

Module Specification

Module Summary Information

1	Module Title	International Operations and Logistics
2	Module Credits	20
3	Module Level	7
4	Module Code	ENG7145

5	Module Overview
<p>This module will provide you with the opportunity to undertake a critical evaluation of supply chain management and its links to the marketplace, the distribution networks, the manufacturing process and the procurement activity required; ensuring that customers are served at high levels by lowering operational costs through effective logistics and supply chain operations.</p>	

6	Indicative Content																										
<table border="1"> <thead> <tr> <th>Lecture Topics</th> <th>Post-session Activity</th> </tr> </thead> <tbody> <tr> <td>Introduction to Distribution Systems</td> <td>Introduction into DRP systems and undertake some calculations.</td> </tr> <tr> <td>Integrating Distribution and Material Handling Systems</td> <td>Research to appreciate and understand how an integrated business and material handling system can improve the business.</td> </tr> <tr> <td>Creating Agile Distribution and Supply</td> <td>Research to appreciate the need for agility within the modern business environment.</td> </tr> <tr> <td>The role of Decision Science in Distribution</td> <td>Understanding how decision models are adopted within distribution.</td> </tr> <tr> <td>Co-ordinating the Flow of Materials through the Supply Chain</td> <td>Research into how materials flow effectively through the Supply Chain.</td> </tr> <tr> <td>Procurement and Inventory Management</td> <td>Analyse different models of procurement and inventory models, undertake some Finite replenishment calculations.</td> </tr> <tr> <td>The Green Supply Chain</td> <td>Research in to Green supply chains and how they can be developed.</td> </tr> <tr> <td>Strategic Supply Chain Management</td> <td>Research to understand the need of developing a strategic supply chain strategy.</td> </tr> <tr> <td>Introduction to Discrete Event Simulation</td> <td>Introduction to the basic concepts of Waiting Line Theory.</td> </tr> <tr> <td>Simulation of projects and Conceptual Modelling.</td> <td>Develop mathematical models such as Monto Carlo simulation using excel</td> </tr> <tr> <td>Understanding Simulation Output</td> <td>Research into different types of DSE software.</td> </tr> <tr> <td>Using Discrete Event Simulation Models</td> <td>Develop simple DSE models using an appropriate type of software, example SIMUL 8</td> </tr> </tbody> </table>		Lecture Topics	Post-session Activity	Introduction to Distribution Systems	Introduction into DRP systems and undertake some calculations.	Integrating Distribution and Material Handling Systems	Research to appreciate and understand how an integrated business and material handling system can improve the business.	Creating Agile Distribution and Supply	Research to appreciate the need for agility within the modern business environment.	The role of Decision Science in Distribution	Understanding how decision models are adopted within distribution.	Co-ordinating the Flow of Materials through the Supply Chain	Research into how materials flow effectively through the Supply Chain.	Procurement and Inventory Management	Analyse different models of procurement and inventory models, undertake some Finite replenishment calculations.	The Green Supply Chain	Research in to Green supply chains and how they can be developed.	Strategic Supply Chain Management	Research to understand the need of developing a strategic supply chain strategy.	Introduction to Discrete Event Simulation	Introduction to the basic concepts of Waiting Line Theory.	Simulation of projects and Conceptual Modelling.	Develop mathematical models such as Monto Carlo simulation using excel	Understanding Simulation Output	Research into different types of DSE software.	Using Discrete Event Simulation Models	Develop simple DSE models using an appropriate type of software, example SIMUL 8
Lecture Topics	Post-session Activity																										
Introduction to Distribution Systems	Introduction into DRP systems and undertake some calculations.																										
Integrating Distribution and Material Handling Systems	Research to appreciate and understand how an integrated business and material handling system can improve the business.																										
Creating Agile Distribution and Supply	Research to appreciate the need for agility within the modern business environment.																										
The role of Decision Science in Distribution	Understanding how decision models are adopted within distribution.																										
Co-ordinating the Flow of Materials through the Supply Chain	Research into how materials flow effectively through the Supply Chain.																										
Procurement and Inventory Management	Analyse different models of procurement and inventory models, undertake some Finite replenishment calculations.																										
The Green Supply Chain	Research in to Green supply chains and how they can be developed.																										
Strategic Supply Chain Management	Research to understand the need of developing a strategic supply chain strategy.																										
Introduction to Discrete Event Simulation	Introduction to the basic concepts of Waiting Line Theory.																										
Simulation of projects and Conceptual Modelling.	Develop mathematical models such as Monto Carlo simulation using excel																										
Understanding Simulation Output	Research into different types of DSE software.																										
Using Discrete Event Simulation Models	Develop simple DSE models using an appropriate type of software, example SIMUL 8																										

7	Module Learning Outcomes	
	On successful completion of the module, students will be able to:	
	1	Critically appraise current practices in operations management, evaluating a variety of delivery modes and sales order planning.
	2	Analyse and appraise best practices of the procurement cycle concepts.
	3	Evaluate and interpret the nature, scope and purpose, of strategies for efficient logistics and supply chain management.
	4	Evaluate the use of mathematical modelling and simulation within the context of developing efficient supply chains.

8	Module Assessment		
Learning Outcome			
	Coursework	Exam	In-Person
1-4		X	

9	Breakdown Learning and Teaching Activities	
Learning Activities	Hours	
Scheduled Learning (SL) includes lectures, practical classes and workshops, peer group learning, Graduate+, as specified in timetable	36	
Directed Learning (DL) includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning, as directed on VLE	N/A	
Private Study (PS) includes preparation for exams	164	
Total Study Hours:	200	