Liverpool John Moores University

Title:	Manufacturing Operations Management
Status:	Definitive
Code:	**7067ENG** (119380)
Version Start Date:	01-08-2016
Owning School/Faculty:	Maritime and Mechanical Engineering
Teaching School/Faculty:	Maritime and Mechanical Engineering

Team	Leader
Glynn Rothwell	Y

Academic Level:	FHEQ7	**Credit Value:**	10	**Total Delivered Hours:**	26
Total Learning Hours:	100	**Private Study:**	74		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	12
Practical	6
Tutorial	6

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1		70	2
Report	AS2		30	

Aims

To provide an understanding of modern, manufacturing operations management in terms of the planning and control of resources and processes.

Learning Outcomes

After completing the module the student should be able to:

1 Critically review the key characteristics of operations management in a range of organisations from project engineering to continuous process manufacture.
2 Demonstrate knowledge of manufacturing planning through a quantitative analysis of processes, resources and material flow.
3 Demonstrate understanding of the philosophy and application of lean manufacturing, continuous improvement and total quality management.

Learning Outcomes of Assessments

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

Examination	1	2	3
Report	1	2	

Outline Syllabus

The scope and impact of operations management. The input- output process model, process types and management issues in the context of volume/variety.

Process layout and material flow, modelling and simulation.

Forecasting models, independent demand and aggregate planning, Enterprise Resource Planning (ERP)

Medium to short term capacity planning, scheduling and sequencing.

Forward/backward scheduling and pull systems. Inventory costs, inventory measurement, supply chain management and global sourcing.

Lean manufacturing philosophy and techniques, 5S's and practical implementation issues, value stream mapping, level control and Kanban scheduling.

Quality conformance and quality control.

Total Quality Management (TQM) - achieving quality at source, the management organisational and implementation issues, continuous improvement techniques.

Learning Activities

Lectures supported by handouts, tutorials and practicals.
Individual student reports are required for the coursework.

Notes

This module provides an understanding of the key operational issues and the decisions faced by manufacturing managers in the globally competitive drive to make and deliver products to satisfy customer expectations.