

Professional Certificate in Game Design (With Unreal Engine)

1 - UNREAL ENGINE BOOT CAMP

- Getting Started with Unreal Engine
- Navigation and Interface
- Meshes, Collision and Actors
- Asset Placement
- Materials
- Landscape Tools
- Basic Lighting
- Basic Blueprints
- Camera, Sequencer & Post-Processing
- UE Landscape Project

2 - GAME CONCEPT ART

- The Importance of Concept Art for Games
- Role and Responsibility of the Concept Artist
- Photoshop Essentials
- Designing Problems – big environments vs small props
- Drawing vs Photo-bashing
- Creating the Idea and style of your Game
- Creating a style sheet from reference for your game idea

3 - ASSET DEVELOPMENT

- Introduction to Blender
- Object and Edit Mode
- Using Modifiers
- Introduction to Materials and Shaders
- Basic UV Mapping
- The Asset Browser
- Creating a hard Surface Game Asset
- Modular game assets
- Creating assets for a Modular Environment
- Modular Game Asset Project

4 - ADVANCED UNREAL ENGINE

- Metahumans
- Niagara Particles
- Audio in Unreal Engine
- VFX in Unreal Engine
- Advanced Cinematics using Quixel Assets
- Unreal Motion Graphics (UMG)
- Creating HUD and UI Elements
- Advanced Blueprints
- Using VR with Unreal Engine
- VR Game Project

5 - MULTIPLAYER GAMES

- Fundamentals of Multi-Player Games
- Peer to Peer and Client Server Models
- THE Online Subsystem
- Core Classes used in multi-player
- Testing Multiplayer Levels
- Joining Game Sessions
- Creating a Battle Royale Project

6 - METAVERSE DESIGN CONCEPTS

- Key Elements of Metaverse Design
- Creating Metaverse Environments
- Metaverse Design project
- Testing the Metaverse Project

7 - FINAL PORTFOLIO PROJECT

Designing, building, testing, and packaging your own multi-player game or Metaverse Project as your final Portfolio Project.

