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COURSE BROCHURE

# Advanced Metaverse Development with VR and AR Training Course

15 – 26 March 2027
Rome

# Advanced Metaverse Development with VR and AR Training Course

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Metaverse Development with VR and AR is a 2-week advanced training course for innovation managers, digital experience leads and technical product owners who plan and steer immersive VR and AR experiences, and who leave with an immersive project blueprint. Organisations now use headsets and phone-based AR for training, retail and field operations, yet many projects stall after a flashy demo. Jupiter Prime Training runs this course for leaders turning immersive ideas into measurable products.

## Why Metaverse Development with VR and AR Matters Now

Three forces shape this subject today: lighter standalone headsets and capable phones that widen reach, generative AI tools that cut the cost of 3D content, and rising concern about user safety and biometric privacy in virtual spaces. An organisation that scopes immersive work carefully gains faster skills transfer, richer product experiences and safer field work; one that chases novelty wastes budget on unused hardware. The course rests on ISO/IEC 42001, the international standard for an artificial intelligence management system, and the NIST AI Risk Management Framework NIST AI RMF for governing AI-generated characters and assets inside immersive products.

## Who Gains Most from Metaverse Development with VR and AR

- Leaders who own innovation portfolios and decide which immersive concepts receive funding
- Managers responsible for customer or employee digital experience across channels
- Product owners who write requirements for VR and AR builds and accept releases
- Learning and operations heads who commission simulations and field guidance
- Technical leads who choose engines, devices and 3D content pipelines

Innovation groups gain most when a product owner, an experience designer and an operations sponsor attend together, because each immersive build depends on all three perspectives.

## Metaverse Development with VR and AR Capabilities

Participants leave able to scope, specify and evaluate VR and AR experiences that earn their place in the organisation rather than ending as demonstrations.

- Assess which business problems justify VR, AR or mixed reality — innovation boards allocating budget
- Design storyboards and spatial interactions that suit real users — experience designers and developers
- Specify 3D asset pipelines, formats and device choices — technical teams and procurement
- Apply safety, privacy and digital ownership controls — legal, security and HR reviewers
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Calculate immersive project value using defined KPIs — sponsors deciding whether to scale
- Communicate an immersive roadmap from pilot to deployment — executive committees

## Key Metaverse Development with VR and AR Terms

- Metaverse — a network of persistent, shared three-dimensional virtual spaces where people interact through avatars and digital objects.
- Virtual reality — a fully computer-generated environment viewed through a headset that replaces the user's physical surroundings.
- Augmented reality — digital content overlaid on the real world through a phone, tablet or see-through headset.
- Photogrammetry — creating 3D models from many overlapping photographs of a real object or space.
- Spatial anchor — a fixed reference point that keeps virtual content in the same physical position across sessions.
- Cybersickness — nausea or discomfort caused by mismatch between visual motion in a headset and the body's sense of movement.

## Metaverse Development with VR and AR Day by Day

## Day 1: Immersive Technology Landscape

- Reality Spectrum Map — Placing VR, AR and Mixed Reality Against Business Needs
- Enterprise Metaverse Use Cases — Training, Retail Showrooms and Remote Operations
- Headset and Mobile AR Device Classes — Matching Hardware to Context
- Platform Ecosystems Such as Unity and Unreal Engine — Lock-In and Skills Implications
- Immersive Opportunity Screen — Ranking Ideas by Learning, Sales or Safety Gain

## Day 2: Experience Strategy and Scoping

- Immersive Experience Brief — Audience, Goal, Setting and Session Length
- Storyboarding in 3D Space — Sequencing Scenes Before Any Build
- Build, Buy or Configure Choice — Studios, Templates and No-Code Builders
- Minimum Viable Immersive Experience — Scoping a Testable First Release
- Stakeholder Demo Planning — Securing Sponsor Buy-In with Prototypes

## Day 3: 3D Asset Pipelines

- Photogrammetry and 3D Scanning — Capturing Real Equipment and Spaces
- Polygon Budgets and Level of Detail — Performance on Standalone Headsets
- Texture, Lighting and Materials — Realism Versus Frame Rate Trade-Offs
- Asset Formats Such as glTF and USD — Reuse Across Platforms
- Digital Asset Libraries — Versioning and Ownership of 3D Content

