# **Asset Life Cycle Management**

Facilitated learning

#### What is it all about?

Asset life cycle management describes the best practices regarding life cycle decisions about assets. It explains how to develop life cycle plans for critical assets in terms of their expected economic life, mid-life overhaul plan, maintenance approach, suitability of the technology and life cycle costs. This process aims to realise and optimise the value of assets and assists asset managers in making repair/replace decisions.

Another focus area is the organisation's whole asset portfolio. It considers the life cycle plans and replacement cycles of individual assets, as well as the demand forecast for products and services to optimise the composition and location of the asset portfolio. This process is supplemented by capital investment decisions based on the ROI of the proposed assets.

Once the capital projects for new assets have been approved, the asset acquisition process kicks off. The training covers the asset creation and acquisition process, in conjunction with the analytical systems engineering process. Old assets need to be disposed of in a structured way at the same time. The last step is to commission and hand over the new asset to Operations and Maintenance.

This training course is aligned with the GFMAM's 39 Subjects with a specific focus on the following subjects: demand analysis, capital investment decision-making, life cycle value realisation, asset creation and acquisition, systems engineering, asset decommissioning and disposal.

## Who should attend?

- Senior managers and executives in asset intensive organisations
- Project managers/engineers
- Asset managers
- Production and operations managers
- Financial managers
- Maintenance and production engineers
- Risk managers

#### Take-home tools

- Templates for asset life cycle plans
- Excel models for life cycle cost calculations and other concepts, eg PV, FV, NPV

#### Format

- Public training scheduled at all major cities across Southern Africa
- On-site training

### What makes it different?

This training course is based on proven methodologies and industry best practices and aims to provide learners with:

- a unique model to depict the life cycle management of assets
- a practical understanding of how life cycle costs are calculated
- examples and templates for asset life cycle plans
- a structured way of developing capital budgets
- a methodology for making optimal capital investment decisions
- real life case studies of successful and unsuccessful capital projects
- the concepts and terminology from the latest asset management standards – ISO 55000 and the Asset Management Landscape

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# **Course outline**

Subjects covered in this three day intervention

#### Introduction to Asset Life Cycle Management

Introduces the model and definitions of asset life cycle management.

- · The need for formal asset management
- Definitions of an asset, an asset system and an asset portfolio
- The model of asset life cycle management

#### Life Cycle Costing

Provides learners with the financial tools and formulae to calculate the value and return on investment of assets.

- Life cycle costing principles
- The elements of LCC
- Formulae for present value, future value and net present value
- Examples and practical exercises

#### **Realising the Value of Assets**

Explains the aspects to be considered to optimise the value of individual assets over their full life cycle.

- Official terms and definitions
- The format and content of an asset life cycle plan
- The problem of ageing assets
- · Determining an asset's economic life
- Repair/Replace decisions

#### Demand Analysis and Portfolio Management

Focuses on the process to optimise an organisation's full asset portfolio based on the individual asset plans and the expected demand for products and services.

- · Official terms and definitions
- Analysing the demand forecast against available capacity
- The process of asset portfolio management
- Case studies and practical exercises

#### **Capital Investment Decision-Making**

Provides learners with the tools and techniques to make optimal investment decisions regarding new assets.

- · The challenger and defender concept
- Equivalent annual cost comparisons
- Return on investment calculations
- Compiling a capital budget

#### **Systems Engineering**

Introduces learners to the principles and techniques of systems engineering to translate user requirements into detailed item specifications.

- · Systems and systems thinking
- The systems engineering process
- The format of user requirements
- The format of item specifications
- Integration and verification
- Case studies and practical exercises

#### **Asset Creation and Acquisition**

Provides learners with an overview of capital project management principles.

- Official terms and definitions
- Reducing risks during capital projects
- · Consideration of LCC during asset acquisition
- Steps and best practices in the acquisition process
- · Asset installation and commissioning
- Case studies and practical exercises

#### Asset Decommissioning and Disposal

This module deals with aspects to consider when disposing of old assets.

- Official terms and definitions
- Steps to dispose of redundant assets
- · Considerations and best practices
- Examples and case studies

## For more information

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## Pragma Academy | Learner Registration

Send completed registration form to fax 011 805 0085 or email pragma.academy@pragmaworld.net | Enquiries +27 11 848 6940

Course name					Course date		Venue						
Learner details	Learner 1				Learner 2				Learner 3				
Name and surname													
Job title													
ID number													
Email address													
Mobile number													
Race													
Gender													
Dietary requirement	Halaal		Vegetarian		Halaal			Vegetarian		Halaal		Vegetarian	
	Other				Other					Other			
Approving manager	Learner 1				Learner 2				Learner 3				
Name and surname													
Email address													
Mobile number													
Company name and p	ayment deta	ils											
Company name					VAT number								
Telephone number					Purchase order number								
Main contact person	F				Finance contact person								
Email address	Em					Email address							
Mobile number	Me				Mobile r	Mobile number							
Pragma Academy banking details						Approval							
Account name	Pragma Africa (Pty) Ltd					I, confirm that I am authorised to approve the learner's attendance at this training course and have read and understand its terms and conditions.							
Bank	Nedbank												
Branch name	Business NP Branch code 1186				602								
Account number	118 608 9040					Signature							
Please use your company name or tax invoice number as a reference.						Name and surname							

#### Terms and conditions of registration and use

All registrations received are regarded as confirmed and subject to the following:

- All prices quoted exclude value added tax.
- Payment must be made before the course start date or within 30 days of invoice date, whichever occurs first. Once payment has been made, please send proof thereof via email to: pragma.academy@pragmaworld.net.
- Refunds and/or substitutions are not applicable if a learner has: enrolled for a course and accessed it via the Pragma Academy Learning Management System; or attended a classroom session.
- Refunds and/or substitutions **are** applicable: if a cancellation is received in writing at least fifteen (15) working days before the scheduled start date of the course; if a learner who enrolled in a course due to take place in less than fifteen (15) working days, sends a substitution learner subject to the substitution learner meeting the minimum prerequisite qualification requirements.
- It is the learner's responsibility to ensure that they meet the prerequisite requirements for a course in which they are enrolling. Proof of suitable
  prerequisite qualifications will be required.
- Pragma reserves the right to cancel any advertised course due to insufficient enrolments or conditions beyond our control.