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COURSE BROCHURE

# Advanced Managing Shutdowns, Turnarounds and Outages Training Course

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Milan

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Registered in the United Kingdom and Saudi Arabia

# Advanced Managing Shutdowns, Turnarounds and Outages Training Course

**Ref:** 406_14447 **Date:** 12 – 23 April 2027 **Location:** Milan **Fees:** 12400 GBP

Advanced Managing Shutdowns, Turnarounds and Outages is a 2-week training course for turnaround managers, planners and operations leads who must take a running plant down, complete hundreds of jobs safely and return it to service on schedule, ending with a Turnaround Execution Plan. A single overrun on a refinery unit, power block or chemical train can erase a year of maintenance savings. Jupiter Prime Training runs this course for people who lead these events.

## Why Managing Shutdowns, Turnarounds and Outages Matter Now

Turnarounds are under pressure from longer run lengths between events, which push more deferred work into each window, from thinner pools of experienced contractor supervisors, and from owners who now judge turnaround leaders on cost, duration and safety at once. Organisations that manage these events well restart on time with fewer leaks and start-up trips; those that do not suffer scope creep, overtime and costly late restarts. The course uses EN 13306 for maintenance work categories in the work list and ISO 55001 to link each event to asset management objectives.

## Who Gains Most from Managing Shutdowns, Turnarounds and Outages

- Leaders who own turnaround cost, duration and safety targets
- Planners who build work packs, logic networks and resource histograms
- Operations leads who prepare units for handover, isolation and restart
- Contractor coordinators who mobilise crews, scaffolding and cranes
- Engineers who define inspection scope and integrity repairs during the event

A site turnaround organisation gains most when its turnaround manager, lead planner and operations representative attend together and return with one shared milestone schedule.

## Managing Shutdowns, Turnarounds and Outages Capabilities

Participants learn to control the event from the first scope request to the final lessons-learned record, balancing duration, cost and risk at each gate.

- Apply a work list challenge process to every scope request — the scope freeze decision
- Build a critical path schedule with resource levelling — the event duration commitment to leadership
- Design the turnaround organisation and contractor mobilisation plan — the mobilisation and logistics teams
- Specify shutdown and start-up safety controls — operations, permit issuers and contractor supervisors
- Calculate cost and progress using earned value — daily control meetings during execution
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Communicate a post-event review with measurable lessons — planning for the next turnaround

## Key Managing Shutdowns, Turnarounds and Outages Terms

- Scope freeze — the agreed date after which new work enters the turnaround only through a formal late-scope approval.
- Work list challenge — a structured review that accepts, defers or rejects each requested job before it is planned.
- Critical path — the longest chain of dependent activities that sets the minimum duration of the event.
- Readiness index — a measure of how far planning milestones are complete at each gate before the event starts.
- Emergent work — jobs discovered during execution, usually after equipment is opened and inspected.
- Earned value — a method comparing planned progress, actual progress and actual cost to forecast the final outcome.

## Managing Shutdowns, Turnarounds and Outages Day by Day

### Day 1: Turnaround Strategy and Business Drivers

- Run Length and Event Interval Decisions — Balancing Production and Risk
- Turnaround Objectives Charter — Safety, Duration, Cost and Quality Targets
- Phase-Gate Model for Turnarounds — Milestones From Initiation to Close
- EN 13306 Work Categories in the Work List — Consistent Classification
- Stakeholder Map — Operations, Engineering, Inspection and Contractors

### Day 2: Scope Development and Challenge

- Scope Request Sources — Inspection Findings, Deferred Work and Projects
- Work List Challenge Board — Accept, Defer or Reject Each Job
- Risk-Based Inspection Inputs — Prioritising Vessel and Piping Scope
- Scope Freeze and Late-Scope Procedure — Protecting the Plan
- Project Work Integration — Tie-Ins and Modifications During the Window

### Day 3: Detailed Planning and Work Packs

- Work Pack Content — Steps, Drawings, Permits and Materials
- Job Estimating for Turnarounds — Crew Sizes and Durations
- Long-Lead Materials Plan — Ordering Valves, Exchangers and Spares Early
- Isolation and Blind Lists — Planning Energy Separation
- Readiness Index Reviews — Verifying Planning Progress at Each Gate

## Day 4: Critical Path Scheduling

- Logic Network Construction — Dependencies Between Mechanical, Inspection and Process Jobs
- Critical Path Identification — Activities That Drive the Duration
- Resource Levelling and Histograms — Peak Manpower and Crane Use
- Schedule Risk Analysis — Probabilistic Durations for Key Equipment
- Shutdown and Start-Up Sequences — Operations Steps Inside the Schedule

