STUDENT AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Information			
Module Title	Advanced Manufacturing		
Module Code	UFMF74-15-M	Level	Level 7
For implementation from	2019-20		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Engineering, Design and Mathematics
Department	FET Dept of Engin Design & Mathematics		
Module type:	Project		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

Educational Aims: The module aims to provide students with in-depth knowledge about advanced manufacturing technologies. In addition, it deliberates the importance of technological developments and automation in sustaining competitive advantages in an increasingly fast-moving business environment. The module also focuses on the importance of the integration of product design, manufacturing system design and manufacturing technology selection.

Outline Syllabus: The module will cover the following areas:

Traditional and new innovative manufacturing processes and assembly techniques used in the aerospace industry and other developing industrial sectors.

Design for manufacture, assembly, maintenance and minimum cost whilst meeting customer requirements.

The influence of composite materials and other advanced materials on manufacturing technology and manufacturing processes.

The structure, strengths and limitations of manufacturing philosophies and approaches.

Relationship between business strategy and manufacturing system.
Organisation of manufacturing and production facilities.
Tools and techniques for optimising manufacturing efficiency and quality.
Teaching and Learning Methods: See Syllabus and Assessment.

Part 3: Assessment

The single component and element in the assessment will be a project assignment which requires demonstration of independent learning of theory and critical reflection of the project work both in the classroom and during the assignment period outside the classroom. A mix of general and individual written feedback will be provided. The output from the project will be a 3000 word report.

The resit assessment will involve a reworking of the first sit report.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Project - Component A	✓	100 %	Project (3000 words)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Project - Component A	✓	100 %	Project (3000 words)

Part 4: Teaching and Learning Methods		
Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:	

Module Learning Outcomes	**Reference**
Explain the importance of technological developments and automation in generating and maintaining competitive advantage in the World marketplace	MO1
Evaluate the effectiveness of a choice of manufacturing approach or systems in terms of the profitability of an organisation and its business priorities	MO2
Implement systems level thinking concerning the integration of product design, manufacturing system design and manufacturing technology selection	MO3
Evaluate traditional and new innovative manufacturing processes and assembly techniques used in industry	MO4
Identify suitable manufacturing technology and techniques for the production of specified components and appraise each technique in terms of manufacturing efficiency and quality	MO5

Contact Hours	**Independent Study Hours:**	
	Independent study/self-guided study	115
	Total Independent Study Hours:	115

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	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	35
	Total Scheduled Learning and Teaching Hours:	35
	Hours to be allocated	150
	Allocated Hours	150
Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ufmf74-15-m.html	

Part 5: Contributes Towards
This module contributes towards the following programmes of study: Engineering Business Management [Sep][PT][Frenchay][2yrs] MSc 2019-20