"Embark On A Thrilling Journey Into The Realm Of Game Development with Our Unreal Engine Gaming Course! Bring Your Virtual Worlds to Life, & Master the Art of Gaming"



UNREAL ENGINE

3D Animation | Character Modelling | GAMING Rigging | Rendering | BLENDER | PHOTOSHOP

UNREAL ENGINE | GAMING | 3D ANIMATION

100% Job Assistance Become a Certified Gaming Professional





9833900330 9833900110 Certified VIDEO EDITING & VFX Course |Adobe PREMIERE PRO | Adobe AFTER EFFECT | Adobe AUDITION | PORTFOLIO CREATION | INTERVIEW PREPARATION







Real Classes Images

🚰 Why Should you Learn from Softpro?

- 1. 32 Years Experience (Estbl. 1992 Softpro Academy)
- 2. 100% Practicals in Classroom with Assignments
- 3. You Create & Work on Live Projects.
- 4. Learn from Experienced Professionals & Experts
- 5. Faculties have **<u>REAL Life Experience</u>**
- 6. Small Batches of Students leads to Personal Attention
- 7. Simple & Easy to Understand Course Material
- 8. You have Classroom Training & Learn from Anywhere
- 9. Highly Experienced & Industry Expert Faculty.
- 10. 100% Job Assistance
- 11. Dedicated Placement Team









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This course is designed to take learners from the basics to advanced concepts in game development using Unreal Engine.

G A M I N G: Unreal Engine Game Development

Module 1: Introduction to Unreal Engine

1. Overview of Unreal Engine:

- Introduction to game engines and Unreal Engine's role.
- Installing and setting up Unreal Engine.

2. User Interface and Project Setup:

- Navigating the Unreal Editor.
- Creating and configuring new projects.

Module 2: Understanding the BLUEPRINT VISUAL Scripting

- 3. Actor and Pawn System:
 - Introduction to Actors and Pawns.
 - Implementing movement & interaction.

4. **BLUEPRINT Visual Scripting:**

- Fundamentals of visual scripting in Blueprints.
- Creating simple game mechanics using Blueprints.

Module 3: World Building and Level Design

- 5. Level Design Essentials: ENGINE
 - Understanding levels and sub-levels.
 - Building environments using the Landscape tool.

6. Lighting and Atmosphere:

- Implementing dynamic and static lighting.
- Creating atmospheric effects and post-processing.

Module 4: Character & Animation

- 7. Character Creation:
 - Importing character assets.
 - Setting up character animations.

8. Animation BLUEPRINTS:

• Blending animations for fluid character movement.





Module 5: Gameplay Mechanics

9. Player Input and Controls:

- Configuring player input.
- Implementing control schemes.
- 10. Gameplay Mechanics Implementati
 - Designing and implementing core gameplay mechanics.
 - Creating interactive elements.

Module 6: Multiplayer Developme

- 11. Introduction to Multiplayer:
 - Setting up multiplayer functionality.
 - Replication and networking essentials.

12. Online Subsystems and Matchmaking:

- Implementing online subsystems.
- Creating matchmaking systems.

Module 7: Optimization and Performance

- 13. **Performance Optimization Techniques:**
 - Profiling and optimizing game performance.
 - Addressing common bottlenecks.

Module 8: Real-world Project Development

14. Project Development:

- Collaborative development on a real-world project.
- Integrating various concepts learned throughout the course.

Module 9: Final Project and Showcase

15.

Final Project:

- Working on a comprehensive final project.
- Implementing advanced features and showcasing skills.

16. **Portfolio Development:**

- Creating a portfolio to showcase completed projects.
- Preparing for job opportunities and freelance work.



Prerequisites:

- Basic understanding of programming concepts
- Familiarity with game development concepts.

This **course is designed for individuals who aspire to become proficient game developers using Unreal Engine.** It covers a broad range of topics to provide a understanding of game development principles and practices using this powerful game engine.



Blender 3D ANIMATION

Module 1: Introduction to Blender

- 1. Overview of Blender:
 - Introduction to the Blender interface.
 - Navigating the 3D viewport and understanding key elements.
- 2. Setting Up Projects:
 - Creating and configuring projects in Blender. Project organization and management.

