WM9F6-15 Logistics and Operations Management

26/27

Department
WMG
Level
Taught Postgraduate Level
Module leader
Mujthaba Ahtamad
Credit value
15
Module duration
4 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

Operations Management focuses on how organisations design and manage processes to transform resources such as capital, machinery, labour and materials into products and services valued by customers. This includes the use of technology in Manufacturing. The module emphasises the strategic role of logistics in delivering speed, flexibility and reliability while controlling inventory and cost. It also considers how operations and logistics are managed both within organisations and across global supply chains to support competitiveness and sustainability.

Module aims

This module will give students a comprehensive understanding of the wide-ranging tools, techniques and technology (e.g., AI and Control Systems) involved in Operations and Logistics Management. This will enable students to critically evaluate which tools, techniques and technologies are most applicable in different industrial contexts.

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.

This module introduces key concepts in Logistics and Operations Management (LOM) and their integration in a variety of businesses (including Engineering/Technological applications).
We also cover an introduction into:
Demand Management/Forecasting,
Capacity Management & Planning,
Scheduling/Sequencing/Delivery Performance
Inventory Management
Lean/JIT & 5S Practices

The module also provides an insight into planning and control systems such as MRP, MRPII, ERP alongside the use of emerging technologies including automation and Artificial Intelligence. Applications are illustrated through case-study examples from a range of industries.

Learning outcomes

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

- Analyse the interrelationships and interdependencies between capacity, inventory and delivery performance.
- Critically evaluate how to manage capacity, inventory and delivery to achieve effective and efficient operational performance.
- Compare and contrast different tools and techniques for the planning and control of logistics and operations management in order to justify their use in a variety of operational environments.
- Critically appraise how appropriate technologies can be applied to improve logistics and operations management in a business or sector.

Indicative reading list

Reading lists can be found in Talis

Interdisciplinary

Covers a range of interdisciplinary topics, from Engineering, Management, Decision-Making in Business.

Subject specific skills

Critical thinking in subject knowledge, application of tools in subject specific areas, practical application of Operations and Logistics Management.

Transferable skills

Critical thinking, problem solving, communication, professionalism, collaborative working.

Study

Study time

Type	Required
Lectures	15 sessions of 1 hour (10%)
Seminars	15 sessions of 1 hour (10%)
Online learning (independent)	15 sessions of 1 hour (10%)
Other activity	15 hours (10%)
Private study	30 hours (20%)
Assessment	60 hours (40%)
Total	150 hours

Private study description

Students encouraged to read materials available on moodle and reading list.

Other activity description

Unsupervised case-study work.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A2

Assessment component	Weighting	Study time	Eligible for self-certification
LOM - Written Assignment	80%	48 hours	Yes (extension)

A comprehensive assignment which will set questions to critically analyse and evaluate a series of topics in Logistics and Operations Management.

	Weighting	Study time	Eligible for self-certification
Reassessment component			
LOM - Written Reassessment			No
A comprehensive assignment which will set questions to critically analyse and evaluate a series of topics in Logistics and Operations Management.			
Assessment component			
Reading & Lecture Engagement Test	20%	12 hours	No
A test to determine engagement with reading and lecture content, will be provided via moodle.			
Reassessment component is the same			

Feedback on assessment

Reading & Lecture Engagement Test results will be provided on completion via moodle, and can be released via tabula as per dept. guidelines. Written feedback for the LOM -Written Assessment, will be provided using the University feedback template. This feedback will identify the marking criteria against each Learning Outcome, and where necessary a brief paragraph/statement will be provided commenting on the overall strengths and weaknesses of the work and where applicable, any improvements/remedial work needed in the resubmission.

Availability

Courses

This module is Core for:

- Year 1 of TWMS-H1S3 Postgraduate Taught Engineering Business Management (Full-time)