

## Unreal Engine 5

### Table of Content

#### Day 1

##### **1. Introducing Unreal Engine 5**

- Installing Unreal
- Creating Your First Project
- Learning the Interface.
- View Modes and Visualizers
- Playing a Level
- Summary
- Q&A
- Workshop
- Exercise

##### **2. Understanding the Gameplay Framework**

- Available Resources
- Asset References and the Reference Viewer
- Gameplay Framework
- Summary
- Q&A
- Workshop
- Exercise

##### **3. Coordinates, Transforms, Units, and Organization**

- Understanding Cartesian Coordinates Working with Transforms
- Assessing Units and Measurements
- Organizing a Scene
- Summary
- Q&A
- Workshop
- Exercise

##### **4. Working with Static Mesh Actors**

- Static Mesh Assets
- Static Mesh Editor
- Viewing UV Layouts
- Collision Hulls
- Static Mesh Actors
- Summary
- Q&A
- Workshop
- Exercise

## **5. Applying Lighting and Rendering**

- Learning Light Terminology
- Understanding Light Types
- Using Light Properties
- Building Lighting
- Summary
- Q&A
- Workshop
- Exercise

### **Day 2**

## **6. Using Materials**

- Understanding Materials
- Physically Based Rendering (PBR)
- Material Input Types
- Creating Textures
- Making a Material
- Summary
- Q&A
- Workshop
- Exercise

## **7. Using Audio System Elements**

- Introducing Audio Basics
- Using Sound Actors
- Controlling Sounds with Audio Volumes
- Table of Contents
- Summary
- Q&A
- Workshop
- Exercise

## **8. Creating Landscapes and Foliage**

- Working with Landscapes
- Sculpting Shapes and Volumes

- Using Foliage
- Summary
- Q&A
- Workshop
- Exercise

## **9. World Building**

- Building Worlds
- World Building Process
- Summary
- Q&A
- Workshop
- Exercise

## **10. Crafting Effects with Particle Systems**

- Understanding Particles and Data Types
- Working with Cascade
- Using Common Modules
- Setting Up Materials for Particles
- Triggering Particle Systems
- Summary
- Q&A
- Workshop
- Exercise

## **Day 3**

### **11. Using Skeletal Mesh Actors**

- Defining Skeletal Meshes
- Importing Skeletal Meshes
- Learning Persona
- Using Skeletal Mesh Actors
- Summary
- Q&A

- Workshop
- Exercise

## **12. Matinee and Cinematics**

- Matinee Actors
- Matinee Editor
- Curve Editor
- Working with Other Tracks
- Working with Cameras in Matinee
- Summary
- Q&A
- Workshop
- Exercise

## **13. Learning to Work with Physics**

- Using Physics in UE
- Simulating Physics
- Using Physical Materials
- Working with Constraints
- Using Force Actors
- Summary
- Q&A
- Workshop
- Exercise

## **14. Introducing Blueprint Visual Scripting System**

- Visual Scripting Basics
- Understanding the Blueprint Editor
- Fundamental Concepts in Scripting
- Summary
- Q&A
- Workshop
- Exercise

## **15. Working with Level Blueprints**

- Actor Collision Settings
- Assigning Actors to Events
- Assigning Actors to Reference Variables

- Summary
- Q&A
- Workshop
- Exercise

## **Day 4**

### **16. Working with Blueprint Classes**

- Using Blueprint Classes
- The Blueprint Editor Interface
- Working with the Components
- Working with the Timeline
- Summary
- Q&A
- Workshop
- Exercise

### **17. Using Editable Variables and the Construction Script**

- Setting Up
- Making Editable Variables
- Using the Construction Script
- Summary
- Q&A
- Workshop
- Exercise

### **18. Making Key Input Events and Spawning Actors**

- Why Spawning Is Important
- Creating a Blueprint Class to Spawn
- Setting Up the Spawner Blueprint
- Spawning an Actor from a Class
- Summary
- Q&A
- Workshop
- Exercise

### **19. Making an Action Encounter**

- Project Game Modes
- Knowing Characters' Abilities
- Using Blueprint Classes
- Actor and Component Tags
- Summary
- Q&A
- Workshop
- Exercise

## **20. Creating an Arcade Shooter: Input Systems and Pawns**

- Identifying Requirements with a Design Summary
- Creating a Game Project
- Creating a Custom Game Mode
- Creating a Custom Pawn and Player Controller
- Controlling a Pawn's Movement
- Setting Up a Fixed Camera
- Summary
- Q&A
- Workshop
- Exercise

## **Day 5**

## **21. Creating an Arcade Shooter: Obstacles and Pickups**

- Creating an Obstacle Base Class
- Making Your Obstacle Move
- Damaging the Pawn
- Restarting the Game on Death
- Creating a Health Pickup
- Creating an Actor Spawner
- Cleaning Up Old Obstacles
- Summary
- Q&A
- Workshop
- Exercise

## **22. Working with UMG**

- Creating a Widget Blueprint
- Navigating the UMG Interface
- Creating a Start Menu
- Sample Menu System
- Summary
- Q&A
- Workshop
- Exercise

## **23. Making an Executable**

- Cooking Content
- Packaging a Project for Windows
- Resources for Android and iOS Packaging
- Accessing Advanced Packaging Settings
- Summary
- Q&A
- Workshop
- Exercise

## **24. Working with Mobile**

- Developing for Mobile Devices
- Using Touch
- Using a Device's Motion Data
- Summary
- Q&A
- Workshop
- Exercise