

Programme Overview MSc Transport, Infrastructure and Logistics 2018-19

Courses (80 EC)

1 Fundamentals (27 EC)

TIL4030-16	TIL Research and Design Methods
TIL4010-16	TIL Seminars
CIE4801-18	Transport Modelling
SEN1221	Statistical Methods for Behavioural Choice Analysis
ME44000	Introduction Transport Engineering and Logistics
ME44205	Quantitative Methods for Logistics

2 Specialisations (27 EC) (1 specialisation)

2.1 Specialisation P – Policy: Infrastructure, Planning and Environment

CIE5817	Assessment of Transport Infrastructure and Systems
CIE5816	Urban Regions Transport and Economics
SEN9715	Designing Transport Policies
SEN1711	Advanced Evaluation Methods for Transport Policy Decision-making
AR0191	Urban Sustainability
AR0093	Infrastructure and Environment Method Module
AR0551	People, Movement and Public Space

2.2 Specialisation D: Design Transport Systems and Networks

CIE5802-18	Advanced Transportation Modelling
CIE4811-18	Planning and Operations of Public Transport Systems
CIE5826	Railway Operations and Control
SEN1721	Travel Behaviour Research
AE4423	Airline Planning & Optimization
AE4446	Airport Operations

2.3 Specialisation O – Operations: Traffic, Technology & Control

CIE4825	Traffic Flow Modelling and Control Part 1
CIE5805-18	Intelligent Vehicles for Safe + Efficient Traffic: Design + Assessment
CIE5821	Traffic Flow Modelling and Control Part 2
SEN9110	Simulation Master Class
ME44305	System Analysis and Simulation
ME41000	Automotive Human Factors

2.4 Specialisation E – Engineering: Transport, Logistics & Supply Chains

CIE5830	Freight Transportation Systems: Analysis and Modelling
SEN9720	Logistics and Supply Chain Innovations
SEN9710	Decision Making in Multi-modal Transport Systems
ME44200	Intelligent Control for Transport Technology
ME44300	Coordination for Real-time Logistics
ME44310	Advanced Operations and Production Management

3 Electives (26 EC)

3.1 Electives T&P – Transport & Planning (at least 1 course)

CIE4811-18	Planning and Operation of Public Transport Systems
CIE4825	Traffic Flow Modelling and Control Part 1
CIE4831-18	Empirical Analysis for Transport and Planning
CIE4835	Transport Engineering and Optimisation
CIE4845	Emerging Topics for Transport & Planning
CIE5802-18	Advanced Transportation Modelling
CIE5803-18	Railway Traffic Management
CIE5805-18	Intelligent Vehicles for Safe and Efficient Traffic: Design and Assessment
CIE5810-18	Traffic Safety
CIE5815	Resilient Transport Systems
CIE5816	Urban Regions Transport and Economics
CIE5817	Assessment of Transport Infrastructure and Systems
CIE5821	Traffic Flow Modelling and Control Part 2
CIE5822	Active modes: Traffic and Transport
CIE4825	Advanced Public Transport Modelling and Operations
CIE5826	Railway Operations and Control
CIE5830	Freight Transportation Systems: Analysis and Modelling

3.2 Electives T&L – Transport and Logistics (at least 1 course)

SEN1131	Institutional Economics for Design in Socio-technical Systems
SEN1151	Law and Institutions

SEN1711	Advanced Evaluation Methods for Transport Decision-making
SEN1721	Travel Behaviour Research
SEN1741	Innovations in Transport and Logistics
SEN9110	Simulation Master Class
SEN9710	Decision Making in Multi-modal Transport Systems
SEN9715	Designing Transport Policies
SEN9720	Logistics and Supply Chain Innovations
SEN9725	Supply Chain Gaming
TPM004a	Transport Safety

3.3 Electives TEL – Transportation Engineering and Logistics (at least 1 course)

ME44100	Dynamics of Material and Equipment Interaction
ME44105	Structural Design with FEM
ME44110	Integration Project for Large-scale Equipment
ME44115	Discrete Element Method (DEM) Simulation
ME44125	Reliability and Maintenance of Transport Equipment
ME44200	Intelligent Control for Transport Technology
ME44210	Drive and Energy Systems
ME44300	Coordination for Real-time Logistics
ME44305	System Analysis and Simulation
ME44310	Advanced Operations and Production Management

3.4 External electives (at least 1 course)

3.4.1 Electives C&O – Control and Operations

AE4321-15	Air Traffic Management
AE4423	Airline Planning & Optimization
AE4424	Network Scheduling
AE4446	Airport Operations
AE4454-16	Life Cycle Analysis and Production
AE4465	Maintenance Modeling & Analysis
AE4468	Airline Maintenance Operations

3.4.2 Electives U – Urbanism

AR0093	Infrastructure and Environment Method Module
AR0191	Urban Sustainability
AR0551	People, Movement and Public Space
AR3CS010	Workshop Cross Domain 'Stad van de toekomst'
AR3CS020	Seminar Cross Domain 'Stad van de toekomst'
AR8002TU	Legal and Governance

3.4.3 Electives TIL – Other TIL fields

CIE4330	Ports and Waterways 1
CIE5306	Ports and Waterways 2
GEO1002	Geographical Information Systems (GIS) and Cartography
ME41000	Automotive Human Factors
ME41100	Intelligent Vehicles
ME46060	Engineering Optimization 1: Concept and Application
ME44070	Shipping Management
WM1301TU	Ethics of Transportation

3.5 Free electives and internship (optional)

3.5.1 Free Electives

Free electives

TIL6010	TIL Programming
TIL6020	TIL Scientific Assignment

3.5.2 Internship

CIE4040-09	Internship
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Projects and Thesis (40 EC)

4 5 Projects and Thesis

TIL4020-16	TIL Research Project
TIL5050-12	TIL Design Project
TIL5060	TIL Thesis