

Game Development Courses in South Africa

Duration:

5 Days

What is the course about?

Unlock the ultimate perk for your career in game development. Become a Unity Certified Developer and show employers you have the Unity skills they are looking for to improve your chances of landing that dream job doing what you love most – making games.

Duration

The course is run 5 days full time.

Programming Experience

Knowledge of C# or JavaScript or any object oriented programming is required.

Private Training

The course can be offered privately onsite or on our premises. The course can run in our Cape Town or Johannesburg premises. A minimum of 4 delegates is required to schedule the course. The course price is R9 500 onsite and R12 500 on our premises. There is no set date to run the course, we schedule the date that suits your team.

Course Topics

Animation

Animator System

Animator Controller Asset

Examine the Animator Controller

Apply an Animator Controller to a Game Object

Create an Animator Controller

States

Define parameter types

Differentiate animation states

Create a new animation state

Implement the Any StateAsset Management

Transitions

Explain transition conditions

Differentiate transition properties

Create transitions

Assets Management

Audio Clips

List compression formats

Default GameObjects

Differentiate GameObjects by their appearance

Identify GameObjects within a scene

Identify script types

Models

Differentiate import file formats

Prefabs

Define a Prefab

Create a Prefab

Scene File

Load a scene

Save a scene

Sprites

Sprite editor

Modify sprites

Audio

Audio Mixer

Audio Effects

Describe various Audio Effects

Audio Reverb Zone

Presets

Differentiate audio properties

Audio Source

Audio Properties

Explain audio options

Explain the doppler effect

Activate audio source looping
Modify the volume of an audio source
Locate Audio Clips

Editor Interface

Editor Customization

Layouts
Customize the Unity interface
Differentiate Unity editors

Views

Asset Store

Explain the benefits of the Asset Store

Console

Differentiate the Console Window

Hierarchy

Explain the purpose of the Hierarchy Window

Differentiate the Hierarchy Window

Utilize the Hierarchy Window

Create empty GameObjects

Parent objects

Inspector

Explain the functionality of the Inspector Window

Reset components

Project

Explain the functionality of the Project View Window

Identify UI functionality in the Project View Window

Identify an empty Prefab

Focus the Scene View Camera

Scene

Differentiate the Project View Window

Use the Zoom Tool

Orbit the camera

Toolbar

Modify Gizmos

Employment Preparedness Collaboration Skills

Providing Critique

Define "critique" in the context of video game development
Employment Responsibilities
Company Confidentiality Explain the purpose of the Non-Disclosure Agreement Explain the concept of "intellectual property"

Game Art Principles Character Design

Non-Player Characters

Describe methods to optimize model assets

Concept Design

Color palette

Summarize how art choices affect mood

Look-and-feel imagery

Explain the purpose of concept art

Environment Design

Color palette

Explain the concept of "unifying color"

Game Design Principles Game Mechanics

Casual Games

Differentiate video game types

Third Person

Identify video game mechanics

Differentiate video game participants

Genre

Realtime Strategy

Differentiate video game genres

Platform

Controller

Identify video game controls

Industry Awareness

Employment Trends

Common Job Titles

Differentiate production talent roles and responsibilities

Industry Trends

Hardware Products

Differentiate console hardware based by feature

Production Trends

Production Cycles

Match production phases by criteria

Lighting

Global Illumination (GI)

Baked GI

Explain lighting settings

Baking

Explain Light Baking

Explain Lightmaps

Explain Generate Lightmap UV settings

Light Component

Shadows

Assess shadow types

Type

Explain light intensity

Define Culling Mask

Differentiate light types by feature

Infer lighting settings by visual indicators

Materials and Effects

Effects

Image Effects

Differentiate Image Effects by their result

Predict particle option results

Materials

Standard Shaders

Assess Rendering Modes

Match Standard Shader properties by their description

Define the Albedo of a material

Particle System

Emitters

Explain particle system settings

Differentiate particle options by their result

Navigation and Pathfinding

Navigation Agents

Obstacle Avoidance

Explain obstacle avoidance using NavMesh agents

Navigation

Baking Bake Settings

Explain the function of Max Slope [Navigation](#)

Explain the function of a NavMesh

Explain NavMesh baking

Physics

Colliders

3D Capsule

Identify colliders by their appearance

Differentiate properties

Transform colliders

Utilize colliders

Optimization and Debugging

Raycast

Explain raycast parameters

Describe the function of raycasts

Assess raycast trajectories

Rigidbody

Components

Explain Rigidbodies

Locate Rigidbodies

Differentiate Rigidbody properties

Assess the impact of forces on Rigidbodies

Programming

Camera API

ScreenPointToRay

Recognize the purpose of existing code

GameObject

Components

Finalize specific lines of code

Methods/Functions

Declaration and Use

Explain the purpose of methods

Differentiate methods by their result

MonoBehavior API

Awake

Differentiate methods by their result

Recognize methods by their desired result

Fixed update

Evaluate the effectiveness of specific methods

Object Oriented Programming

Objects

Recognize class definitions from provided code

Quaternion

Use of

Explain Quaternions

Time

DeltaTime

Explain DeltaTime

Unity Interface

File Management

Differentiate public variable within code

Create a new script

Variables

Floating Point

Recognize and replace variables within code

Integer

Recognize and replace variables within code **Vector3**

Define variables

Project Management

Game Objects

Layers

Explain the function of layers

Tags

Identify the function of Tags

Transform

Explain the function of GameObject components

Recognize GameObject components

Components

Differentiate components by their properties

Services

Ads

Ad Types

Differentiate Unity services by a set of features

Function

Recognize Unity services from a description

Analytics

Function

Summarize the benefits of Unity Analytics

Project ID

Implement Unity Analytics within a game

Cloud Build

Platforms

Examine the features of Unity Cloud Build

Collaborate

Function

Describe the requirements for Unity Collaborate

User Interface

Button

Function

Differentiate button properties

Interaction

Predict methods called by action **Transition**

Explain button properties

Canvas

Coordinates

Differentiate render modes

Image

Sprites

Differentiate UI components

Rect Tool

Anchor

Identify anchor points

Utilize pivots and anchors

Rect Transform

Differentiate UI components

Assess Rect Transform features

Utilize text properties

Slider

Describe the function of UI components