

Module Information

2022.01, Approved

Summary Information

Module Code	7311MECH
Formal Module Title	Advanced Manufacturing Processes
Owning School	Engineering
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 7
Grading Schema	50

Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	3
Tutorial	11

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To provide a broad understanding of advanced manufacturing technologies and their applications.
------	---

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Gain comprehensive knowledge of the principles and mechanisms of the manufacturing processes.
MLO2	2	Identify benefits and drawbacks of different manufacturing processes for various applications.
MLO3	3	Select appropriate process conditions for the optimum manufacturing outcomes.
MLO4	4	Select and apply suitable process monitoring methods and control strategies.

Module Content

Outline Syllabus	Current developments of advanced manufacturing processes and their applications in industry. The fundamental principles of exemplary advanced manufacturing technologies. The process monitoring, control and optimisation in the associated manufacturing technologies.
Module Overview	
Additional Information	This module includes content which relates to the following UN Sustainable Development Goals:SDG12 – This module considers the issues of waste and recycling when considering manufacturing solutions. SDG8 – This module will consider how manufacturing engineers can consider the improvement of sustainable productive and the provision of decent work for all when considering manufacturing solutions.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Examination	100	2	MLO1, MLO2, MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Xun Chen	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------