Earned Value Management (EVM) for Construction Projects 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

Construction projects, with their inherent complexity, long durations, and significant capital outlays, frequently face formidable challenges in maintaining stringent control over costs and schedules. Traditional performance measurement methods often provide fragmented or lagging indicators, making it inherently difficult for project managers to accurately assess project health, identify emerging problems early, and reliably forecast future performance. In this dynamic environment, Earned Value Management (EVM) emerges as a powerful, integrated project control methodology that provides an objective and quantitative measure of project performance. EVM enables stakeholders to gain real-time, comprehensive insights into whether a project is truly on track, falling behind schedule, or exceeding its budget, thereby facilitating timely corrective actions and significantly improving overall project predictability. Earned Value Management (EVM) for Construction Projects Training Course is meticulously designed to provide participants with a comprehensive understanding and practical application of Earned Value Management principles and techniques specifically tailored for construction projects. The curriculum will encompass mastering the core EVM metrics (Planned Value, Earned Value, Actual Cost), rigorously calculating and interpreting crucial performance variances (Schedule Variance, Cost Variance), and effectively utilizing vital performance indices (Schedule Performance Index, Cost Performance Index). The course will delve into advanced EVM concepts such as accurate forecasting (Estimate at Completion, Estimate To Complete), sophisticated performance reporting, and the seamless integration of EVM with contemporary project scheduling and budgeting tools. Through detailed case studies from diverse construction projects, hands-on exercises in EVM calculations, practical application using industry-standard project management software, and insightful discussions on overcoming real-world implementation challenges, participants will be thoroughly equipped to effectively monitor, control, and forecast construction project performance, ultimately enhancing project success and bolstering stakeholder confidence.

Programme Curriculum

Earned Value Management (EVM) for Construction Projects Training Course

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Course Objectives

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

1. Analyze the fundamental principles and benefits of Earned Value Management (EVM) for construction projects.
2. Comprehend the core EVM metrics: Planned Value (PV), Earned Value (EV), and Actual Cost (AC).
3. Master techniques for calculating and interpreting Schedule Variance (SV) and Cost Variance (CV).
4. Develop expertise in calculating and utilizing Schedule Performance Index (SPI) and Cost Performance Index (CPI).
5. Formulate strategies for accurate forecasting of Estimate At Completion (EAC) and Estimate To Complete (ETC).
6. Understand the critical role of the Work Breakdown Structure (WBS) and Organizational Breakdown Structure (OBS) in EVM.
7. Implement effective processes for establishing a performance measurement baseline (PMB) for construction projects.
8. Explore key strategies for integrating EVM with project scheduling and budgeting processes.
9. Apply methodologies for generating comprehensive EVM performance reports and dashboards.
10. Understand the importance of using EVM for identifying project performance trends and taking corrective actions.
11. Develop preliminary skills in utilizing project management software to implement EVM.

12. Design an EVM implementation plan for a hypothetical construction project.
13. Examine global best practices, common pitfalls, and advanced applications of EVM in construction.

Target Audience

This course is ideal for professionals involved in project planning, control, and financial oversight in construction:

1. Project Managers: Leading construction projects.
2. Project Controls Managers & Engineers: Responsible for monitoring project performance.
3. Quantity Surveyors: Involved in cost tracking and forecasting.
4. Cost Engineers & Analysts: Specializing in project cost control.
5. Construction Managers: Overseeing site operations and budget adherence.
6. Program Managers: Managing portfolios of construction projects.
7. Finance Professionals: Responsible for project financial reporting and analysis.
8. Consultants: Providing project management and control advisory services.

Course Duration: 10 Days

Course Modules

- **Module 1: Introduction to Project Performance Measurement**
  - Define project performance measurement and its importance in construction.
  - Discuss the limitations of traditional cost and schedule tracking methods.
  - Understand the concept of integrated project management and control.
  - Explore the need for objective, quantifiable metrics for project health.
  - Identify the strategic benefits of effective performance measurement.
- **Module 2: Fundamentals of Earned Value Management (EVM)**
  - Comprehend the core philosophy and benefits of EVM.
  - Learn about the key components: Planned Value (PV), Earned Value (EV), Actual Cost (AC).
  - Master techniques for collecting and organizing data for EVM calculations.
  - Discuss the importance of a well-defined scope and work breakdown structure (WBS).
  - Apply the foundational EVM terms to a simple project example.
- **Module 3: Establishing the Performance Measurement Baseline (PMB)**
  - Develop expertise in creating a robust Performance Measurement Baseline.
  - Learn about the process of scope definition, scheduling, and budgeting for EVM.
  - Master techniques for integrating the WBS with the project schedule and cost accounts.
  - Discuss the importance of baseline integrity and change control in EVM.
  - Apply PMB establishment principles to a construction project scenario.
- **Module 4: Performance Variances: SV and CV**
  - Formulate strategies for calculating and interpreting Schedule Variance (SV).
  - Understand the meaning and implications of positive, negative, and zero SV.
  - Explore techniques for calculating and interpreting Cost Variance (CV).
  - Discuss the relationship between SV, CV, and overall project performance.
  - Apply SV and CV calculations to real-world construction project data.
- **Module 5: Performance Indices: SPI and CPI**
  - Understand the critical role of Schedule Performance Index (SPI) in assessing schedule efficiency.

