

## Unity 3D Fundamentals

### **1. Introduction to Unity**

- Getting to know the Unity Editor
- The Project Dialog
- The Unity Interface
- The Project View
- The Hierarchy View
- The Scene View
- The Game View
- Navigating in Unity
- Flythrough mode

### **2. Game Objects**

- Dimensions and coordinate systems
- Putting the D in 3D
- World vs Local coordinates
- Game Objects
- Transform, Translate, Rotate and Scale

### **3. Models, Materials and Textures**

- Basics of Models
- Built-in 3D Objects
- Importing Models
- Textures, Shaders and Materials

### **4. 3D Terrain**

- Terrain Generation
- Adding terrain to your project
- Terrain settings
- Heightmap Sculpting
- Importing terrain assets

### **5. Environments**

- Generating trees and grass
- Painting trees and grass
- Environment effects
- Skyboxes

### **6. Lights and Cameras**

- Lights
- Cameras
- Layers

## **7. Collision**

- Colliders
- Collision
- Rigidbodies
- Physics Materials
- Triggers

## **8. Scripting**

- Using Methods
- Input Basics

## **9. Animation**

- Animation types
- Rig
- Creating an Animation

## **10. Animators**

- Creating basic animator

## **11. Audio**

- Importing audio clips
- Basics of Audio in 3D animation

## **12. Polish & Deploy**

- Managing and stabilising scene order
- Keeping objects
- Saving data
- Unity player settings
- Cross-platform settings
- Building your game
- Game and build settings

## **13. Basics of multiplayer in Unity**

- Create an object to spawn for each connected player
- Testing Hello World