

Module code: MOD009041	Version: 2 Date Amended: 16/Jan/2023
-------------------------------	--

1. Module Title
Sustainable Supply Chain and Logistics

2a. Module Leader
Runwage Chihuri

2b. School
Faculty of Business Innovation and Entrepreneurship at ARU Peterborough

2c. Faculty
ARU Peterborough

3a. Level
7

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Sustainability poses a considerable challenge to global supply chains, which are inherently complex and involve many partners. This module explores the concept of being sustainable in a supply chain context: both in internal processes and decisions, but also in the wider supply network considering the role of responsible procurement strategy. The concept of triple bottom line, which considers the financial; social and environmental effect of business, is explored before turning to how to manage the immediate and eventual environmental effects of products and processes associated with converting raw materials into final products. Therefore, lifecycle management is studied and sustainable strategies and practices across core supply chain activities, including procurement; production; logistics; packaging; warehousing and distribution. Transportation/logistics is often seen one of the most significant factors in environmental sustainability. Hence, transport mode, planning and routing processes are evaluated in the supply chain context. There is practical consideration of the effect of transport mode decisions on: cost; speed; convenience and environment. Organisations and supply chains must respond to the pressures for environmental sustainability as corporate social responsibility and legislation begin to take hold. There is focus on how environmental impact will need to be monitored, as well as, more proactive practices such as the recycling, reclamation, remanufacturing and reverse logistics are being adopted. Closed loop supply chains and the associated activities of integrated waste management and reverse logistics are explored. The module also draws on the contextual issues, including: regulatory and legal frameworks, European and Global UN agreements, which continue to exert increasing pressure on supply chains to manage and improve environment impact. Consideration and application of carbon management ideas is also discussed. Overall, the module seeks to provide a contemporary view of sustainability and the future implications for managing supply chains.

6b. Outline Content

- Defining sustainability in a supply chain context and the concept of triple bottom line
- Lifecycle management ideas: managing a product from 'cradle to grave'
- Exploring strategies and practices for sustainability in the supply chain processes: procurement; production; logistics; packaging; warehousing and distribution
- Analysing the effect of multi-modal transport and mode decisions on cost; speed; convenience and environment
- Closed loop supply chains and reverse logistics Management of waste in supply chains
- Performance evaluation and monitoring of sustainability within the supply chain
- Frameworks for sustainability, including organisational based initiatives: ISO 19001 and wider legal, regulatory frameworks, including: EU Directives; carbon management and the role of the UN
- Site visit to a sustainable organisation/ an organisation pursuing a sustainability agenda

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources
None

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Demonstrate a critical awareness of the sustainability issues and lifecycle management and the ability to manage these ethical dilemmas with business demands;
2	Knowledge and Understanding	Evaluate strategies and practices for improving sustainability in supply chain processes, including: procurement; manufacturing; distribution; warehousing; transportation and packaging;
3	Knowledge and Understanding	Develop systematic understanding of KPIs in logistics and supply chain management and synthesis the KPIs into an effective performance management system;
4	Intellectual, practical, affective and transferrable skills	Demonstrate adaptability in complex and unpredictable environmental scenarios for sustainable sourcing and supply chains;
5	Intellectual, practical, affective and transferrable skills	Develop technical expertise in applying tools and techniques to evaluate the impact of supply chain decisions on the environment and supply chain performance;
6	Intellectual, practical, affective and transferrable skills	Analyse the impact of organizational policies and procedures, public, private and not for profit or third sector organisations on logistics or supply chain roles.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	0	N/A	N/A
Other teacher managed learning	49	1-6	2 hour Tutor-led Workshop (2 hr x 11 weeks) 2 hour Student led Workshop (2 hr x 12 weeks) Screencast or equivalent (20 minute maximum) x 10 weeks minimum.
Student managed learning	251	1-6	Learning activities provided and explained on Canvas and assessment preparation.
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1 4 6	30 (%)	Fine Grade	40 (%)
Multiple Choice Test (40 questions to be answered within 60 minutes)					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	1-3 5-6	70 (%)	Fine Grade	40 (%)
Individual Assignment 3000 words					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*). In addition, students are required to: (a) achieve the qualifying mark for each element of fine graded assessment as specified above (b) pass any pass/fail elements [* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]
--