their games through "When-Do" events. All interactions in Kodu are handled with these events, and students use them to create all of the logic in their games.

4 Object Interactions
Students modify their objects to be able to interact with one another and their surroundings. Characters in their games are able to hear and see other actors, and then do thing such as move towards them and give them gifts.

5 Paths
Students create paths for their actors to move on, allowing them to assign certain objects to move along more complicated terrain.

6 User Input
Students take control of the characters in their games using either a keyboard and mouse, or an Xbox 360 controller.

Course Schedule

Day 1
Introduction
Students introduce themselves and receive an overview of the course.

Tutorials

Students participate in tutorials of Kodu so they can learn how to utilize what it can offer.

Day 2
Terrain
Students learn how to create various settings and environments within Kodu.

First Game
Students create their first fully functional game using the skills they have learned.

Day 3
Kodu's Capabilities
Students complete tutorials to explore the other actions that can occur in the games they make with Kodu.

Mini-Project
Time permitting, students create an additional game using the skills they have just learned.

Day 4
Final Tutorials
Students begin the last tutorials for Kodu so they can create more complex games.

Day 5
Completion of Preparation
Students finish the Kodu tutorials and become ready to program their own longer games.

Day 6
Freeplay
Students create two games to increase their familiarity with how they are designed.

Day 7
Eat the Green Apples
Students create an additional game to explore what they can do in Kodu.

Minigames
Students create a minigame including elements that will be needed for their final projects.

Day 8
Final Project
Students begin to create their final game with a partner.

Day 9

Final Project Completion

Students complete their final games so they can be played the following day.

Day 10

Conclusion

Students play each other's games that they have created.

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