GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Sustainable Mobility and Logistics (B001794)

Course size *(nominal values; actual values may depend on programme)*

Credits 3.0 **Study time 90 h**

Course offerings in academic year 2026-2027

A (semester 1) English Gent

Lecturers in academic year 2026-2027

Macharis, Cathy VUB lecturer-in-charge

Offered in the following programmes in 2026-2027	crdts	offering
Master of Science in Maritime Science	3	A

Teaching languages

English

Keywords

Sustainable Mobility and Logistics, intermodal transport, traffic models, mobility management, city distribution

Position of the course

This is an elective course in the Maritime Science program's economic-logistic pillar focusing on transport facilities within an evolving framework of sustainable mobility and logistics, including life-cycle assessment, external cost calculation and multi-criteria analysis

Contents

Logistics and mobility are essential aspects of the economy. At the same time, they also induce a lot of external effects such as emissions, climate change, noise nuisance and congestion. This course focuses on how logistics and mobility can be organized in a more sustainable way. Following the framework of the 8A of sustainable mobility and logistics, the course presents the most recent research results and trends in the transport sector. The lectures contain the recent advancements in terms of awareness, avoidance, act and shift, anticipation of new technologies, acceleration, actor involvement, adaptation and all in love."

Initial competences

Basic knowledge of logistics and economics

Final competences

1 Understanding the broader meaning of sustainable mobility and logistics
2 Having in-depth knowledge and understanding of the advanced methods and theories to schematize and model complex problems or processes in mobility and logistics.
3 Ability to reformulate complex transport problems in order to solve them (simplifying assumptions, reducing complexity)
4 Having a creative, problem-solving, result-driven and evidence-based attitude, aiming at innovation and applicability in industry and society
5 Having a critical attitude towards one's own results and those of others
6 Having consciousness of the ethical, social, environmental and economic context of his/her work and strives for sustainable solutions

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, Independent work

Extra information on the teaching methods

Lecture: collective contact-dependent moments during which the lecturer engages with learning materials Independent or External Form of Study (Self): independent study

Study material

None

References

Course text (Required) : Sustainable Mobility and Logistics, Handboek Edition 2017, Macharis, C. and J. Van Mierlo, VUB, 2220170004648, 2017

Course content-related study coaching

possibility of consulting lecturer or assistant

Assessment moments

end-of-term assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with open-ended questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

Written exam consisting of a number (4 to 6) of open questions

Calculation of the examination mark

100% Written exam