

WM904-15 Logistics & Operations Management

20/21

Department

WMG

Level

Taught Postgraduate Level

Module leader

Mujthaba Ahtamad

Credit value

15

Assessment

Multiple

Study location

University of Warwick main campus, Coventry

Description

Introductory description

In today's global environment there is a growing realisation that everyone, everywhere has access to the same underlying elements, including hardware, software and technology. It is the management of these underlying elements which offers the greatest potential for developing a competitive advantage. Consequently logistics and operations management is critical to the success of an engineering company and is often referred to today as the supply chain management process which encompasses all operations from the extraction of raw material, through manufacture to the recycling of products at the end of their life. Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This must involve the management of external companies supplying materials or services to the company as well as the management of operations within the company.

Module aims

In today's global environment there is a growing realisation that everyone, everywhere has access to the same underlying elements, including hardware, software and technology. It is the management of these underlying elements which offers the greatest potential for developing a competitive advantage. Consequently logistics and operations management is critical to the success of an engineering company and is often referred to today as the supply chain management process which encompasses all

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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.

- Relationship of Logistics and Operations Management strategy with:
 - Overall business strategy
 - Manufacturing strategy
 - Make/buy policy
 - Manufacturing environment (make to order/ make to stock, job/batch/line/flow production)
- Theory & principles of supply chain management
- Basic operations planning & control techniques:
 - Forecasting demand
 - Capacity management
 - Scheduling and sequencing
 - Inventory management
 - Planning & control systems and methodologies (Material Requirements Planning, Manufacturing Resource Planning, Optimised Production Technology, Lean, Just In Time)
- Measuring performance in Logistics and Operations Management

Learning outcomes

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

- Appreciate the causes of demand variation and the operational impact of dynamic flow through the extended supply chain.
- Remove the causes or/and alleviate the operational impact of demand variation.
- Be able to select appropriate logistics and operations management strategies, objectives and performance measures that align with each other and the overall business strategy.
- Appreciate and be able to manage the interrelationships and interdependencies between capacity, inventory and delivery performance in-order to achieve effective and efficient operational performance.
- Critically evaluate, select and apply tools and techniques for the planning, control and improvement of logistics and operations management performance.
- Describe and critically discuss the control systems and approaches that can be used for logistics and operations management in different operational environments.
- Apply the theory of Logistics and Operations Management to identify a performance issue in their own organisation, critically evaluate alternative approaches, select the most appropriate solution and propose an effective implementation plan.

Indicative reading list

“Logistics Management”, Grant D.B.; 2012; Pearson ISBN: 0273731351

“Operations Management”, Slack, N., Brandon-Jones, A. & Johnston, R. 2015; Pearson Education; ISBN-10: 0273776290

“The Definitive Guide to Manufacturing and Service Operations: Master the Strategies and Tactics for Planning, Organizing, and Managing How Products and Services Are Produced.” Sanders, N; 2013; Pearson Education. ISBN: 0133438643.

"Manufacturing Planning and Control Systems for Supply Chain Management": Vollman, Berry et al., 2005; ISBN 0-071121331.

"Logistics and Supply Chain Management": Christopher, M.; 2016; Pitman Publishing; ISBN 0-273-0-630490.

“Supply Chain Management: Strategy, Planning, and Operation”; Chopra, S., et al.; 2009; ISBN: 0136094511

“Operations Management for Competitive Advantage”: Chase, Aquilano and Jacobs; McGraw-Hill; 2006; ISBN: 0-07-250636-9

“Service Management: Operations, Strategy, and Information Technology” James A. Fitzsimmons, Mona J. Fitzsimmons, 2006; McGraw-Hill; ISBN: 0071244409

“Operations Management”; Slack et al., 2010; (Electronic Resource Warwick Library)

“Operations Strategy”: Slack, N. and Lewis M.; Pearson: 2014; ISBN-10: 1292017791

"The Goal": Goldratt, E. and Cox G. ; Gower; 1984; ISBN 0-566-02683-X.

“Supply Chain Management: Strategy, Planning, and Operation”; Chopra, S., et al.; 2009; ISBN: 0136094511

“Strategic Supply Chain Alignment; Best Practice in Supply Chain Management”: Gattorna, J.L.; 1998; Gower Publishing Limited, ISBN 0-566-07825-2

“Inventory Management: Advanced Methods for Managing Inventory within Business Systems.” Relph, G, Milner, C; 2015, Kogan Page, ISBN: 0749473681

“The Logistics and Supply Chain Toolkit: Over 90 Tools for Transport, Warehousing and Inventory Management.” Richards, G. and Grinsted, S.; 2013, ISBN-10: 0749468084

[View reading list on Talis Aspire](#)

Subject specific skills

Balance of supply and demand, Operations Management, Logistics, Lean principles, ERP/Control Systems.

Transferable skills

Critical Thinking/Evaluation, Problem Solving, Communication, Professionalism, Team Working & Presentation Skills.

Study

Study time

Type	Required
Lectures	29 sessions of 1 hour (39%)
Practical classes	8 sessions of 1 hour (11%)
Other activity	38 hours (51%)
Total	75 hours

Private study description

No private study requirements defined for this module.

Other activity description

75 hours self-study leading to post module assignment
 30 hours maintaining a self-reflective log-book
 8 hours pre-reading

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A1

Weighting Study time Eligible for self-certification

Assessed work as specified by department 100% 75 hours Yes (extension)
 A coursework of approximately 6,000 words.

Assessment group R

Weighting Study time Eligible for self-certification

Assessed work as specified by department 100% Yes (extension)
 100% Post Module Assessment

Feedback on assessment

Immediate oral feedback will be provided after case studies / practical workshops, which will be focussed upon the learning targets of each session. Feedback will also be provided to any questions which arise from students with the lecture session.

Written feedback of approximately 150-250 words will be provided for the Post-Module Assignment within a four week period after the date of submission. This feedback will be focussed upon the strengths and weaknesses of the work with regard to the module learning objectives and the post-module assignment marking guidelines. Suggestions for improvement will also be provided.

Availability

Courses

This module is Optional for:

- Year 1 of TESS-N1PX Postgraduate Award in Business Leadership
- Year 1 of TESS-H1P1 Postgraduate Taught Engineering Business Management