

# Certificate Course in Advanced Maintenance Management

## INTRODUCTION

- Leading industrial organizations are moving away from reactive (“fix-it-when-it-breaks”) maintenance into predictive and preventive maintenance (“anticipating, planning, and fix-it-before-it-breaks”) as part of a life cycle focused Asset Management approach. This evolution requires well-planned and executed actions on several fronts. Advanced Maintenance Management training course provides great opportunities to optimize the performance of your assets and maintenance processes to achieve maximum Return on Investment (ROI). By reducing costs and downtime, while achieving high levels of safety and quality you will be able to get the best out of your assets.
- This training course in Advanced Maintenance Management introduces participants to the skills and knowledge areas of essential advanced maintenance management technologies and methodologies. It demonstrates both the background to each technology, and its practical application to achieve the best bottom-line results.

This training course will highlight:

- Asset Management: a business-like approach of Maintenance Management
- Using KPI's and the balanced scorecard to Measure Performance
- Assessing Asset Management maturity and determine the roadmap for improvement
- The business case for Asset Management improvement - cost / benefit thinking
- Understanding risk and an introduction to a Risk Based Maintenance approach
- Life Cycle Management with aspects like Systems Engineering and RAMS requirements
- Life Cycle Costing
- The latest concepts and techniques of Predictive and Smart Maintenance

## OBJECTIVES

By the end of this training course, participants will be able to:

- Understand the basic principles of Asset Management as a framework for managing and optimizing maintenance
- Identify common maintenance Key Performance Indicators (KPIs) and develop the maintenance department scorecard
- Assess the organizational Asset Management maturity and develop a roadmap for improvement
- Examine the organizational and managerial considerations for highly effective Risk Based Maintenance
- Understand Life Cycle Management and the way Systems Engineering and RAMS could support this
- Determine the Life Cycle Costs of an asset
- Demonstrate the latest concepts and techniques with regard to Predictive and Smart Maintenance

## WHO SHOULD ATTEND?

This training course is suitable to a wide range of professionals involved in the area of Advanced Maintenance Management, but will greatly benefit:

- All Professionals involved in Maintenance Management
- Professionals involved in Work Planning & Control
- Maintenance Supervisors
- Maintenance Engineers
- Maintenance Team Leaders and Managers
- Operations Team Leaders and Managers

## Course Outline

Introduction to Asset Management – A Framework for Managing and Optimizing Maintenance

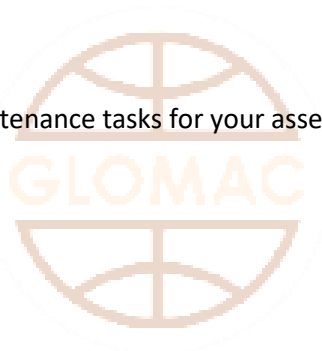
- Asset Management as a Business Process
- Asset Management Landscape Model
- Strategy Framework
- Line of Sight
- Asset Management Policy, Asset Management Strategy
- (Strategic) Asset Management Plan
- The Position of Maintenance Management
- Asset Management Roles on Strategic, Tactical and Operational Level

## Assessing Asset Management Maturity as A Basis for Maintenance Improvement

- Measuring Performance
- Leading & Lagging Indicators – KPI – Dashboards
- Assessments & Benchmarking against International Standards
- Asset Management Maturity Assessments
- Asset Management Workbench (ISO 55000 Gap Analysis)
- SAM-assessment (ISO 55000 Self-assessment)
- Determine the Roadmap for Maintenance Improvement
- The Business Case for Asset Management Improvement – Cost / Benefit Thinking
- Implementation Aspects

## Managing Asset Risks – Risk Based Maintenance (RBM)

- Not every failure is important - the basic principles of risk
- Risk on business level
- Risk matrix, risk register
- Risk on asset level
- Failure behaviour of systems
- Choosing the appropriate maintenance tasks for your assets with a Risk Based approach



## Life Cycle Management

- Life Cycle Management
- The Life Cycle of An Asset
- Demand Forecasting
- Creation & Acquisition of Assets
- Systems Engineering Approach
- RAMS Requirements – Methodologies
- Life Cycle Costing (LCC)
- Disposal and/or Replacement - Life Time Extension (Asset Rationalisation)

## Smart Maintenance

- Understanding Principles of Predictive Maintenance (PdM)
- What PdM Technologies to Apply? – A short overview of relevant PdM technologies
- Smart Maintenance – Measuring Asset Performance with Modern Data Technology
- Data Analysis Aspects
- Optimization Aspects – Optimizing the Maintenance Strategy
- Using Decision Support Tools