Course on Virtual Reality (VR) and Augmented Reality (AR) for Safety Training

Professional Development Training Course Outline

Category	Occupational Health	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s fast-paced, technology-driven world, ensuring workplace safety requires more than traditional training methods. Virtual Reality (VR) and Augmented Reality (AR) offer immersive, interactive solutions that revolutionize safety training across industries such as manufacturing, construction, healthcare, aviation, and logistics. These cutting-edge technologies provide high-impact simulations that reduce risk, increase retention, and improve real-world performance.

Course on Virtual Reality (VR) and Augmented Reality (AR) for Safety Training is designed to equip professionals with the practical knowledge, tools, and strategies needed to implement immersive safety training programs. Leveraging real-time simulations, interactive environments, and data-driven feedback, this training bridges the gap between theoretical knowledge and hands-on application, enhancing both compliance and incident response outcomes.

Programme Curriculum

Course on Virtual Reality (VR) and Augmented Reality (AR) for Safety Training

Introduction

In today’s fast-paced, technology-driven world, ensuring workplace safety requires more than traditional training methods. Virtual Reality (VR) and Augmented Reality (AR) offer immersive, interactive solutions that revolutionize safety training across industries such as manufacturing, construction, healthcare, aviation, and logistics. These cutting-edge technologies provide high-impact simulations that reduce risk, increase retention, and improve real-world performance.

Course on Virtual Reality (VR) and Augmented Reality (AR) for Safety Training is designed to equip professionals with the practical knowledge, tools, and strategies needed to implement immersive safety training programs. Leveraging real-time simulations, interactive environments, and data-driven feedback, this training bridges the gap between theoretical knowledge and hands-on application, enhancing both compliance and incident response outcomes.

Course Objectives

- Understand the fundamentals of Virtual and Augmented Reality in industrial safety.
- Identify key safety risks addressable through immersive simulation.
- Develop VR/AR-based hazard identification modules.
- Evaluate the cost-effectiveness of immersive safety training.
- Design VR-based fire safety and emergency evacuation simulations.
- Implement AR-enhanced equipment handling training.
- Integrate AI with VR/AR for smart safety analytics.
- Leverage AR for real-time situational awareness in hazardous environments.
- Enhance workforce safety compliance using immersive training tools.
- Assess VR/AR learning effectiveness with performance metrics.
- Apply VR for mental health and stress management in high-risk professions.
- Create VR-based scenario-based safety assessments.
- Collaborate with developers to customize VR/AR safety solutions.

Target Audience

- Safety Officers & Coordinators
- EHS (Environment, Health & Safety) Managers
- Corporate Trainers
- Industrial Engineers
- Construction Managers
- First Responders & Emergency Planners
- HR & Compliance Professionals
- Healthcare Safety Supervisors

Course Duration: 10 days

Course Modules

Module 1: Introduction to VR & AR in Safety Training

- History and evolution of immersive technologies
- Differences between VR, AR, and MR
- Industry-specific applications of VR/AR
- Benefits of immersive safety learning
- Hardware & software overview
- **Case Study: Construction site hazard training using Oculus Quest**

Module 2: Risk Identification Through VR Simulations

- Identifying and visualizing hazards
- Designing virtual risk zones
- Using VR to map near-miss incidents
- Trainee performance metrics in simulations
- Gamification of hazard recognition
- **Case Study: VR in oil rig safety inspection scenarios**

Module 3: AR for Real-Time Hazard Awareness

- Smart wearables and AR glasses
- Enhancing situational awareness
- Real-time alerts and hazard overlays
- AR-based guided walkthroughs
- Maintenance and inspection training
- **Case Study: AR smart helmet for chemical plant safety**

Module 4: Emergency Evacuation Planning in VR

- Simulating fire drills and escape routes
- Stress response under VR scenarios
- Multi-user evacuation planning
- Role-play crisis management
- Exit timing & success metrics
- **Case Study: Office tower VR fire escape simulation**

Module 5: PPE (Personal Protective Equipment) Training in VR

- Virtual demonstrations of PPE usage
- Consequences of incorrect PPE usage
- Interactive donning and doffing exercises
- VR-based PPE compliance quizzes
- User tracking for performance
- **Case Study: Warehouse VR PPE training program**

Module 6: AR-Assisted Equipment Handling & Machinery Safety

- Equipment familiarization using AR
- Safe machine operation training
- Overlaid safety protocols in real-time
- Preventive maintenance procedures
- Reducing mechanical accidents with AR
- **Case Study: AR forklift operation module**

Module 7: Fall Protection & Working at Heights VR Training

- Simulated height-based scenarios
- Fall arrest systems demo in VR
- Reaction timing training
- Weather-related height hazards
- Harness inspection training
- **Case Study: Telecom tower VR fall prevention training**

Module 8: Confined Space Training Simulations

- Identifying confined space hazards
- Oxygen level and gas leak simulation
- Entry/exit strategies in VR
- AR for equipment support
- Rescue protocols in simulations
- **Case Study: Sewer maintenance confined space VR training**

Module 9: Fire Safety & Suppression Techniques in VR

- Types of fires and extinguishers
- Fire detection and suppression systems

- Evacuation strategies in fire scenarios
- Safe extinguisher usage in VR
- Fire prevention protocols
- **Case Study: VR fire hazard response in hotel environments**

Module 10: Electrical Safety with Augmented Reality

- Circuit fault identification using AR
- High voltage danger zones
- Lockout/tagout (LOTO) simulations
- AR-guided electrical troubleshooting
- Visualizing arc flash scenarios
- **Case Study: AR-enhanced electrical panel inspection**

Module 11: Psychological Safety and Stress Simulation

- Stress and burnout signs
- Simulated stress-inducing environments
- Role-play for de-escalation
- Mindfulness VR environments
- Safety culture enhancement tools
- **Case Study: VR for burnout detection among EMTs**

Module 12: Incident Response Planning with VR

- Crisis scenario simulation
- Decision-tree-based training
- Team communication and coordination
- Role-specific crisis roles
- Post-incident debrief via VR
- **Case Study: Factory explosion VR response training**

Module 13: Compliance and Regulatory Training via VR/AR

- OSHA and ISO compliance simulations
- Mock safety audits in VR
- Regulatory updates in immersive format
- GDPR and data tracking in VR
- Reporting and documentation features
- **Case Study: VR OSHA 10-Hour course implementation**

Module 14: Integrating AI with VR/AR for Smart Training

- Predictive safety analytics
- Machine learning for behavior prediction
- Adaptive training paths
- AI-based performance scoring
- IoT and digital twin integration
- **Case Study: AI-driven safety improvement in mining operations**

Module 15: Developing and Implementing Custom VR/AR Training

- Planning training objectives
- Storyboarding immersive scenarios
- Collaboration with developers
- Pilot testing and feedback loop

- Budgeting and ROI analysis
- **Case Study: Custom-built VR for airline maintenance crew**

Training Methodology

- Hands-on immersive learning using VR/AR headsets
- Scenario-based training simulations with guided debriefs
- Interactive case study analysis and peer discussion
- Blended learning with online modules and live workshops
- Performance assessments through real-time data and feedback
- Custom development tools for tailoring safety simulations

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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

Register Online Now

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