

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