Module 2: Basic 3D Modeling

- 3. Primitive Objects:
 - Creating basic shapes and objects.
 - Manipulating vertices, edges, and faces.

4. Modifiers and Mesh Editing:

- Applying modifiers for efficient modeling.
- Advanced mesh editing techniques.

Module 3: Sculpting and Texturing

- 5. Sculpting Tools:
 - Introduction to sculpting in Blender.
 - Creating organic shapes and detailing.
- 6. Texturing and UV Mapping:
 - Applying textures to 3D models.Understanding UV mapping and unwrapping.

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Module 4: Advanced 3D Modeling

- 7. Hard Surface Modeling:
 - Creating complex, geometric forms.
 - Implementing boolean operations for precision.

8. Modeling for Animation:

- Rigging and preparing models for animation.
- Understanding the importance of topology.

Module 5: Animation and Rigging

- 9. Introduction to Animation:
 - Keyframe animation in Blender.
 - Creating smooth and realistic animations.

10. Rigging and Armatures:

- Rigging characters for animation.
- Implementing inverse kinematics (IK) and constraints.

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Module 6: Lighting and Rendering

11. Lighting Techniques:

• Implementing various lighting setups. Enhancing scenes with realistic lighting.

12. Rendering in Blender:

- Configuring rendering settings.
- Exploring the Cycles and Eevee render engines.

Module 7: Particle Systems and Simulations

13. Particle Systems:

- Creating dynamic effects such as fire, smoke, and rain.
- Fine-tuning particle parameters.

14. Physics Simulations:

• Simulating physics-based animations. Cloth, fluid, and soft body simulations.

Module 8: Compositing and Post-Processing

15. Compositing in Blender:

• Combining & Enhancing rendered images. Visual effects & Color correction.

16. Post-Processing Techniques:

- Adding final touches to rendered images.
- Exporting images and animations.

Module 9: Game Development with Blender

17. Introduction to Blender Game Engine:

• Basics of game development in Blender. Creating simple interactive games.

18. Exporting to Game Engines:

- Exporting models and animations to external game engines.
- Integration with popular game development platforms.

Module 10: Real-world Projects and Portfolio Building

19. Project-Based Learning:

- Applying acquired skills to practical projects.
- Building a portfolio showcasing completed work.

20. Industry Tips and Best Practices:

- Tips for efficient workflows and time-saving techniques.
- Best practices for collaboration and asset management.

Prerequisites: This comprehensive Blender 3D Masterclass is designed for individuals who want to explore the full spectrum of Blender's capabilities, from 3D modelling and animation to simulation and game development.

Adobe PHOTOSHOP

Module 1: Introduction to Adobe Photoshop

- 1. Overview of Adobe Photoshop:
 - Introduction to the interface and workspace.
 - Understanding the tools and panels.
- 2. Setting Up Projects:
 - Creating and configuring a new project.
 - Utilizing presets and custom settings.

Module 2: Basic Image Editing

- Module 3: Selection and Masking
- Module 4: Layers and Blending Modes
- Module 5: Text and Typography
- **Module 6: Image Retouching and Restoration**
- Module 7: Filters and Effects
- **Module 8: Advanced Techniques**
- Module 9: Automation and Batch Processing
- Module 10: Real-world Projects and Portfolio Building

Prerequisites:

- Basic computer skills.
- Familiarity with graphic design concepts is beneficial but not mandatory.



