

Lean Manufacturing

Module Information

2022.01, Approved

Summary Information

Module Code	5504NCCG
Formal Module Title	Lean Manufacturing
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Nelson and Colne College Group

Learning Methods

Learning Method Type	Hours
Lecture	60

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
APR-PAR	PAR	April	12 Weeks
JAN-PAR	PAR	January	12 Weeks
SEP-PAR	PAR	September	12 Weeks

SEP_NS-PAR	PAR	September (Non-standard start date)	12 Weeks
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Aims and Outcomes

Aims	This module will look at how manufacturers and their associated supply chain utilise lean methodologies to achieve process and production commitments. The aim of this module is to introduce students to the tools, techniques, principles and processes associated with lean manufacturing, so that they can become an effective and committed practitioner of lean within the world of industry, business and commerce. In doing so students will consider both the benefits and challenges of using lean manufacturing, and become sufficiently knowledgeable about the processes, tools and techniques to be able to operate and use them.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Examine the common principles of lean manufacturing and how the implementation of a lean production system contributes to business success.
MLO2	2	Evaluate a given case study against widely adopted approaches to lean manufacturing
MLO3	3	Specify a range of the process improvement tools used within lean manufacturing.
MLO4	4	Demonstrate effective communication skills in order to lead the process of continuous improvement across an organisation.

Module Content

Outline Syllabus	Among the topics included in this module are: <ul style="list-style-type: none"> • scoping and defining lean manufacturing • the benefits and challenges of adopting Lean • common tools and techniques associated with lean manufacturing and process improvement • the most appropriate improvement tool(s) to tackle a problem. As part of the module students will consider the tools and techniques used to support quality assurance and control including: <ul style="list-style-type: none"> • the impact of attributes and variable data • testing processes • costing modules • the importance of qualifying the costs related to quality • international standards for management (ISO 9000, 14000, 18000) • European Foundation for Quality Management (EFQM) • principles, tools and techniques of Total Quality Management (TQM) • implementation of Six Sigma.
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Case Study Analysis	50	0	MLO1, MLO2
Report	Assignment	50	0	MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Christian Matthews	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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