Mega Construction Project Management Training Course

Professional Development Training Course Outline

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

Course Introduction

Mega Construction Project Management Training Course is designed to equip professionals with the advanced knowledge and practical skills required to successfully plan, execute, monitor, and deliver large-scale construction projects. As governments and private investors continue investing in smart cities, transportation networks, renewable energy, industrial plants, commercial developments, and megaprojects, organisations require professionals capable of managing complex project environments while ensuring schedule certainty, budget optimisation, quality excellence, sustainability, and stakeholder satisfaction. This course integrates internationally recognised project management frameworks with modern construction management practices, Digital Transformation, Building Information Modelling (BIM), Artificial Intelligence (AI), Lean Construction, Integrated Project Delivery (IPD), Risk-Based Decision Making, ESG Compliance, Digital Twins, Earned Value Management (EVM), Agile Project Controls, Data Analytics, Contract Management, Claims Management, and Smart Infrastructure Delivery.

Participants will gain practical expertise through interactive workshops, international case studies, simulations, collaborative discussions, and hands-on exercises covering every phase of mega construction projects from feasibility studies and procurement to commissioning and project close-out. The programme emphasises leadership, governance, innovation, sustainability, digital project controls, advanced scheduling, procurement strategies, stakeholder engagement, commercial management, and emerging technologies transforming the construction industry. By the end of the course, participants will be able to lead multidisciplinary teams, manage complex project risks, optimise resources, improve productivity, strengthen governance, minimise disputes, and deliver high-value infrastructure projects that achieve strategic organisational objectives while meeting global best practices.

Programme Curriculum

Mega Construction Project Management Training Course

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Course Duration

10 days

Course Objectives

Upon completion of this training, participants will be able to:

1. Master Mega Construction Project Planning and Execution strategies.
2. Apply Building Information Modelling (BIM) for integrated project delivery.
3. Implement Artificial Intelligence (AI) and digital technologies in construction management.
4. Develop effective Risk Management and Enterprise Risk Mitigation frameworks.
5. Improve Project Cost Control, Budget Optimisation, and Financial Governance.
6. Apply Advanced Primavera P6 and Critical Path Method (CPM) Scheduling techniques.
7. Strengthen Contract Administration, FIDIC Contracts, and Claims Management.
8. Implement Lean Construction and Agile Project Management methodologies.
9. Enhance Project Leadership, Stakeholder Engagement, and Change Management.
10. Integrate Sustainability, ESG, Green Construction, and Net-Zero Infrastructure principles.
11. Improve Construction Quality Management, HSE Excellence, and Regulatory Compliance.
12. Utilise Digital Twins, IoT, Data Analytics, and Smart Construction Technologies.
13. Successfully deliver Complex Mega Infrastructure Projects using global best practices.

Target Audience

1. Project Managers
2. Construction Managers
3. Civil Engineers

4. Project Directors
5. Quantity Surveyors
6. Consultants and Contractors
7. Infrastructure Development Professionals
8. Government and Public Sector Project Officials

Course Modules

Module 1: Fundamentals of Mega Construction Project Management

- Characteristics of mega construction projects
- Project life cycle management
- Governance structures
- Project success factors
- **Case Study:** International airport development project

Module 2: Strategic Project Planning

- Project initiation
- Feasibility analysis
- Business case development
- Strategic alignment
- **Case Study:** National highway expansion programme

Module 3: Advanced Project Scheduling

- Primavera P6
- Critical Path Method (CPM)
- Resource scheduling
- Schedule optimisation
- **Case Study:** Metro rail construction project

Module 4: Cost Management and Financial Control

- Cost estimation
- Budget development
- Earned Value Management (EVM)
- Cash flow forecasting
- **Case Study:** Large commercial development

Module 5: Risk Management

- Risk identification
- Quantitative risk analysis
- Risk response planning
- Opportunity management
- **Case Study:** Hydroelectric dam project

Module 6: Contract Management and Procurement

- Procurement strategies
- FIDIC contracts

- Claims management
- Dispute resolution
- **Case Study:** International EPC project

Module 7: Building Information Modelling (BIM)

- BIM fundamentals
- 4D and 5D BIM
- Collaboration platforms
- Digital workflows
- **Case Study:** Smart hospital construction

Module 8: Artificial Intelligence and Digital Construction

- AI applications
- Machine learning
- Predictive analytics
- Digital Twins
- **Case Study:** Smart city infrastructure

Module 9: Quality Management

- QA/QC systems
- Inspection planning
- Compliance management
- Continuous improvement
- **Case Study:** Industrial manufacturing facility

Module 10: Health, Safety and Environmental Management

- Construction safety
- Risk prevention
- Environmental compliance
- Incident management
- **Case Study:** Offshore construction project

Module 11: Leadership and Stakeholder Management

- Leadership styles
- Communication strategies
- Conflict management
- Stakeholder engagement
- **Case Study:** International infrastructure consortium

Module 12: Lean Construction and Productivity Improvement

- Lean principles
- Value stream mapping
- Waste reduction
- Continuous improvement
- **Case Study:** High-rise residential development

Module 13: Sustainability and ESG

- Green construction
- Carbon reduction
- Circular economy
- ESG reporting
- **Case Study:** Net-zero commercial building

Module 14: Project Monitoring and Performance Control

- KPI development
- Dashboard reporting
- Data analytics
- Performance measurement
- **Case Study:** National infrastructure programme

Module 15: Project Close-Out and Lessons Learned

- Commissioning
- Project handover
- Knowledge management
- Benefits realisation
- **Case Study:** International airport terminal completion

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	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
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