Mixed Reality in Design Training Course

Professional Development Training Course Outline

Category	Architectural Engineering	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Mixed Reality (MR) in Design is revolutionizing how creators, engineers, and architects conceptualize, prototype, and deliver immersive digital experiences by blending Augmented Reality (AR), Virtual Reality (VR), and Spatial Computing into unified design workflows. Mixed Reality in Design Training Course provides a future-ready skillset focused on XR development, 3D interaction design, digital twins, real-time rendering, and immersive prototyping, enabling learners to design across physical and virtual environments using cutting-edge platforms such as Unity, Unreal Engine, NVIDIA Omniverse, and WebXR frameworks.

As industries rapidly adopt Metaverse technologies, AI-driven design systems, holographic visualization, and immersive simulation environments, Mixed Reality is becoming a core competency in architecture, product design, gaming, education, healthcare visualization, and industrial training. This course empowers participants to build interactive spatial experiences, collaborative virtual environments, and real-world simulation models, preparing them for next-generation roles in XR development, immersive UI/UX design, and spatial experience engineering.

Programme Curriculum

Mixed Reality in Design Training Course

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Course Duration

5 days

Course Objectives

1. Master fundamentals of Mixed Reality (MR), Extended Reality (XR), AR & VR ecosystems
2. Understand Spatial Computing principles and 3D interaction design
3. Develop immersive experiences using Unity and Unreal Engine
4. Create real-time 3D environments and virtual simulations
5. Build Augmented Reality applications for design visualization
6. Design interactive Virtual Reality training modules and simulations
7. Implement Digital Twin technology for real-world replication
8. Explore Metaverse design frameworks and virtual collaboration systems
9. Integrate AI-powered generative design tools in XR workflows
10. Apply Human-Computer Interaction (HCI) in immersive environments
11. Optimize performance for real-time rendering and graphics pipelines
12. Develop WebXR and cloud-based immersive applications
13. Deploy complete end-to-end Mixed Reality design solutions

Target Audience

1. UI/UX Designers transitioning into immersive design (XR/Spatial UI)
2. Architects and urban planners using digital twin visualization
3. Game developers expanding into VR/AR environments
4. Engineering students focused on simulation-based learning
5. Product designers working with 3D prototyping tools
6. IT professionals exploring Metaverse development careers
7. Educators building immersive learning experiences
8. Creative technologists in interactive media and experiential design

Course Modules

Module 1: Introduction to Mixed Reality & XR Ecosystem

- Fundamentals of AR, VR, MR technologies
- Understanding XR hardware and devices
- Overview of spatial computing systems
- Industry applications across sectors
- XR design pipeline fundamentals
- **Case Study:** Retail brand using AR for virtual product try-ons increasing engagement by 40%

Module 2: 3D Design Foundations for Immersive Environments

- 3D modeling basics for XR

- Asset creation and optimization
- Lighting and rendering techniques
- Material design for realism
- Scene composition principles
- **Case Study:** Automotive company building virtual car configurators for customer experience

Module 3: Unity for Mixed Reality Development

- Unity XR toolkit introduction
- Scene building and interaction design
- Physics and animation systems
- AR Foundation setup
- Deployment across devices
- **Case Study:** Educational institution creating VR science labs for remote learning

Module 4: Unreal Engine for Real-Time Visualization

- Unreal Engine interface and workflow
- Blueprint visual scripting
- Photorealistic rendering techniques
- VR simulation environments
- Real-time interaction systems
- **Case Study:** Architecture firm using Unreal Engine for real-time building walkthroughs

Module 5: Augmented Reality Design & Development

- Marker-based vs markerless AR
- Mobile AR development workflows
- Spatial anchoring techniques
- AR UI/UX principles
- Cross-platform deployment
- **Case Study:** Furniture company enabling AR-based home placement visualization app

Module 6: Virtual Reality Experience Design

- VR interaction design principles
- Immersive storytelling techniques
- Motion tracking and controllers
- Spatial audio integration
- Comfort and usability optimization
- **Case Study:** Medical training simulation for surgical practice in VR environments

Module 7: Digital Twins & Industrial Simulation

- Concept of digital twin architecture
- IoT integration with XR systems
- Real-time data visualization
- Simulation of physical systems
- Predictive modeling in XR
- **Case Study:** Smart factory using digital twins for predictive maintenance and efficiency optimization

Module 8: Metaverse & Collaborative XR Environments

- Metaverse architecture and platforms
- Multi-user virtual collaboration systems
- Avatar and identity systems
- Blockchain integration in XR assets
- Cloud-based XR deployment
- **Case Study:** Global enterprise conducting virtual board meetings in immersive Metaverse workspace

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com