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COURSE BROCHURE

Total Cost Management Cycle and Cost Engineering Practice Training Course

17 – 21 October 2027
Manama

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Registered in the United Kingdom and Saudi Arabia

Total Cost Management Cycle and Cost Engineering Practice Training Course

Ref: 2519_95654 **Date:** 17 – 21 October 2027 **Location:** Manama **Fees:** 4900 GBP

Total Cost Management Cycle and Cost Engineering Practice is a 1-week training course for cost engineers, cost analysts and project control specialists, built around a cost engineering practice case file that traces one asset from idea to close-out. Capital owners now expect every cost figure to be traceable from strategy to the next investment decision. Jupiter Prime Training delivers this course on total cost management and cost engineering practice.

Why Total Cost Management Cycle and Cost Engineering Practice Matters Now

Asset owners want portfolio decisions backed by whole-life cost, contractors face terms that punish weak change tracking, and finance functions want cost engineers to speak the language of capital budgets. An organisation that runs the cost cycle as one loop learns from each closed project; one that treats estimating, scheduling and control as silos repeats the same overruns. The course rests on the total cost management cycle of plan, measure, assess and improve, applied to both the portfolio and the single project.

Who Gains Most from Total Cost Management Cycle and Cost Engineering Practice

- Specialists who prepare and maintain cost baselines for capital assets
- Planners who link activity logic and resource loading to cost phasing
- Analysts who compare investment options using discounted cash flow
- Controllers who measure progress, report variances and forecast final cost
- Commercial staff who price changes, claims and contract adjustments

Project controls units that send estimators, planners and controllers together gain most, since the cycle relies on clean handovers.

Total Cost Management Cycle and Cost Engineering Practice Capabilities

Participants move from isolated cost tasks to a closed loop where every figure has an owner and a feedback path.

- Map the total cost management cycle for a portfolio and a project — capital sponsors
- Build a cost-loaded schedule tying work packages to budgets — project managers
- Calculate present worth, rate of return and payback for competing asset options — investment committees
- Apply progress measurement and performance indices to forecast final cost — steering boards
- Weigh change, risk and contingency against the control baseline — contract owners
- Communicate closed project lessons into cost databases — future appraisal teams

Key Total Cost Management Cycle and Cost Engineering Practice Terms

- Total cost management — a process that applies cost engineering skills across the life of an asset portfolio or project.
- Control baseline — the approved, time-phased cost and schedule plan used to measure performance.
- Work breakdown structure — a hierarchy dividing project scope into packages that carry cost and schedule data.
- Present worth — the value today of future cash flows discounted at a chosen rate.
- Cost performance index — the ratio of earned work value to actual cost, showing spending efficiency.
- Historical cost database — a record of closed project costs used to calibrate future estimates.

Total Cost Management Cycle and Cost Engineering Practice Day by Day

Day 1: The Cost Cycle and Its Stakeholders

- Plan, Measure, Assess, Improve Loop — Linking Portfolio and Project Cost Cycles
- Strategic Asset Planning Inputs — Which Investments Enter the Capital Pipeline
- Cost Engineering Roles and Interfaces — Who Owns Each Cost Figure
- Asset Life Stages and Phase Gates — When Funding Decisions Are Taken
- Whole-Life Cost Thinking — Balancing First Cost Against Operating Cost

Day 2: Cost Planning and Scheduling Methods

- Work Breakdown and Cost Breakdown Structures — Defining Packages for Control
- Estimate Classes and Maturity Levels — Choosing Detail for Each Gate
- Critical Path Logic and Float — Sequencing Work Against Cost Phasing
- Resource Loading and Levelling — Matching Labour Curves to Budgets
- Cost-Loaded Schedule Assembly — Setting the Time-Phased Control Baseline

Day 3: Engineering Economics and Option Appraisal

- Time Value of Money and Discount Rates — Comparing Cash Flows Fairly
- Present Worth, Rate of Return and Payback — Ranking Asset Alternatives
- Life-Cycle Cost Models — Renewal, Maintenance and Disposal Timing
- Sensitivity and Break-Even Tests — Which Assumptions Change the Ranking
- Escalation and Inflation Allowances — Protecting Long-Duration Capital Budgets

Day 4: Measuring Progress and Controlling Change

- Progress Measurement Rules — Weighted Milestones and Units Completed
- Earned Work Value and Performance Indices — Reading Efficiency Trends
- Forecast at Completion Methods — Choosing a Credible Final Cost
- Change Order Pricing and Trend Logs — Protecting the Control Baseline
- Risk-Based Contingency Drawdown — Releasing Reserves Against Evidence

Day 5: Practising the Cost Engineering Practice Case File

- Case Asset Option Appraisal — Applying Present Worth to Two Designs
- Case Baseline Build — Applying Cost Loading to the Chosen Option
- Case Performance Review — Applying Indices to Mid-Project Data
- Close-Out Lessons Capture — Feeding the Historical Cost Database
- Cost Engineering Practice Case File — Presenting the Full Cycle to Sponsors

Applying Total Cost Management Cycle and Cost Engineering Practice After the Course

- Run a cost cycle health check on one live project, tracing a package from appraisal to the latest forecast.
- Set up a close-out template capturing actual quantities, rates and change history.

Total Cost Management Cycle and Cost Engineering Practice Questions FAQ

What is the total cost management cycle and cost engineering practice, and why does it matter now?

It is the loop connecting asset appraisal, cost planning, progress control and lessons learned. It matters because owners want capital decisions backed by traceable whole-life cost.

Which roles gain most from total cost management cycle and cost engineering practice?

Estimators, planners, cost controllers, investment analysts and commercial staff gain most, especially where your role hands cost information to another stage.

How does total cost management cycle and cost engineering practice differ from a project cost estimating course?

It covers the whole loop rather than one stage. An estimating course goes deep on preparing a figure; this one follows that figure through appraisal, phasing, control and reuse.

What do you bring back from total cost management cycle and cost engineering practice?

You bring back a worked case file covering option appraisal, a cost-loaded baseline, a performance review and close-out lessons, ready to adapt to your own assets.

Total Cost Management Cycle and Cost Engineering Practice: The Way Forward

The cost engineering practice case file first informs which asset option a sponsor funds at the next phase gate. Planners, controllers and analysts then use it as a shared reference for baselines and forecasts. After its first live use, revisit the close-out section, since real lessons there sharpen later appraisals in energy and public infrastructure portfolios.