

Asset Management Education & Training

Course ref	AM09
Course title	MSc Asset Management
Duration	12 months (8 x 5 days plus project)
Class Size	16
Overview	<p>The full Diploma covers eight modules providing students with an in-depth and detailed knowledge of all areas of asset management.</p> <p>Each of the 8 modules is run as a one-week intensive workshop, followed by a period of supported learning assessment is by course work and examination. Full-time is over 8 months (which is 8 one-week releases from work) and part-time up to 2 years (which for example could be 4 one-week releases from work each year). Where possible, the whole programme will run at least twice a year, at a mutually convenient location giving even more flexibility to the employer and the employee.</p> <p>The MSc qualification is awarded following successful completion of both the Diploma course and a research dissertation. Typically the time to complete the dissertation is between 3 and 6 months and is usually based on a case study relevant to the student's own organisation or market sector.</p>
Objective	The programme modules introduce the student to key principles, methods and tools of asset management.
Content	<p>Fundamentals of Asset Management</p> <ul style="list-style-type: none">• An introduction and overview of AM• Combining best practice methods and an overview of British Standard PAS 55• Asset management processes• Holistic performance alignment• Whole life horizons• Risk-based decision making <p>Essential Methods of Asset Management</p> <ul style="list-style-type: none">• Asset management processes and tools• Benchmarking, baselines and business excellence methods• Removing the conflicts in key performance indicators• Cost/risk/performance optimisation techniques• Structured decision-making• Integrating the use of hard data and tacit knowledge <p>Risk Analysis and Reliability Engineering</p> <ul style="list-style-type: none">• Fundamentals of Risk Management• Risk and reliability engineering• Maintenance requirements and strategy• The cost/benefit analysis of maintenance and inspection activities

If you require more information:

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Content contd

Safety, Health, and Environmental Management Systems

- Safety management systems and developing a safety culture
- Causes and prevention of incidents: ALARP, BATNEEC, QRA, FMEA
- Principles and applications
- Fitness for purpose, human factors analysis, role of training
- The legal framework

Asset Life Cycle Analysis

- An introduction to terotechnology, LCC and WLC
- Life cycle costing methods, capex and opex justification
- Asset investment, renewals and upgrade decisions

Plant Systems Engineering

- Identity and characterise key plan elements
- Optimise the system design
- Model and optimise maintenance plans
- Apply and optimise WLC plans

Information Management

- What data, why?
- Information flow and handling
- IT systems and applications for asset management
- Quality assurance and monitoring
- Knowledge management, artificial intelligence and fuzzy logic

Strategic Management

- Integrating and implementing best practice
- Change and transition management, cultural change
- Corporate reorientation, goal-setting, performance measurement
- Multi-disciplinary teamwork, motivation, supervision and reward
- The asset management regime

The project

- Integrating and implementing research methods
- Industry or client specific problem focus
- Practical, relevant and transferable

Benefit

As businesses become more complex, asset management is an increasingly complete science and much more than simple maintenance and work planning. Now companies demand multi-skilled staff with formal qualifications in the disciplines of resource and project management, business cost/benefit, risk management and teamsmanship. For any asset-intensive business, expert asset management grounded in sound knowledge of specific management techniques, is essential to increase net present value and to identify and complement viable strategies for the future.

Audience

The course is applicable to middle/asset managers.

Pre-requisites

Although no pre-qualification is required, a degree-level or HND is recommended.

Cross references

TWPL's personnel are key contributors to this Masters-level degree course. For further details, please contact the Robert Gordon University on + 44 (0)1224 263324.