Liverpool John Moores University

Title:	MANUFACTURING OPERATIONS MANAGEMENT
Status:	Definitive
Code:	**6038ENG** (105512)
Version Start Date:	01-08-2016
Owning School/Faculty:	Maritime and Mechanical Engineering
Teaching School/Faculty:	Maritime and Mechanical Engineering

Team	Leader
Jun Ren	Y

Academic Level:	FHEQ6	**Credit Value:**	12	**Total Delivered Hours:**	26
Total Learning Hours:	120	**Private Study:**	94		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Practical	6
Tutorial	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Coursework	30	
Exam	AS2	Examination	70	2

Aims

To develop an understanding of modern manufacturing planning and organisation in the context of Global manufacturing.

Learning Outcomes

After completing the module the student should be able to:

1 Use the principles of material control in a modern manufacturing organisation
2 Use the control of information and data and their application in the planning and execution of manufacturing
3 Critically review the characteristics of a manufacturing company in terms of manufacturing organisation

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

CW	1	3
EXAM	2	3

Outline Syllabus

Demand management: forecasting, patterns of demand; qualitative and quantitative methods.
Master production scheduling: the master scheduling process, rough-cut capacity planning fences, final assembly scheduling.
Operations planning: Bill of Material structure and design,
ERP, MRPII and Materials requirements planning, scheduling and inventory control.
Lean manufacturing, just-in-time - the culture and manufacturing techniques, kanbans, one-piece flow and set-up time reduction.
Information flow and modelling and its application in manufacturing operations.

Learning Activities

Lectures, tutorials and Computer-based laboratories

Notes

The module deals with modern, world class manufacturing principles in batch and mass production. The work explores: The relationship between manufacturing data and organisation in terms of planning, scheduling and cost. Lean manufacturing its philosophy and techniques. ERP and MRPII in world class manufacturing organisations.