Autodesk MAYA for Game Development

Introduction to Maya

- Overview of Maya Interface
- Navigating the Viewport
- Customizing the Workspace
- Understanding Maya's File Structure
- Basic Navigation and Controls

Modeling Fundamentals

- Introduction to 3D Modeling
- Understanding Polygons and NURBS
- Creating and Manipulating Basic Shapes
- Extrusion, Beveling, and Bridging Techniques
- Modeling Workflow and Best Practices

Advanced Modeling Techniques

- Organic Modeling: Characters and Creatures
- Hard Surface Modeling: Props and Environments
- Using Reference Images and Blueprints
- Retopology for Game Models
- High-Poly vs. Low-Poly Modeling

UV Mapping and Texturing

- Introduction to UV Mapping
- Unwrapping UVs for Texturing
- Using UV Layout Tools
- Creating and Applying Textures
- Advanced Texturing Techniques
- Working with PBR Textures





Shading and Materials

- Understanding Maya's Shading Networks
- Creating and Editing Materials
- Using the Hypershade Editor
- Working with Various Shader Types
- Applying Bump Maps, Normal Maps

Lighting and Rendering

- Basics of Lighting in Maya
- Working with Different Light Types
- Creating Realistic Lighting Setups
- Introduction to Rendering in Maya
- Using Arnold Renderer
- Optimizing Renders for Game Engines

Rigging and Animation

- Introduction to Rigging
- Creating and Applying Skeletons
- Skinning and Weight Painting
- Basics of Character Animation
- Keyframe Animation and Timeline
- Using the Graph Editor for Animation
- Creating Animations for Game Engines

Dynamics and Effects

- Introduction to Dynamics in Maya
- Working with Particles and Fluids
- Creating Cloth and Hair Simulations
- Using Bullet Physics for Rigid Body Dynamics

Integration with Game Engines

- Preparing Models for Export to Game Engines
- Exporting to Unity and Unreal Engine



- Ensuring Compatibility and Optimization
- Testing Assets in the Game Engine Environment

Advanced Topics

- Advanced Character Rigging
- Facial Rigging and Animation
- Procedural Modeling Techniques
- Using MEL and Python for Scripting

Project Workflow and Pipeline

- Project Planning and Asset Management
- Working in a Team Environment
- Best Practices for File Organization and Version Control
- Collaborating with Other Disciplines (e.g., animators, programmers)

Project

- Planning a Game Asset or Scene
- Implementing Advanced Modeling and Texturing Techniques
- Rigging and Animating Characters or Objects
- Integrating the Final Asset into a Game Engine
- Presenting and Critiquing the Final Project

Career Preparation

- Building a Professional Portfolio
- Networking and Industry Insights
- Resume and Interview Preparation
- Exploring Career Paths in Game Development

This comprehensive course content is designed to provide a thorough understanding of **Autodesk Maya for game development,** ensuring that students acquire the skills needed to create professional-quality game assets and animations.

NGI

Audio Tools

Adobe Audition: A more advanced audio editing tool, part of the Adobe Creative Cloud suite.



3D MAX CHARACTER ANIMATION

1. Introduction to 3D Max

- Overview of 3D Max interface
- Basic navigation and tools
- Setting up the workspace for character animation

2. Character Design and Modeling

- Principles of character design for gaming
- Modeling characters using polygonal techniques
- Creating high and low poly models
- UV mapping and texturing basics

3. Rigging Fundamentals

- Introduction to character rigging
- Creating and setting up a skeletal structure
- Skinning and weighting techniques
- Implementing inverse kinematics (IK) and forward kinematics (FK)

4. Character Animation Basics

- Principles of animation (Timing, Spacing, Squash, Stretch.
- Keyframe animation techniques
- Working with the timeline and curve editor
- Creating a basic walk cycle

5. Advanced Character Animation

- Refining walk cycles and creating run cycles
- Animating different types of movement (jumps, turns)
- Facial animation techniques and lip-syncing
- Animating with constraints and controllers

6. Animating for Interactivity

- Understanding animation states for games (idle, attack, defense, etc.)
- Transitioning between animation states smoothly
- Looping animations for continuous action



7. Using Biped and CAT Tools

- Introduction to Biped and Character Animation Toolkit (CAT)
- Creating and customizing Biped rigs
- Animating with CAT motion layers and presets

8. Integrating Animations into Game Engines

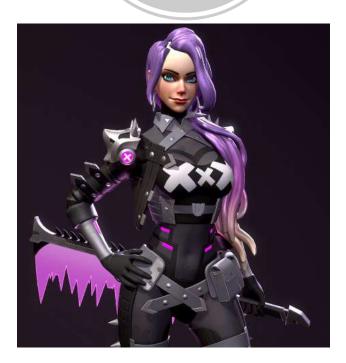
- Exporting character models and animations
- Importing assets into game engines (e.g., Unity, Unreal Engine)
- Setting up animation controllers and states in game engines
- Troubleshooting common issues with animations in games

