

## Liverpool John Moores University

Title: Supply Chain Modelling  
Status: Definitive  
Code: **7114MSE** (120736)  
Version Start Date: 01-08-2018

Owning School/Faculty: Maritime and Mechanical Engineering  
Teaching School/Faculty: Maritime and Mechanical Engineering

Team	Leader
Jun Ren	Y
Charles Roberts	

**Academic Level:** FHEQ7      **Credit Value:** 10      **Total Delivered Hours:** 18  
**Total Learning Hours:** 100      **Private Study:** 82

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Tutorial	6

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Written coursework containing qualitative and quantitative elements	100	

### Aims

*To equip students to use a variety of quantitative methods to analyse and solve problems in logistics*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Show a critical awareness of the quantitative tools available for logistics planning
- 2 Synthesise models to support decision making and operations throughout the supply chain
- 3 Systematically evaluate the role of KPIs in logistics management
- 4 Critically analyse supply chain planning and control issues

### **Learning Outcomes of Assessments**

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

Report	1	2	3	4
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### **Outline Syllabus**

*Logistics modelling*

*Materials management, MRP, fulfilment*

*Stockholding, order picking and replenishment*

*Demand forecasting and impact on the whole supply chain*

*Analysing time and inventory*

*Cost analysis*

*Cost and performance monitoring*

### **Learning Activities**

A programme of lectures supported by tutorials

### **Notes**

Through the use of appropriate modelling techniques, this module evaluates supply chain operations in a quantitative way in order to allow for optimisation of performance.