Advanced Infrastructure Project Management (PMP, PRINCE2 Aligned) Training Course

Professional Development Training Course Outline

Category	Civil Engineering and Infrastructure Management	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Modern infrastructure projects, ranging from high-speed rail networks and smart cities to complex energy grids and resilient water systems, are characterized by their immense scale, inherent complexity, and multidisciplinary nature. These colossal undertakings often involve a multitude of diverse stakeholders, intricate regulatory environments, significant financial investments, and prolonged delivery timelines, making their successful execution a formidable challenge. In such an environment, the application of advanced project management methodologies?particularly those aligned with globally recognized standards like the Project Management Professional (PMP) credential from the Project Management Institute (PMI) and the PRINCE2 framework?becomes not just beneficial but indispensable. These methodologies provide the structured approach necessary for navigating complexities, ensuring efficient resource utilization, proactively mitigating risks, and ultimately achieving project objectives on time and within budget. Advanced Infrastructure Project Management (PMP, PRINCE2 Aligned) Training Course is meticulously designed to provide participants with an in-depth understanding and practical application of advanced project management principles specifically tailored for the unique challenges of infrastructure development. The curriculum will focus on mastering comprehensive project planning, executing complex procurements, optimizing resource allocation, implementing robust risk and quality management strategies, and leading multidisciplinary teams within the context of large-scale infrastructure initiatives. The course will thoroughly explore the integration of PMP knowledge areas (including Integration, Scope, Schedule, Cost, Quality, Resources, Communications, Risk, Procurement, and Stakeholder Management) with the core PRINCE2 principles (such as Continued Business Justification, Learn from Experience, Manage by Stages, Manage by Exception, Focus on Products, Tailor to Suit the Project Environment, and Defined Roles and Responsibilities). Participants will engage with practical tools for project scheduling, financial modeling, earned value management, and conflict resolution, supplemented by real-world case studies drawn from successful infrastructure mega-projects globally. Through a balanced blend of essential theoretical foundations, extensive hands-on exercises, scenario-based learning, and discussions on ethical considerations, this course will comprehensively prepare attendees to confidently lead and deliver complex

infrastructure projects to global standards.

Programme Curriculum

Advanced Infrastructure Project Management (PMP, PRINCE2 Aligned) Training Course

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Course Objectives

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

1. Analyze the fundamental principles and methodologies of advanced project management for complex infrastructure projects.
2. Comprehend the core tenets and processes of both the Project Management Professional (PMP) framework and PRINCE2 methodology.
3. Master techniques for comprehensive project planning, scope definition, and work breakdown structures tailored for infrastructure.
4. Develop expertise in advanced schedule management, critical path analysis, and resource leveling for mega-projects.

5. Formulate strategies for robust cost estimation, budgeting, and earned value management in infrastructure contexts.
6. Understand the critical role of quality assurance, quality control, and continuous improvement in infrastructure delivery.
7. Implement robust approaches to identifying, analyzing, and mitigating complex risks specific to infrastructure projects.
8. Explore key strategies for effective stakeholder engagement, communication management, and conflict resolution in large-scale projects.
9. Apply methodologies for strategic procurement management, contract administration, and vendor performance oversight.
10. Understand the importance of team leadership, motivation, and ethical considerations in advanced project management.
11. Develop preliminary skills in utilizing advanced project management software and analytical tools.
12. Design a comprehensive project management plan for a complex infrastructure project, incorporating PMP and PRINCE2 principles.
13. Examine global best practices and future trends in infrastructure project management, including digital transformation and sustainability.

Target Audience

This course is ideal for professionals seeking to lead complex infrastructure projects to global standards:

1. Senior Project Managers: Seeking to enhance skills for complex infrastructure projects.
2. Program Managers: Overseeing multiple interconnected infrastructure projects.
3. Civil & Structural Engineers: Transitioning into leadership project management roles.
4. Construction Managers: Managing large-scale construction phases of infrastructure.
5. Government Officials: Involved in infrastructure policy, procurement, and oversight.
6. Consultants: Providing project management advisory services for infrastructure.
7. Infrastructure Development Specialists: Focusing on planning and executing large projects.
8. Engineers & Architects: Aiming for PMP/PRINCE2 certification and advanced roles.

Course Duration: 10 Days

Course Modules

- **Module 1: Advanced Project Management Overview and Infrastructure Context**
  - Recapitulate fundamental project management concepts and their application.
  - Discuss the unique characteristics and challenges of infrastructure mega-projects.
  - Understand the strategic importance of effective project management for national development.
  - Explore the project lifecycle phases in large infrastructure initiatives.
  - Identify success factors and common failure points in infrastructure projects.
- **Module 2: PMP Framework: Integration Management**
  - Comprehend the role of Project Integration Management in unifying project processes.
  - Learn about developing a comprehensive Project Charter for infrastructure projects.
  - Master techniques for creating a robust Project Management Plan.
  - Discuss managing project work, knowledge, and changes effectively.
  - Apply integration principles to a complex infrastructure case study.
- **Module 3: PMP Framework: Scope Management**
  - Develop expertise in planning and defining project scope for large infrastructure.
  - Learn about creating detailed Work Breakdown Structures (WBS) for complex deliverables.
  - Master techniques for validating and controlling scope changes in dynamic environments.

