

Liverpool John Moores University

Title: MANUFACTURING OPERATIONS MANAGEMENT
Status: Definitive
Code: **6504ENGIOM** (107417)
Version Start Date: 01-08-2011

Owning School/Faculty: Engineering
Teaching School/Faculty: Isle of Man College

Team	Leader
Gary Colquhoun	Y

Academic Level: FHEQ6
Credit Value: 12.00
Total Delivered Hours: 26.00
Total Learning Hours: 120
Private Study: 94

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	12.000
Practical	6.000
Tutorial	6.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Coursework	30.0	
Exam	AS2	Examination	70.0	2.00

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, MRP II 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

References

Course Material	Book
Author	Chase, R.B., Jacobs, F.R., and Aquilano, N.J
Publishing Year	2003
Title	Operations management for competitive advantage,
Subtitle	
Edition	
Publisher	McGraw Hill
ISBN	

Course Material	Book
Author	Waller, D, L.
Publishing Year	1999
Title	Operations management: a supply chain approach

Subtitle	
Edition	
Publisher	International Thomson Business
ISBN	

Course Material	Book
Author	Vollmann, T.E., Berry, W.L. and Whybark, D.C.
Publishing Year	2005
Title	Manufacturing Planning and Control for Supply Chain Management
Subtitle	
Edition	
Publisher	McGraw-Hill
ISBN	

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.