## Day 4: Spatial Interaction Design

- Locomotion Options — Teleport, Smooth Movement and Comfort Settings
- Hand Tracking and Controller Input — Choosing Natural Interactions
- Spatial User Interface Placement — Menus, Labels and Readability at Depth
- Audio and Haptic Cues — Guiding Attention Without Clutter
- Accessibility in Immersive Spaces — Seated Use, Captions and Colour Contrast

## Day 5: Augmented Reality for Operations

- Marker-Based and Markerless Tracking — Anchoring Content to the Physical World
- Remote Expert Assistance — Annotated Guidance for Field Technicians
- Step-by-Step AR Work Instructions — Maintenance and Assembly Cases from Manufacturing
- Digital Twin Overlays — Live Equipment Data in the Field of View
- Retail AR Try-On and Placement — Product Visualisation for Shoppers

## Day 6: Virtual Reality for Training and Simulation

- Scenario-Based VR Simulation — Rehearsing High-Risk Tasks Safely
- Branching Scenario Logic — Consequences That Respond to Learner Choices
- Performance Capture in VR — Tracking Decisions, Timing and Errors
- Multi-User Virtual Spaces — Team Drills and Collaborative Walkthroughs
- Healthcare and Energy Sector Simulation Examples

## Day 7: AI-Generated Content in Immersive Worlds

- Text-to-3D and Generative Texture Tools — Speeding Asset Creation
- AI Characters and Conversational Avatars — Scripting Believable Guides
- Procedural Scene Generation — Building Varied Environments Quickly
- Quality and Rights Checks on Generated Assets — Avoiding Infringement
- ISO/IEC 42001 and NIST AI RMF — Governing AI Components in Immersive Products

## Day 8: Digital Ownership, Safety and Trust

- Digital Asset Ownership Models — Licences, Tokens and Platform Terms
- Blockchain Use in Virtual Goods — Where Provenance Adds Real Value
- User Safety and Moderation — Harassment, Personal Space and Reporting
- Privacy of Biometric and Movement Data — Eye, Hand and Location Tracking
- Cybersickness and Physical Safety — Session Limits and Play Area Rules

## Day 9: Measuring Immersive Business Value

- Immersive KPI Framework — Learning Retention, Conversion and Error Reduction
- In-Experience Analytics — Heatmaps, Dwell Time and Completion Funnels
- Cost Model for Immersive Projects — Hardware, Content and Support
- A/B Comparison with Conventional Methods — Proving Incremental Gain
- Scaling Roadmaps — From Pilot Headsets to Fleet Deployment

## Day 10: Practising the Immersive Project Blueprint

- Opportunity Screen Applied — Selecting a Real Use Case from Participants' Organisations
- Storyboard and Interaction Sketch — Combining Scoping and Spatial Design Methods
- Asset and Device Plan — Pipeline, Formats and Hardware Choices
- Safety, Ownership and KPI Set — Applying Trust and Value Measures
- Immersive Project Blueprint — Completing and Presenting the Final Document

## Applying Metaverse Development with VR and AR After the Course

- Run an immersive opportunity screen with sponsors and agree one use case and success KPIs for a first release
- Draft a safety, privacy and ownership checklist for the chosen experience and review it with legal and security colleagues

## Metaverse Development with VR and AR Questions FAQ

### What is metaverse development with VR and AR, and why does it matter now?

It is the planning and building of immersive virtual and augmented experiences for business use. It matters now because devices are lighter, content tools faster, and organisations need evidence that immersive projects improve training, sales or operations.

### Which roles gain most from metaverse development with VR and AR?

Innovation managers, digital experience leads and technical product owners gain most. You decide which immersive concepts proceed, shape user experience or accept builds, so you need scoping, design and value measures.

### How does metaverse development with VR and AR training differ from a general digital transformation course?

It focuses on immersive products specifically: 3D pipelines, spatial interaction, device choice, user safety and immersive KPIs. A general course covers broad technology change, whereas this subject equips you to plan and judge VR and AR builds.

### What do you bring back from metaverse development with VR and AR training?

You bring back a blueprint for one real immersive project. It covers the use case, storyboard, asset and device plan, safety and ownership controls, and the KPIs for deciding whether to scale.

## Metaverse Development with VR and AR: The Way Forward

The immersive project blueprint first informs whether a chosen use case moves to a funded first release. Product owners, experience designers and operations sponsors use it to agree storyboards, device choices and success measures. After the first user sessions, revisit comfort settings and KPI targets, because real users reveal motion tolerance and engagement patterns that internal testers rarely show.