

Advanced Project and Construction Management





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Introduction:

The Advanced Project and Construction Management program offers professionals advanced skills in managing complex construction projects. It focuses on sophisticated methodologies and tools tailored to the industry's intricacies, in order to develop effective project leaders.

Program Objectives:

At the end of this program the participants will be able to:

- Gain essential knowledge of contracts and legal aspects.
- Learn to apply various types of agreements.
- Enhance commercial awareness to ensure contract efficiency.
- Identify and mitigate risks and their program implications.
- Understand the importance of checklists, file-management, and documentation standardization for risk reduction.
- Explore different project delivery systems and comprehend commercial liabilities from schedule changes and variations.
- Acquire skills in advanced scheduling, develop project control systems, and negotiate dispute resolution methods to prevent escalation through early identification.

Targeted Audience:

- Associate Project Managers, Project Managers, IT Project Managers, Senior Project Managers.
- Project Coordinators.
- · Project Analysts.
- · Project Leaders, Team Leaders.
- Product Managers, Program Managers.
- Project Sponsors and Project Team Members.

Program Outlines:



Unit 1:

The Basis of Contracting:

- Principles of Good Contracting and the rationale behind their use.
- Key steps in contract creation and the essential elements of a valid contract.
- · An overview of the tendering and contract award process, including its advantages and potential pitfalls.
- Differentiating between price and value and understanding various types of obligation documents.
- Considerations related to bonds, guarantees, letters of intent, awards, comfort, and side letters.
- Strategies for organizing and managing contract responsibilities, including basic planning, communication, and expectation management.

Unit 2:

Risks and Selecting The Right Contract Structure:

- Assess and allocate risk effectively, identifying potential risks and incorporating robust risk assessment practices into contract selection.
- Explore various contract types, including traditional options like lump sum and reimbursable, as well as newer models like EPC, BOT/BOOT, and Alliance/Partnering, understanding their implications on warranty management.
- Select appropriate contract types based on risk assessment and project requirements, ensuring effective risk management throughout the project lifecycle.

Major Contract Terms to Aid the Handling of Performance Issues:

- Effective handling of contract performance issues, including design and specification considerations, and the work ordering process with obligations to perform work.
- Understanding the transfer of ownership and risk of damage within contracts, alongside contract administration, reporting mechanisms, and cost control.
- Reviewing recovery clauses such as acceleration, insurance, and indemnities, as well as termination and suspension procedures within contract management.

Unit 3:

Managing Change Within a Contract:

- Understanding change, including changes to contract documents and variations in scope.
- · Managing changes effectively, considering increases, decreases, timing adjustments, and alterations in



working methods.

 Developing contract terms and conditions, including finding, modifying, and drafting standard form documents and special conditions.

Resolution of Disputes:

- Strategies for eliminating contract disputes, addressing errors, anticipating conflicts, and managing unknowns.
- Techniques for managing changes, expectations, and disputes through negotiation and alternative resolution methods.
- Overview of negotiation techniques, emphasizing compromise, and examination of dispute resolution methods such as litigation, arbitration, and mediation.

Unit 4:

Planning:

- Task characteristics and duration assessment methods, alongside planning and scheduling techniques.
- Differentiating between critical path and critical chain scheduling methods, and resource allocation strategies.
- Considering time-cost trade-offs, lead/lag scheduling, and the implementation of critical chain scheduling for effective project management.

Proactive Project Risk Management:

- Understanding the concept of risk, distinguishing it from uncertainty, and exploring attitudes towards risk.
- Methods for identifying, analyzing, and qualifying risks, including factors, sources, and approaches to risk analysis.
- Dealing with subjective elements of risk and developing risk strategies to effectively manage and mitigate potential impacts.

Unit 5:

Executing, Monitoring and Controlling:

- Lean construction strategies for efficient project delivery.
- Techniques for staff acquisition, team development, and motivation.
- Differentiating between leadership and management, exploring management styles, and conflict handling.



- Utilizing Earned Value to report project accomplishment effectively.
- Implementing risk strategies to mitigate project risks.
- Processes and considerations involved in project closing.