

Green Transportation

ICTC's WIL Digital Green Transportation e-Learning course provides an intermediate understanding of green (sustainable) transportation. The course provides an overview of the main technologies, processes, and considerations for implementing green transportation practices. The course concludes with a case study which students develop a business case for sustainable methods in transportation industries.

Modules		Lessons	Learning Objectives	
Module 1	Introducing Net Zero	<ul style="list-style-type: none"> • Introduction to Net Zero • Understanding Traditional Transportation • What Changes Are Needed to Reach Net Zero? 	<ul style="list-style-type: none"> • Define net zero and how it is calculated. • List traditional forms of transportation and their impacts. • Summarize the changes needed at the business level. • Highlight the challenges businesses face in reducing their GHG emissions. 	Padlet Discussion & Quiz
Module 2	Introduction to Green Transportation	<ul style="list-style-type: none"> • Types of Green Transportation • The Power of Green Transportation 	<ul style="list-style-type: none"> • Identify types of green transportation and their environmental impact. • List types of in-use and future-use forms of green transportation. • Identify the power of green transportation on the economy and environment while relating this back to net zero 	Padlet Discussion & Quiz
Module 3	Electric Vehicle Technologies	<ul style="list-style-type: none"> • Green Transportation Technologies • Electric Vehicle Batteries • Building and Operating Domestic Electric Vehicle Systems 	<ul style="list-style-type: none"> • Recognize electric vehicle technologies. • Summarize how electric vehicle technologies contribute to environmental sustainability and reduce emissions. • Summarize the role of batteries in electric cars and reflect on the environmental impact of these batteries. • List the different skill sets and technical knowledge required to build and operate a domestic EV ecosystem 	Padlet Discussion & Quiz
Module 4	Sustainable Transportation	<ul style="list-style-type: none"> • Sustainable Transportation Strategies • Urban Planning and Design for Sustainable Transportation • Technological Trends in Sustainable Planning and Design for Transportation 	<ul style="list-style-type: none"> • Identify and compare different types of transportation strategies. • Explain how sustainable transportation can be impacted by urban planning and design. • Summarize technological trends that have the potential to shape urban transportation systems. 	Assessment
Module 5	Transportation Environmental Impact	<ul style="list-style-type: none"> • Air Sector • Marine Sector • Rail Sector • Road Sector 	<ul style="list-style-type: none"> • Identify how different sectors contribute to GHG emissions. • Highlight the environmental impact that occurs from the infrastructure, operations, and waste generation in each sector. • Summarize how transitioning to green transportation can mitigate the environmental impact in these sectors. 	Padlet Discussion & Assessment

<p>Module 6</p>	<p>The Business of Transportation</p>	<ul style="list-style-type: none"> • Intermodal Freight and Passenger Transportation • Economic Factors in Transportation • Canadian National Trade & Competitiveness 	<ul style="list-style-type: none"> • Describe the key steps and priorities of common intermodal transportation • Identify different types of intermodal transportation and summarize their movement within a supply chain or logistics network • Summarize the economic factors that influence the transportation industry and the national trade and competitiveness for the Canadian economy. • Compare the success of companies who have successfully implemented green transportation practices to the common challenges and opportunities of implementing these practices 	<p>Padlet Discussion & Assessment</p>
<p>Module 7</p>	<p>Career Opportunities in Green Transportation</p>	<ul style="list-style-type: none"> • Job Opportunities within Green Transportation • Building a Career in Green Transportation • What's Next? 	<ul style="list-style-type: none"> • Identify the roles available in the green transportation industry. • Recognize the opportunities where green transportation can help achieve net zero. • Identify goals and actions for starting a career in green transportation with suggestions. 	<p>Padlet Discussion & Assessment</p>