Curriculum Outline: Creating and Publishing Games in Roblox

The curriculum has 8 units, each unit is 2 hours. The instructor teaches for 1 hour and students get 1 hour to complete a challenge.

Objectives: at the end of this course
- Students will know what programming or coding is and why it's important
- Students will know how science and math are used in programming
- Students will be able to design and code 3D games in roblox studio environment
- Students will be able to apply problem solving and critical thinking to find solutions for game design and coding challenges

Unit 1: Introduction to 3D Game Design and Concepts
Concepts: Introduction to 3D game design concepts and roblox studio
Activities: Create the first roblox game (Laser Tunnel Game)

Unit 2: Basic Coding concepts
Concepts: Introduction to coding concepts and syntax in Lua language
Activities: Improving the Laser Tunnel game with Lua code

Unit 3: Publishing Roblox Games
Concepts: Introduction to publishing roblox games to roblox.com online platform
Activities: setup a roblox game for publishing in roblox studio and publish it

Unit 4: Designing Maze Games
Concepts: designing and modify parts for maze walls and paths
Activity: Creating a 3D maze in roblox studio

Unit 5: Advanced Maze Games
Concepts: improving the look and the design of the maze with customized styles
Activity: change the maze to look different based on the design

Unit 6: Advanced Obby Games
Concepts: designing obby-type roblox games (obstacle course games)
Activity: create and code an Obby game in roblox studio

Unit 7: Custom Project Design
Concepts: Introduction to design your own custom roblox game
Activity: start designing and creating individual custom roblox games

Unit 8: Final Project
Concepts: Review roblox and coding concepts
Activity: finish final custom games