

Liverpool John Moores University

Title: Manufacturing Management
Status: Definitive
Code: **7123MECH** (121512)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Engineering

Team	Leader
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Academic Level: FHEQ7 **Credit Value:** 20 **Total Delivered Hours:** 46
Total Learning Hours: 200 **Private Study:** 154

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	22
Tutorial	22

Grading Basis: 50 %

Assessment Details

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

Aims

To deliver an understanding fundamentals of logistics activities, supply chain design, production planning, inventory control, and process modelling and control and the ways that supply chain management affects manufacturing from an operational perspective and a strategic viewpoint.

Learning Outcomes

After completing the module the student should be able to:

- 1 Develop an awareness of the elements of logistics and supply chain, their mutual interaction and with other elements of business activity.
- 2 Show an understanding of the operation of the various forms of logistics/supply chain management systems and the relationships between them.
- 3 Explain current practice in purchasing, inventory management, manufacturing planning and distribution control, and customer service.
- 4 Apply key production planning methods in current use in manufacturing.
- 5 Appraise the effectiveness of a range of case studies in the field of manufacturing, logistics and supply chain operations management.

Learning Outcomes of Assessments

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

Examination	1	2	3	4	5
Coursework assignment	4				

Outline Syllabus

Development of Logistics and supply chain management (SCM). Logistics and SCM strategies including supply chain design and integration; SCM software; Modern SCM systems; Strategic decisions; logistics/SC strategy, design, planning and operations.

Purchasing and procurement management covering define the role of Purchasing/Procurement; Choose suppliers; Purchasing cycle; Types of purchasing; Purchasing model and applications.

Demand management & forecasting. Material control. Electronic interfaces and scheduling tools. Manufacturing environment types and relationship to planning systems.

Definition and scope of planning. 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. Impact of software. Inventory management systems, Economic Order Quantity (EOQ) modelling. Information flow and modelling, and applications to manufacturing operations.

Learning Activities

Lectures, tutorial and practicals

Notes

The module investigates manufacturing management techniques including many of

the requirements of a modern industrial based manufacturing centre