

COURSE PROGRAM

Game development in Unity

EASYSKILLS



HOW DOES TRAINING GO?



The course consists of 9 modules

36 lessons once a week for 90
minutes

PURPOSE OF THE COURSE

Introduce children to the basics programming, as well as create your own 2D or 3D games.





The goal of the course is to introduce children to the basics of programming, as well as to create their own 2D or 3D games.

Course program:

First module

Lesson 1

Introduction to Unity3D and interface basics

- What is Unity3D? registration in the Unity3D
- environment familiarization with the Unity3D
- application and the program interface creation and
- modification of the first game objects

Lesson 2

Preparing to create a 2D game and the basics of scripting

- getting to know the Assets Store and adding materials to Unity preparing the map and characters for a new 2D
- game getting to know the C# language
-
- writing the first script in C#

Lesson 3

Start creating your first 2D game of your own

- Programming game characters Creating
- prefabs for your game Adding a GameController
- Learning how to call components in C#
-

Lesson 4

Creation of a 2D game such as a

- **fighting game** Formation of a scene for
- a new game Programming of game characters, creation of prefabs Work with GUI components Introduction and
- work with animation and Animator Controller
-



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Course program:

Second module

Lesson 1

Terrain. Land formation for 3D game.

- getting to know the Terrain Editor learning
- 3D map editing modes creating your own
- Terraina for the needs of the game programming level
- restarts

Lesson 2

Racing and Assets Store

- Getting to know the "Standard Assets"
- package Creating your own player and camera settings
- Getting to know the Waypoint component and setting it
- up Creating unique paths for game bots

Lesson 3

Horror preparation and programming of the simplest models

- creating a new Terrain changing
- the lighting parameters working with the
- monster animation programming the
- monster

Lesson 4

Completion of the second 3D game and sound

- **zones** introduction to the AudioSource
- component creating background music
- programming audio zones for the monster
- finalizing the game and creating a timer



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Course program:

Third module

Lesson 1

Starting the creation of the “Free

- **World”** getting to know Fuse CC
- working modes in Fuse CC and creating your own 3D characters getting to know mixamo.com and animation
- for your own models importing your own game models into Unity
-

Lesson 2

Continuing

- the formation of Terraina for your own game
- creating a moving main character getting to know
- bot navigation in Unity creating an aggressive bot
-

Lesson 3

Continuation of

- the creation of a hand-to-hand combat system for the player to
- get acquainted with the element of Ragdoll
- programming the death of a character
- reviewing the scripting material covered

Lesson 4

Final assembly of the project

- Finalization of the own game world
- Animation for bots Programming of the bot
- attack on the game character Assembly of the own project into
- an .exe file



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Course program:

Fourth module

Lesson 1

Creating a new project

- Creating a new 2D project
- Searching for the necessary
- sprites Creating base physics models
- Preparing the scene and required characters

Lesson 2

Continuation

- control function OnCollisionEnter2D creation of
- the reflection function RightWall creation of the
- reflection function LeftWall set the necessary
- variables and write the basic logic

Lesson 3

Continued

- creation of the reflection function
- Pol creation of the reflection function
- Potolok prescribe the algorithm of the script using the function Update
- projectile prefab creation

Lesson 4

Final assembly of the project

- creating an animation for opponents
- setting up an animator for opponents
- creating an enemy prefab creating a
- script for animated enemy death



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Course program:

Fifth module

Lesson 1

- final setup of object physics adding
- sound elements to the game scene creating a script
- for playing sound effects choosing background music
-

Lesson 2

Continued

- creation of physical models for the new game, finding and
- adding the necessary sprites
- creating a script to move the controlling function
- CheckGround

Lesson 3

Continued

- creating the necessary animations for our character setting up the animator
- and creating triggers
- creating a script to attack a character creating a
- script to kill a character

Lesson 4

- changing ZombieDead script
- creating a script for the pursuit setting up the
- animation of the enemy final setting up the scene
-



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Course program:

Sixth module

Lesson 1

- creating a house with traps
- finding and adding the necessary models creating
- basic animation of 3D objects

Lesson 2

- creating a second floor of a house with traps finding and
- adding the necessary models
- creating new traps

Lesson 3

- independent development of traps for the last floor of a house with traps

Lesson 4

- working with UI component Text
- writing a script for the character's health system finalizing scripts for
- sound effects



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Course program:

Seventh module

Lesson 1

- creating a new 3D project
- creating a UI blank for the menu
- searching and adding the necessary sprites
- programming UI components for the menu

Lesson 2

- creating prefabs for an endless road creating
- the necessary elements programming creating materials
- and setting up prefabs on the stage creating a script to
- control the road

Lesson 3

- finding and adding the necessary 3D models for bots creating
- physics for bot prefabs creating a script for bot movement
- creating a bot controller
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Lesson 4

- creating a GameController script
- creating new UI components
- creating a script to account for points in the
- project setting up new UI components



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Course program:

Eighth module

Lesson 1

- adding the necessary scenes to the
- project setting up and programming the main
- menu setting and programming the cut and restart scene creating
- a new 3D project

Lesson 2

- finding and adding the necessary 3D models for the project
- creating a sight for the character setting up the weapon prefab
- in the project programming the script for the weapon
-

Lesson 3

- creating a projectile prefab
- programming a projectile prefab finding
- and adding the necessary sounds
- programming sound sources

Lesson 4

- creating a script to control shooting on the stage
- setting the reload function setting the projectile
- creation function final setting of the scene
-



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Course program:

Ninth module

Lesson 1

- creating a training field creating a
- script for interactive training creating a basic animation
- of 3D objects

Lesson 2

- creating UI components for scoring
- creating a script for scoring creating new
- targets

Lesson 3

- independent development of traps for the last floor of a house with traps

Lesson 4

- working with UI component Text
- writing a script for the character's health system finalizing
- scripts for sound effects setting up a project to translate it into
- an online format