



Maintenance Management and Leadership: Strategy, Organisation and Performance



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Introduction:

Many maintenance departments run on habit: tactics copied from vendor manuals, crews organised around past breakdowns, a CMMS nobody trusts and indicators that do not reach the plant manager's agenda. Breakdown repairs cause consequential damage, downtime and overtime, while leadership time is lost to firefighting. This Core Concept course equips maintenance managers, superintendents and engineering managers to set maintenance policy, match tactics to asset criticality, design the maintenance organisation, govern work and data, lead crews and steer performance. Participants produce a Maintenance Strategy and Improvement Roadmap for a case plant.

Course Objectives:

- Write a maintenance policy and strategy statement that links maintenance objectives to production, safety and asset life targets
- Select preventive, predictive, condition-based, run-to-failure or redesign tactics for asset classes from a criticality ranking
- Design a maintenance organisation structure, craft mix, staffing level and shift pattern for a multi-area site
- Govern the work management cycle, CMMS data quality, spares policy and outsourcing choices at management level
- Lead supervisors and technicians through safety, permit discipline, reliability improvement and technology adoption decisions
- Build a maintenance scorecard, maturity rating and multi-year improvement roadmap and present it to senior management

Target Audience:

- Heads of maintenance functions accountable for plant availability, maintenance cost and crew performance
 - Maintenance superintendents who direct several supervisors, crafts and shifts across production areas
 - Engineering managers who own maintenance, reliability and asset engineering teams within operations
 - Plant engineering leads preparing to take over a maintenance department or a new site
 - Maintenance excellence and reliability programme leads who drive change across sites
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Course Outline:

Day 1: Maintenance in the Business and the Maintenance Policy

- Maintenance Value Chain: Availability, Throughput, Safety and Asset Life Contribution
- Reactive Maintenance Cost Iceberg: Consequential Damage, Overtime and Lost Output
- Maintenance Policy Statement: Scope, Principles and Decision Rights
- Maintenance and Operations Service Agreement for Equipment Care
- Maintenance Manager Role Charter: Accountabilities, Interfaces and Time Allocation

Day 2: Maintenance Strategy, Asset Criticality and Tactic Selection

- Maintenance Tactic Families: Preventive, Predictive, Condition-Based, Corrective and Run-to-Failure
- Asset Criticality Ranking Model Using Safety, Production and Repair Consequence Scores
- Tactic Selection Matrix by Asset Class and Failure Behaviour
- Design-Out and Redesign Decisions for Chronic Equipment Problems
- Strategy Document Structure: Asset Class Plans, Tactic Mix Targets and Review Triggers

Day 3: Maintenance Organisation Design, Staffing and Shift Models

- Centralised, Area-Based and Hybrid Maintenance Organisation Structures
- Craft Mix, Multi-Skilling and Span of Control for Supervisors
- Workload-Based Staffing Calculation From Preventive and Corrective Hours
- Shift Coverage Models: Day Crews, Rotating Shifts and On-Call Rosters
- Role Descriptions for Planners, Reliability Engineers and Craft Leads

Day 4: Work Governance, CMMS Data Quality, Spares and Outsourcing Choices

- Work Management Cycle Oversight: Request Screening, Priority Rules and Weekly Review Meeting
- CMMS Governance Model: Data Owners, Asset Register Standards and Close-Out Discipline
- CMMS Data Quality Scorecard: Missing Failure Codes, Duplicate Assets and Open Orders
- Spares and Stores Policy: Critical Spares, Stocking Rules and Issue Controls
- Make-or-Buy Framework for Contractor Services and Specialist Maintenance

Day 5: Week One Case: Diagnosing a Process Plant Maintenance Department

- Process Plant Case File: Asset List, Failure History and Organisation Chart
 - Current-State Diagnosis Using a Maintenance Department Health Checklist
 - Criticality Workshop and Tactic Reassignment for Pumps, Compressors and Conveyors
 - Organisation and Shift Redesign Proposal for the Case Plant
 - Week One Findings Briefing to a Mock Plant Leadership Team
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Day 6: Reliability Improvement Programme and Maintenance Technology Decisions

- Bad-Actor Elimination Programme: Selection, Owners and Review Cadence
- Defect Elimination and Root Cause Analysis Governance for Managers
- Condition Monitoring Technology Portfolio: Vibration, Thermography, Oil and Ultrasonic Techniques
- Predictive Analytics and Sensor Pilot Business Case With Go or No-Go Criteria
- Mobile Work Execution Tools: Digital Checklists, Tablets and Field Data Capture

Day 7: Safety, Permit Culture and Maintenance Risk Governance

- Permit-to-Work Leadership Checks and Isolation Discipline in Maintenance
- Stored Energy, Confined Space and Work at Height Hazards During Repairs
- Management of Change for Equipment Modifications and Temporary Repairs
- Maintenance Risk Register and Deferred Maintenance Approval Rules
- Safety Leadership Walks and Near-Miss Learning in Maintenance Crews

Day 8: Leading Supervisors, Technicians and the Operations Partnership

- Supervisor Leadership Routines: Shift Handover, Toolbox Talks and Field Presence
- Technician Skills Matrix, Competence Gaps and Development Plans
- Coaching Conversations and Performance Feedback for Craft Teams
- Operator-Driven Care and Shared Equipment Ownership With Production
- Change Leadership for Maintenance Transformation: Resistance, Champions and Communication Plans

Day 9: Maintenance KPIs, Benchmarking, Life-Cycle Cost and Maturity

- Leading and Lagging Maintenance KPI Tree From Availability to Crew Productivity
- Maintenance Performance Dashboard Design for Plant and Executive Reviews
- Peer Benchmarking of Maintenance Cost, Reactive Share and Availability
- Maintenance Budget Framing and Life-Cycle Cost Arguments for Asset Decisions
- Maintenance Maturity Model: Reactive, Planned, Proactive and Excellence Stages

Day 10: Capstone: Maintenance Strategy and Improvement Roadmap for a Case Plant

- Multi-Sector Case Plant Brief: Utilities, Manufacturing and Facilities Assets
 - Maintenance Strategy Build: Policy, Criticality Ranking and Tactic Mix
 - Organisation, Governance and KPI Scorecard Build for the Case Plant
 - Improvement Roadmap Build: Quick Wins, Phased Initiatives and Resourcing
 - Roadmap Presentation to a Mock Executive Panel With Peer Challenge
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Skills You Will Gain:

- Maintenance Policy Setting
- Asset Criticality Ranking
- Maintenance Tactic Selection
- Maintenance Organisation Design
- CMMS Data Governance
- Maintenance Safety Leadership
- Maintenance Performance Scorecarding
- Maintenance Transformation Leadership

Why Attend This Course:

- Leave with a Maintenance Strategy and Improvement Roadmap for a case plant, ready to adapt to your own site
- Move crews from breakdown firefighting to planned, condition-driven work with a clear tactic for every critical asset
- Present maintenance performance to senior management in terms of availability, risk and cost they act on
- Compare maintenance leadership practice with peers from utilities, manufacturing, oil and gas and facilities

Conclusion:

A maintenance department performs when policy, tactics, organisation, data and leadership pull in the same direction. Week one covers the business role of maintenance, maintenance policy, criticality-based tactic selection, organisation and shift design, work and CMMS governance, spares and outsourcing choices, tested on a process plant case. Week two adds reliability improvement, technology decisions, safety and permit culture, crew leadership, KPIs, benchmarking, life-cycle cost and maturity. The final day produces a Maintenance Strategy and Improvement Roadmap for a case plant.
