O9-L3
Green Logistics

Standards

The Chartered Institute of Logistics & Transport

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O9-L3

Green Logistics

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Earlstrees Road

Corby

Northants

NN17 4AX

Tel: 01536 740100

Fax: 01536 740101

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Unit purpose and aim

This unit provides the necessary skills and knowledge to enable you to better understand many of the issues surrounding the subject of green or sustainable logistics. It will also help you to develop your ability to appreciate the environmental impact of the various modes of transport, logistics and supply chain operations, reverse logistics activity and how to improve energy efficiency within the logistics and transport sectors. The final section provides an introduction into the issues surrounding managing green change, environmental impact, performance measures and performance monitoring within logistics and supply chains.

Elements

O9-1	Green and Sustainable Logistics
O9-2	Sustainable Logistics and Supply Chain Operations Today and in the Future
O9-3	Green Logistics Management, Performance and Monitoring

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Element O9-1

Green and Sustainable Logistics

Learning Outcomes The learner will:		Assessment Criteria The learner can:	
01.01.	Understand the meaning of green and sustainable logistics and how logistics and supply chain operations impact positively and negatively upon the environment.	01.01.1.	Explain what green and sustainable logistics are and assess their negative and positive attributes
		01.01.2.	Evaluate and demonstrate how these negative and positive attributes impact upon the environment and socio-economic activities
01.02.	Understand the regulatory issues that are relevant to the reduction and control of non-sustainable logistics activities	01.02.1.	Describe a range of regulations, codes of practice, 'best practice' techniques and control mechanisms and how they act to improve the green credentials and sustainability of logistics and supply chain operations.

Indicative Content	
Green /Sustainable logistics	Definitions, explanations and examples of green logistics operations
Negative Impact	Negative attributes arising from logistics and supply chain operations in all modes and in various business sectors
Positive Impact	Positive attributes arising from logistics and supply chain operations in all modes and in various business sectors
Demand and supply	Variable demand and supply, the issues relating to demand driving ever more extended and complex supply chains, customer expectation, quality of service, customer service and supply chain efficiency in relation to sustainability
Regulation	Statutory controls, codes of practice, voluntary agreements and best practices aimed at improving the sustainability of logistics and supply chain activities and operations.

Element O9-2

Logistics and Supply Chain Operations Today and in the Future

Learning Outcomes The learner will:		Assessment Criteria The learner can:	
02.01.	Know the differing degrees, actual and perceived, of sustainability related to the main modes of transport and multi-modal operations	02.01.1.	Explain how the composition and characteristics of each of the main modes of transport relate to their sustainability and how multi-modal operations can be made more sustainable.
02.02.	Understand the impact of sustainable and green practices on logistics and supply chain management and operations	02.02.1.	Describe the management and operational practices and procedures that are, and can be, used in modern logistics and supply chain operations to provide more sustainable business operations.
02.03.	Understand the planned future direction that the logistics industry will need to follow to enable global, low carbon trade and how the various leading economies and technologies will drive the required changes.	02.03.1.	Demonstrate an appreciation of the planned changes in trading patterns, customer service, technological advances and new technologies that will enable low carbon trading to become the accepted trading standard of the future.

Indicative Content	
Modes of Transport	Analysis and ‘green’ comparison of the modal components, infrastructure and characteristics of road, rail, air, water and pipelines
Multi-modal operations	The tools and techniques used to ensure that multi-modal operations can be made more sustainable
Green operational techniques	The roles of unitisation, packaging, marketing, e-retailing, reverse logistics, recycling, waste management, consumerism, alternative and renewable energy options, carbon related concessions, etc. and how they can add value to profitable, efficient sustainable logistics operations
The future of global, low-carbon trade	The future structure and functions of supply chains, global trading patterns, new technologies and their drive towards increased sustainability.

Element O9-3

Green Logistics Management, Performance and Monitoring

Learning Outcomes The learner will:		Assessment Criteria The learner can:	
03.01.	Know what tools and techniques are used to assess and measure the environmental impact and sustainability of logistics and supply chain operations and how they can be used to monitor and improve sustainable businesses.	03.01.1.	Demonstrate an understanding of the overall impact logistics operations can have on the environment and develop basic environmental impact assessment methods
		03.01.2.	Develop green KPIs and know how to ensure that they act to improve both the business and the sustainability of the business.
		03.01.3.	Demonstrate an appreciation of fuel, energy, resource and cost monitoring techniques and improvement solutions
		03.01.4.	Explain the problems faced by logistics and supply chain operations when driving forward green strategies

Indicative Content	
Environmental Impact	The range and extent of the impact of logistics operations as a whole on the environment, and how environmental impact can be assessed through the use of EIAs
KPIs	The role of KPIs, how to develop KPIs that align with business strategy and add value and how KPIs are able to be monitored and performance evaluated.
Fuel, energy, resources and costs	How ranges of items under each heading can be monitored, controlled and improvement options developed
Changes towards sustainability	Issues related to managing change, communicating green benefits, adopting new technologies and ways of working, supply and demand and customer service.