## Day 5: Turnaround Organisation and Contractors

- Turnaround Organisation Chart — Roles, Shifts and Reporting Lines
- Contracting Strategy for Turnarounds — Lump-Sum, Unit-Rate and Alliance Options
- Contractor Mobilisation Plan — Induction, Accommodation and Site Access
- Scaffolding, Cranes and Heavy Lift Planning — Shared Resource Control
- Site Logistics Layout — Laydown Areas, Traffic and Waste Routes

## Day 6: Cost Estimating and Budget Control

- Turnaround Cost Estimate Classes — Accuracy at Each Gate
- Contingency for Emergent Work — Sizing From Inspection History
- Budget Breakdown and Cost Codes — Linking Jobs to Spend
- Earned Value Set-Up — Planned Value, Earned Value and Actual Cost
- Cost Approval Workflow — Authorising Emergent Work Quickly

## Day 7: Safety During Shutdowns

- Simultaneous Operations Assessment — Running Units Beside Live Work
- Permit-to-Work Volume Control — Issuer Capacity and Permit Coordination
- Confined Space and Hot Work Controls — Vessel Entry and Fire Watch
- Hydrocarbon-Free Verification — Purging, Gas Testing and Release
- Contractor Safety Leadership — Toolbox Talks and Field Observations

## Day 8: Execution Control

- Daily Control Meeting Structure — Progress, Issues and Look-Ahead
- Progress Measurement Methods — Steps Complete Versus Hours Burned
- Emergent Work Triage — Impact on Critical Path and Budget
- Shift Handover in Turnarounds — Continuity Across Day and Night Crews
- Recovery Scheduling — Regaining Lost Time Without Raising Risk

## Day 9: Restart and Post-Event Review

- Mechanical Completion and Box-Up Checks — Inspection Sign-Off Before Closure
- Pre-Start-Up Safety Review — Readiness to Introduce Hydrocarbons
- Start-Up Leak Testing and Monitoring — Catching Flange and Seal Leaks
- Post-Event Review Method — Duration, Cost, Safety and Quality Variances
- Lessons Learned Register — Feeding the Next Turnaround Plan

## Day 10: Practising the Turnaround Execution Plan

- Scope Challenge Results Applied — Confirming the Frozen Work List
- Critical Path and Resource Findings Applied — Setting the Milestone Schedule
- Contractor and Safety Arrangements Applied — Finalising Mobilisation Controls
- Cost Control and Earned Value Applied — Establishing Daily Reporting
- Turnaround Execution Plan Completion — Ready for Leadership Approval

## Applying Managing Shutdowns, Turnarounds and Outages After the Course

- Run a work list challenge session on the current scope of the next planned turnaround and record every accepted and deferred job.
- Set up a readiness index for the upcoming event and report it at the next phase-gate review.

## Managing Shutdowns, Turnarounds and Outages Questions FAQ

### What does managing shutdowns, turnarounds and outages involve and why does it matter now?

Managing shutdowns, turnarounds and outages is the discipline of planning and executing major maintenance events while a plant is offline. It matters now because longer run lengths load more work into each event, and overruns in refineries, power stations and chemical plants cost lost production and safety exposure.

### Which roles gain most from managing shutdowns, turnarounds and outages?

Turnaround managers, planners and operations leads gain most. They own scope, schedule, contractor mobilisation and restart, so shared methods for scope freeze, critical path and safety controls let them deliver the event as one team.

### How does managing shutdowns, turnarounds and outages differ from a routine maintenance planning course?

It addresses one large, time-bound event rather than weekly work. A routine planning course schedules daily jobs; here participants challenge scope months ahead, build critical path networks, mobilise hundreds of contractors and control a restart.

### What do you bring back from managing shutdowns, turnarounds and outages training?

You bring back an execution plan for your next event. It includes a challenged work list, a milestone and critical path schedule, contractor mobilisation and safety arrangements, and an earned value reporting set-up ready for approval.

## Managing Shutdowns, Turnarounds and Outages: The Way Forward

The Turnaround Execution Plan gives leadership a single view of scope, schedule, cost and safety controls for the next event. Its first decision is the approved scope freeze date. Turnaround managers, planners and operations leads use it at every gate. After the event, revisit its duration and cost baselines against actual results to sharpen the next estimate.