

WM9PS-15 Knowledge based Asset Management

24/25

Department

WMG

Level

Taught Postgraduate Level

Module leader

Paul Dobie

Credit value

15

Module duration

4 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

KBAM combines two topics, Knowledge management and Physical Asset management, which are worthy of degrees in their own right. Delivering such vast topics in lectures is just part of the course but this module will also introduce students to theoretical business environments in which they are encouraged to explore risks, pushing themselves beyond their comfort zone in a safe learning environment. Students will explore KBAM through the following approaches:

Games that will foster reflective thinking.

A mini exercise where students examine how company can manage their assets effectively.

Seminars during which the class will co-create applied knowledge.

The Module will continue to challenge student thinking upon the EFQM Model (2nd edition 2021) with particular emphasis on relevant criteria to KBAM subjects. For example Direction 5.4 "leverage knowledge" and 5.5 "Manage Assets and resources" - asking for evaluation on how the theories, approaches and standards of KBAM they have learnt can support excellence in these areas.

Module aims

This module aims to enable participants to develop their ability to apply asset and knowledge

management theory and good practices. At the end of this module students will be able to:

Identify and analyse opportunities to improve the management of an organization's KBAM resources in support of an organization's policy and strategy.

Create an implementation plan that would deliver the identified opportunities.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

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Concepts of resource and asset management.

Overview of knowledge management in engineering asset management context.

Engineering asset management methodologies.

Maintenance strategies.

Life cycle costing.

Learning outcomes

By the end of the module, students should be able to:

- Analyse opportunities to improve the management of an organization's physical Assets in pursuit of excellence in policy and strategy.
- Analyse opportunities to improve and enhance the management of an organization's Knowledge base in support of an organization's policy and strategy.
- Create an business or department implementation plan that would deliver opportunities identified in studies in the areas of Asset Management and Knowledge base management.
- Critically review as a team how advances associated with Quality 4.0 and AM standards can lead a company to a new level of excellence in knowledge and asset management

Indicative reading list

The reading list has been updated by the new module owner for 24/25 - adding new reading and removing old dated publications whilst maintaining any seminal works.

[View reading list on Talis Aspire](#)

Subject specific skills

Understand the concepts of engineering asset management and its benefits, Understand the concepts of

knowledge management and its impact on asset management, Understand the methods to identify and

analyse opportunities to improve asset management, Understand the benefits of waste minimisation and

recycling to asset management, Understand the benefits of supply chain and logistic optimisation to asset management

Transferable skills

Communication, critical thinking, working with others, problem solving, information literacy, numeracy, digital literacy, ethical values, intercultural awareness, professionalism, organizational awareness

Study

Study time

Type	Required
Lectures	20 sessions of 1 hour (14%)
Seminars	10 sessions of 1 hour (7%)
Online learning (independent)	60 sessions of 1 hour (41%)
Assessment	57 hours (39%)
Total	147 hours

Private study description

No private study requirements defined for this module.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Assessment component			
Create an Asset management plan	75%	45 hours	Yes (extension)

	Weighting	Study time	Eligible for self-certification
for excellence in a company based scenario. Then analyse how KM can support this			
Offer advice on how good practices (using academic and industry literature) of your chosen topic could contribute to the company's journey towards business excellence.			
Develop a 3-year implementation plan for your chosen topic and discuss the critical success factors to be considered and the barriers that could arise during the deployment of the plan. In this analysis, you should also integrate solutions supported by the academic literature on how to overcome anticipated problems			
Provide guidance on how the company can build a knowledge management system to support the implementation plan that you recommended.			

Reassessment component is the same

Assessment component

Review of new technologies and AM standards that can be applied to an existing business to lead it to excellence in KBAM	25%	12 hours	No
Students are allocated to groups in class and research these topics which they present in class around a given business scenario. The presentation is given by all the team in turn and therefore slides allocated to individuals each of which has appropriate notes. References are included in final slides. The content is provided to the assessor alongside a reflection by students on their own and colleagues contributions to the exercise and areas for improvement.			

Reassessment component

Reflection on group presentation work	Yes (extension)
Student reflective on the study and recommendations/justifications pertinent to the set group presentation topic	

Feedback on assessment

Assignment feedback report and annotated script

Availability

There is currently no information about the courses for which this module is core or optional.