



Transport Modes and Strategies

2026-2027

Credits: 3

Code: 62002A-00035

Language of Instruction: English

Faculty

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Learning Outcomes

LO1	<i>program specific</i>	The Master in GSCM develops and critically evaluates end-to-end supply chain strategies that align with organizational goals and respond to dynamic market conditions.
	<i>course specific</i>	You compare modal economics, service, capacity, infrastructure and disruption scenarios to recommend an end-to-end transport strategy aligned with product, lane and organizational priorities.
LO3	<i>program specific</i>	The Master in GSCM analyzes, designs, and manages international logistics flows, distribution systems, and production networks with attention to efficiency, resilience, and sustainability.
	<i>course specific</i>	You design multimodal and intermodal transport flows that coordinate handovers, corridors and providers while balancing cost, reliability, flexibility, resilience and environmental performance.
LO5	<i>program specific</i>	The Master in GSCM develops supply chain solutions that incorporate environmental, social, and ethical considerations, contributing to sustainable and circular business models.
	<i>course specific</i>	You assess modal emissions, congestion, safety and labor impacts and apply EU decarbonization policies to design more sustainable transport solutions.

LO8	<i>program specific</i>	The Master in GSCM assesses regulatory frameworks, risk management practices, geopolitical challenges and governance structures, and formulates responsible and compliant supply chain policies.
	<i>course specific</i>	You assess transport regulations, geopolitical chokepoints and operational disruptions across modes and corridors to recommend compliant routing, governance controls and risk mitigations.
LO	<i>course specific</i>	

Course Content

The course will discuss how air, maritime, road, rail (and inland waterways/pipelines) shape end-to-end supply chains, and how to combine them into robust, sustainable transport solutions. The course combines lectures, work sessions, case studies, a workshop, and guest insights, allowing you to connect theory to practical managerial action.

We will build from fundamentals (mode economics and classic trade-offs in cost, speed, capacity, reliability, flexibility, security, and environmental impact) to applied decisions on corridors and product flows. Expect frequent use of real-world cases and scenarios, e.g., Rotterdam as an intermodal hub, and disruption case studies spanning pandemics, Brexit, chokepoints, cyber incidents, and geopolitics to pressure-test your choices.

A central theme is intermodality vs. multimodality: what they are, how they differ contractually/operationally, and why the handovers matter. We link this to policy and technology enablers (EU Green Deal, Fit-for-55, ETS, ReFuelEU/FuelEU, TEN-T, digital platforms, IoT, data sharing) that increasingly shape rather than merely regulate transport strategy.

You will practice quantifying trade-offs, including total landed cost, service levels, and CO₂, and utilise tools such as emissions tracking, KPI/SLA design, and scenario planning to make decisions that are defensible to executives.

Prerequisites

None

Method of Instruction

Lectures

Guest Lecture

Discussion

Exercises

Assessment Method & Criteria

Written Exam (Open Book)	70%
Transport Strategy Simulation	30%

Study Materials

Course materials (articles, slides, and case notes) will be posted on Brightspace.