9. Optimization and Performance

- Techniques for optimizing animations for real-time performance
- Reducing poly count and optimizing textures
- Implementing LOD (Level of Detail) for character models

Project Work and Final Assignment

- Planning and creating a complete character animation sequence for a game
- Peer review and feedback sessions
- Final presentation and evaluation



ZBRUSH

- Interface and Navigation
- Scene Organisation, Tools and Subtools
- Primitives
- Import and Export Of Models
- Masks
- Layers
- Clip, Trim and Slice Tools
- Zspheres
- Shadowbox and Dynamesh
- Zremesher and Retopology
- Projections
- Live Booleans
- Creation Of Brushes, Alphas and Paths
- Alphas3D (VDM) IMM
- Brush Multialpha
- Surface Noise and Distribution Of Surface Patterns
- Distribution Of Geometries By Surfaces, Nanomesh
- Micromesh and Fibermesh
- Painting Objects, Polypaint
- Creating Uvs, UV Master
- Extraction Of Maps, Texture Map, Normal Map, Displacement Map, Cavity Map

- Character Posing, Transpose
- Rendering with Keyshot
- Video Creation from Zbrush



KEY GAMING CAREER PATHS UTILIZING UNREAL ENGINE, 3D MAX, VFX, ZBRUSH & MAYA:

1. Game Designer

- Conceptualizing game ideas and mechanics
- A Designing levels, missions, and user experiences
- Using Unreal Engine for prototyping and implementing gameplay elements

2. 3D Modeler

- A Creating high-quality 3D assets for characters, environments, and props
- A Using 3D Max or Maya for modeling, texturing, and rendering
- A Optimizing models for real-time performance in Unreal Engine

3. Character Artist

- Designing and modeling detailed characters
- A Rigging and skinning characters in 3D Max or Maya
- A Importing and animating characters in Unreal Engine

4. Environment Artist

- A Building immersive and visually stunning game environments
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- A Integrating assets and optimizing levels in Unreal Engine

5. Technical Artist

- A Bridging the gap between artists and programmers
- A Developing shaders, materials, and visual effects in Unreal Engine
- A Scripting and automating workflows in 3D Max, Maya, and Unreal Engine

6. Animator

- A Creating lifelike animations for characters and objects
- A Using 3D Max or Maya for rigging and animation
- A Implementing and refining animations in Unreal Engine

7. Visual Effects (VFX) Artist

- A Designing and creating visual effects like explosions, smoke, and magic
- A Using particle systems and simulations in 3D Max or Maya
- A Integrating VFX into Unreal Engine for real-time performance

8. Level Designer

- Planning and constructing game levels
- A Using Unreal Engine for level layout, lighting, and scripting
- Collaborating with 3D artists to populate levels with assets

9. Technical Director

- A Overseeing technical aspects of game development
- Managing pipelines and ensuring compatibility between 3D Max, Maya, and Unreal Engine
- Solving complex technical challenges and optimizing workflows

10. Game Developer/Programmer

- Mitting code to implement game mechanics and systems
- Using Unreal Engine's Blueprints or C++ for game logic
- A Collaborating with artists to integrate assets and animations

11. Freelance Artist/Developer

- A Offering specialized services in modeling, animation, or game design
- 🐢 Utilizing 3D Max, Maya, and Unreal Engine for various projects
- Norking with multiple clients across different gaming platforms

"CAREER PATHS offer diverse opportunities for leveraging skills in UNREAL Engine, 3DS MAX, ZBRUSH, & MAYA to create engaging & Visually Stunning Games"







MASTER GRAPHICS 6 MONTH DIPLOMA Adobe Photoshop | Illustrator | In-Design | Product Packaging | CANVA | Digital Art | Al Artificial Intelligence | PORTFOLIO



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