MERCURY

Construction Administration for Engineers

23 – 27 August 2027
Johannesburg (South Africa)



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Ref: 15228_1062609 **Date:** 23 – 27 August 2027 **Location:** Johannesburg (South Africa) **Fees:** 5300 Euro

Introduction:

Construction administration is a critical facet of engineering and construction projects. In this construction administration for engineers course, participants will delve into the challenges of administering medium to large-scale construction projects.

With the increasing pressures of globalization, there is a heightened need for effective project delivery, emphasizing time management, cost efficiency, and quality outputs.

An in-depth understanding of construction administration meaning and processes, such as project planning, estimating, scheduling, and execution control procedures, is essential.

Furthermore, a keen insight into how construction administration training can help alleviate costly project delays and improve communication is crucial for a construction administration engineer's success.

Targeted Groups:

- Engineers.
- Architects.
- Practicing Building Construction Inspectors.
- Project Engineers.
- NDE Lab Personnel.
- Technicians and Technologists involved with building construction.
- Contractors and Building Owners.

Course Objectives:

By the conclusion of this construction administration course, the participants will be capable of:

- Measure construction project progress effectively.
- Recognize the paramount importance of accurate record-keeping.
- Administer construction projects proficiently on-site.
- Enhance control of construction projects from initiation to close-out.
- Maintain construction project timelines and budget adherence.
- Minimize the risk of claims through effective communication strategies.
- Utilize information technology to facilitate project success.

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Targeted Competencies:

After this construction administration training, the participant's competencies will:

- Foundation in Construction Administration.
- Project Planning, Estimating, and Scheduling strategies.
- Proactive Project Management and Control Methods.
- Insight into Project Acceleration and Construction Claims Avoidance.
- Proficiency in Advanced Project Management Tools.

Definition and Certification in Construction Administration:

Construction administration can be defined as the comprehensive oversight of a construction project from start to finish to ensure that the project meets all quality, time, and budget specifications. For individuals seeking to formalize their knowledge in this domain, a construction administration certificate is attainable through programs that equip professionals with the necessary skills. This credential validates an individual's expertise and dedication to the field.

Course Content:

Unit 1: What is Construction Administration?

- The Construction Project Concept.
- Project Management Essentials.
- The Construction Stakeholders Roles.
- Leadership, Responsibility, and Decision-Making Authority in Projects.
- Various Management Styles and Their Impact.
- The Significance of Construction Contracts.
- Emphasizing Construction Safety.
- Understanding Different Project Delivery Systems.

Unit 2: The Construction Administration Process:

- Duration Estimation and Assessment Techniques.
- Planning and Scheduling Methods: From Theory to Application.
- Critical Path Method CPM Scheduling Fundamentals.
- Resource Allocation Strategies and Optimization.
- Exploration of Time-cost Trade-offs in Projects.
- Understanding Lead/Lag Scheduling Dynamics.
- Introduction to Critical Chain Project Management CCPM.

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Unit 3: Proactive Construction Administration Phase:

- Establish and Manage Project Baselines.
- The Earned Value Control Process for Project Monitoring.
- Quantifying Project Variance Analysis for Optimal Control.
- Analyzing Schedule Performance Index SPI and Cost Performance Index CPI.
- Proactive Productivity Measurement.

Unit 4: Construction Administration Training in Project Acceleration and Claims Avoidance:

- Identify Scenarios That Necessitate Project Acceleration.
- Explore Various Strategies to Fast-track Project Schedules.
- Schedule Crashing: Tactics and Implications.
- Avoid Construction Claims Through Strategic Planning.
- Manage Changes and Extra Work Without Derailing the Project.
- Understand the Intricacies of Construction Claims, Disputes, and Alternate Dispute Resolution Mechanisms.
- Reinforce Team Development and Maintaining Motivation in Projects.
- Adopt Effective Management Styles to Handle Conflicts and Challenges.

Unit 5: Construction Administration Certification in Advanced Project Management Tools:

- Leverage Project Management Software for Construction Administration.
- Integrate Building Information Modeling BIM for Enhanced Visualization and Control.
- Implement Lean Principles for Efficient Project Management.