    - Discuss the importance of requirements traceability for infrastructure projects.
    - Apply scope management principles to prevent scope creep in a hypothetical project.
- **Module 4: PMP Framework: Schedule Management**
    - Formulate strategies for advanced schedule planning and development.
    - Understand techniques for defining activities, sequencing, and estimating durations for infrastructure.
    - Explore critical path method (CPM) and program evaluation and review technique (PERT) for complex schedules.
    - Discuss resource leveling, schedule compression, and agile scheduling in infrastructure.
    - Apply scheduling tools and techniques to optimize a major infrastructure timeline.
- **Module 5: PMP Framework: Cost Management & Earned Value**
    - Understand the principles of comprehensive cost estimation and budgeting for infrastructure projects.
    - Implement robust approaches to controlling project costs and managing cash flow.
    - Explore techniques for earned value management (EVM) for performance monitoring.
    - Discuss financial forecasting, budget variances, and corrective actions.
    - Apply EVM to assess the financial health of an ongoing infrastructure project.
- **Module 6: PMP Framework: Quality Management**
    - Develop expertise in planning and implementing quality management in infrastructure.
    - Learn about quality assurance (QA) and quality control (QC) processes for construction and engineering.
    - Master techniques for ensuring compliance with industry standards and regulations.
    - Discuss continuous improvement methodologies (e.g., Lean, Six Sigma) in project quality.
    - Apply quality management tools (e.g., flowcharts, Ishikawa diagrams) to improve infrastructure processes.
- **Module 7: PMP Framework: Resource Management**
    - Comprehend the principles of planning, acquiring, and developing project team resources.
    - Learn about managing physical resources (equipment, materials) in large-scale projects.
    - Master techniques for team development, conflict resolution, and performance management.
    - Discuss organizational structures and their impact on resource allocation.
    - Apply resource management strategies to optimize team performance on an infrastructure project.
- **Module 8: PMP Framework: Communications Management**
    - Formulate strategies for effective communications planning and execution.
    - Understand the importance of information distribution, performance reporting, and stakeholder communication.
    - Explore techniques for managing stakeholder expectations and engaging diverse groups.
    - Discuss communication technologies and overcoming barriers in large, distributed teams.
    - Apply communication planning to enhance stakeholder engagement in an infrastructure project.
- **Module 9: PMP Framework: Risk Management**
    - Understand the critical role of risk identification, analysis (qualitative & quantitative), and response planning.
    - Implement robust approaches to monitoring and controlling risks throughout the project lifecycle.
    - Explore techniques for managing unforeseen events and developing contingency plans.
    - Discuss risk tolerance, risk appetite, and developing a risk register for infrastructure.
    - Apply risk management tools and techniques to a major infrastructure project scenario.
- **Module 10: PMP Framework: Procurement Management**
    - Develop expertise in strategic procurement planning and contract administration for infrastructure.
    - Learn about various contract types (fixed-price, cost-reimbursable, T&M) and their applications.

    - Master techniques for conducting procurements, managing seller relationships, and contract closure.
    - Discuss ethical considerations and legal aspects of procurement in large projects.
    - Apply procurement principles to develop a procurement strategy for an infrastructure component.
- **Module 11: PRINCE2 Principles and Themes**
    - Understand the 7 principles of PRINCE2 (e.g., Continued Business Justification, Manage by Stages).
    - Explore the 7 themes of PRINCE2 (e.g., Business Case, Organization, Quality, Risk, Plan, Change, Progress).
    - Discuss the key roles and responsibilities within a PRINCE2 project structure.
    - Learn about PRINCE2's focus on products and management by exception.
    - Apply PRINCE2 principles to structure a hypothetical infrastructure project.
- **Module 12: Future Trends, Digital Transformation, and Capstone Project**
    - Examine global best practices and innovative approaches in infrastructure project management.
    - Explore the impact of digital transformation (BIM, AI, data analytics) on project delivery.
    - Discuss sustainability, resilience, and circular economy principles in infrastructure projects.
    - Apply learned methodologies to develop a comprehensive Project Management Plan (PMP/PRINCE2 aligned) for a chosen infrastructure project.
    - Present and defend the developed project plan, incorporating feedback and lessons learned.

Training Methodology

- **Interactive Workshops:** Facilitated discussions, group exercises, and problem-solving activities.
- **Case Studies:** Real-world examples to illustrate successful community-based surveillance practices.
- **Role-Playing and Simulations:** Practice engaging communities in surveillance activities.
- **Expert Presentations:** Insights from experienced public health professionals and community leaders.
- **Group Projects:** Collaborative development of community surveillance plans.
- **Action Planning:** Development of personalized action plans for implementing community-based surveillance.
- **Digital Tools and Resources:** Utilization of online platforms for collaboration and learning.
- **Peer-to-Peer Learning:** Sharing experiences and insights on community engagement.
- **Post-Training Support:** Access to online forums, mentorship, and continued learning resources.

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

- 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

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