JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Preventive Maintenance Programme Design and PM Interval Setting Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Preventive Maintenance Programme Design and PM Interval Setting Training Course

Preventive Maintenance Programme Design and PM Interval Setting is a 1-week training course for maintenance planners, supervisors and reliability engineers who must turn equipment failure behaviour into a task list a crew can execute, and leave with a PM and condition monitoring roll-out plan for one plant area. Rising asset age, leaner crews and sensor-based inspection now force sharper choices about which tasks earn their labour hours. Jupiter Prime Training delivers this subject with a planner's eye on execution.

Why Preventive Maintenance Programme Design Matters Now

Three forces shape how preventive tasks are chosen today: cheaper sensors and portable inspection instruments, a thinner pool of experienced craftspeople, and operations teams that expect higher equipment availability with fewer planned stops. Intervals set by habit waste hours on intrusive overhauls and miss early warning signs; intervals set on failure evidence free capacity. The course rests on EN 13306 maintenance terminology, the asset management system requirements of ISO 55001, and industry metric definitions published by the Society for Maintenance and Reliability Professionals SMRP.

Who Gains Most from Preventive Maintenance Programme Design

- Planners who build task lists, job plans and route sheets inside the maintenance system
- Supervisors who schedule crews and decide which routine tasks slip when emergencies arrive
- Reliability engineers who set inspection frequencies from failure history and degradation rates
- Condition monitoring technicians who collect readings and raise findings for corrective work

A planning group and its reliability engineer attending together gain most, because they can rebuild one area's task library on shared rules.

Preventive Maintenance Programme Design Capabilities

Participants move from inherited calendar routines to task lists justified by failure pattern, detectability and consequence.

- Rank equipment by criticality and consequence of failure — deciding where routine tasks earn their labour hours
- Select time-based, condition-based or run-to-failure tactics per failure mode — informing the task library owner
- Calculate inspection intervals from the potential-to-functional failure window — guiding planners and route designers
- Specify condition monitoring techniques and alarm limits per asset class — serving technicians and area engineers
- Build PM masters, job plans and route sheets in the maintenance system — supporting schedulers and crews
- Assess PM compliance, schedule adherence and task yield — informing supervisors and the maintenance manager

Key Preventive Maintenance Programme Design Terms

- P-F interval — the time between the first detectable sign of degradation and the point at which the item fails to perform its function.
- Task yield — the share of preventive or inspection tasks that find a defect needing corrective work.
- PM compliance — the proportion of scheduled preventive tasks completed within their allowed time window.
- Condition-based maintenance — work triggered by measured equipment condition rather than by elapsed time or usage.
- Equipment criticality — a ranking of assets by the safety, environmental and production consequences of their failure.
- Job plan — a standard record of steps, craft hours, tools, parts and permits needed for one maintenance task.

Preventive Maintenance Programme Design Day by Day

Day 1: Failure Behaviour and Asset Criticality

- EN 13306 Maintenance Types — Shared Language Between Planners and Engineers
- Age-Related and Random Failure Patterns — Limits of Calendar Overhauls
- Criticality Ranking Matrix — Where Preventive Effort Is Justified
- Failure History Extraction From Work Orders — Evidence for Task Choices
- Infant Mortality After Intrusive Tasks — Cost of Over-Maintenance

Day 2: Choosing the Right Task per Failure Mode

- Failure Mode Lists per Asset Class — Basis for Task Selection
- Time-Based Versus Condition-Based Tactic Logic — Choosing per Failure Mode
- Run-to-Failure Criteria — Accepting Consequences on Non-Critical Items
- Failure-Finding Tasks for Protective Devices — Hidden Failure Exposure
- Operator Care Rounds — Shifting Simple Checks to Production Crews

Day 3: Setting and Optimising PM Intervals

- P-F Interval Estimation — Deriving Inspection Frequency From Degradation Rate
- Mean Time Between Failures From Records — Interval Starting Points
- Manufacturer Recommendations Versus Site Evidence — Adjusting Inherited Frequencies
- Task Grouping and Route Packaging — Balancing Crew Hours and Access
- Interval Review Triggers — When Findings Justify Extending or Shortening

Day 4: Condition Monitoring Technologies and the Maintenance System

- Vibration, Thermography, Oil Analysis and Ultrasound — Matching Technique to Failure Mode
- Alarm Limits and Trend Baselines — Converting Readings Into Work Requests
- PM Masters, Job Plans and Route Sheets in the CMMS — Executable Task Records
- Spare Parts Kitting for Routine Tasks — Reducing Wrench-Time Losses
- Findings Feedback Codes — Capturing Defects for Later Interval Review

Day 5: Roll-Out Planning for a Plant Area

- Applying the Criticality Matrix to a Selected Plant Area — Scoping the Roll-Out
- Task Library Rebuild Using Failure Mode Logic — Removing Low-Yield Routines
- PM Compliance and Task Yield Dashboards — Measuring Programme Health
- Crew Capacity and Schedule Loading Check — Confirming the Plan Is Executable
- Phased Roll-Out Plan Presentation — Completing the Area Task Programme

Applying Preventive Maintenance Programme Design After the Course

- Lead a task yield audit of one equipment class, retiring routines that have found no defect across several cycles
- Re-set inspection frequencies on the five most critical rotating assets using estimated P-F intervals and recorded failure history

Preventive Maintenance Programme Design Questions FAQ

What is preventive maintenance programme design and why does it matter now?

Preventive maintenance programme design is the choice of which routine and condition-based tasks each asset receives and how often. It matters now because crews are smaller and sensors cheaper, so every task must earn its labour hours.

Which roles gain most from preventive maintenance programme design training?

Planners, supervisors and reliability engineers gain most. They build, schedule and tune the task library.

How does a preventive maintenance programme design course differ from a maintenance management course?

It works at task level. A maintenance management course covers strategy and budgets, whereas this one covers failure modes, intervals, monitoring techniques and task records.

What do you bring back from preventive maintenance programme design training?

You bring back a phased roll-out plan for one plant area with justified intervals and compliance measures.

Preventive Maintenance Programme Design: The Way Forward

The PM and condition monitoring roll-out plan for one plant area first informs which inherited routines to retire and which intervals to change. Planners and supervisors use it to load crew schedules, and reliability engineers use it to target monitoring. After the first cycles, interval assumptions deserve a fresh look against recorded defects.