

Summary Information

Module Code	5505NCCG
Formal Module Title	Advanced 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	On successful completion of this module students will be able to analyse and evaluate the potential of using advanced manufacturing technologies to improve the competitive advantage of the organisations adopting them. The student will develop knowledge and understanding of advanced manufacturing technologies, digitalisation and a range of advanced manufacturing technologies. They will also develop their own research activities into the latest developments.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Illustrate the principles of advanced manufacturing systems engineering and explain their relevance to the design and enhancement of manufacturing systems.
MLO2	2	Use a range of analysis tools to determine the effectiveness and efficiency of a manufacturing system, and then develop an appropriate future state for that system.
MLO3	3	Analyse an existing manufactured product and associated process to introduce proposals for possible improvements based on the introduction of advanced manufacturing technologies.
MLO4	4	Outline the impact of different production planning approaches and advanced manufacturing technologies on the effectiveness of a manufacturing system
MLO5	5	Evaluate the factors that enable manufacturers to remain competitive in a rapidly changing world

Module Content

Outline Syllabus	Traditional manufacturing processes Advanced manufacturing processes Manufacturing technologies Manufactured product Next industrial revolution Internet of Things Mass customisation
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, MLO3
Artefacts	Assignment	50	0	MLO4, MLO5

Module Contacts

Module Leader

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

Contact Name	Applies to all offerings	Offerings
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