    - Implement robust approaches to calculating and interpreting SPI.
    - Explore techniques for calculating and utilizing Cost Performance Index (CPI) for cost efficiency.
    - Discuss the implications of SPI and CPI values (e.g., >1, <1, =1).
    - Apply SPI and CPI calculations to monitor ongoing project performance.
- **Module 6: Forecasting: EAC and ETC**
    - Develop expertise in forecasting future project costs and completion dates.
    - Learn about different methods for calculating Estimate At Completion (EAC).
    - Master techniques for calculating Estimate To Complete (ETC).
    - Discuss the impact of performance trends (CPI, SPI) on EAC and ETC.
    - Apply various forecasting techniques to predict the final outcome of a construction project.
- **Module 7: EVM Reporting and Analysis**
    - Comprehend the principles of generating comprehensive EVM performance reports.
    - Learn about creating effective EVM dashboards and graphical representations.
    - Master techniques for presenting EVM data to different stakeholders.
    - Discuss the use of variance analysis and trend analysis for informed decision-making.
    - Apply reporting best practices to communicate project health clearly and concisely.
- **Module 8: Integrating EVM with Project Controls**
    - Formulate strategies for seamlessly integrating EVM with other project control processes.
    - Understand the relationship between EVM, project scheduling, and cost control systems.
    - Explore techniques for using EVM data in risk management and change management.
    - Discuss the role of EVM in driving corrective actions and performance improvements.
    - Apply integrated control concepts to a complex construction project.
- **Module 9: Advanced EVM Concepts and Applications**
    - Develop expertise in advanced EVM metrics such as To Complete Performance Index (TCPI).
    - Learn about earned schedule (ES) and its benefits for schedule performance analysis.
    - Master techniques for applying EVM in different contract types (e.g., fixed-price, cost-plus).
    - Discuss the use of EVM in multi-project environments and program management.
    - Apply advanced EVM concepts to address specific construction project challenges.
- **Module 10: EVM Implementation Challenges and Success Factors**
    - Understand the critical challenges in implementing EVM in construction organizations.
    - Implement robust approaches to overcoming common obstacles (e.g., data quality, cultural resistance).
    - Explore techniques for gaining executive buy-in and building an EVM-friendly culture.
    - Discuss the importance of training, tools, and processes for successful EVM adoption.
    - Apply lessons learned from real-world EVM implementations to avoid pitfalls.
- **Module 11: EVM Software and Tools**
    - Comprehend the role of project management software in facilitating EVM implementation.
    - Learn about different software solutions with EVM capabilities (e.g., Primavera P6, MS Project).
    - Master techniques for setting up projects for EVM tracking in software.
    - Discuss the automation of EVM calculations and report generation.
    - Apply practical exercises using selected EVM-enabled software.
- **Module 12: Case Studies, Best Practices, and Future Trends**
    - Examine global case studies of successful EVM application in diverse construction projects.
    - Develop preliminary skills in evaluating the effectiveness of EVM in different scenarios.
    - Discuss emerging trends in project performance measurement and analytics (e.g., predictive analytics, AI).
    - Explore the future of EVM and its integration with digital construction technologies.

- Design a strategic roadmap for enhancing project control capabilities using EVM within an organization.

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

- Participants must be conversant in English.
- Upon completion of training, participants will receive an Authorized Training Certificate.
- The course duration is flexible and can be modified to fit any number of days.
- Course fee includes facilitation, training materials, 2 coffee breaks, buffet lunch, and a Certificate upon successful completion.
- One-year post-training support, consultation, and coaching provided after the course.
- Payment should be made at least a week before the training commencement to Fineskill Training Center account, as indicated in the invoice, to enable better preparation.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000

Start Date	End Date	Location	Price
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:

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