

Faculteit:	Civiele Techniek en Geowetenschappen, Techniek, Bestuur en Management, Werktuigbouwkunde, Maritieme Techniek en Technische Materiaalwetenschappen	Paraaf opleiding:	CURRICULUM FORMAT	
Opleiding:	MSc Transport, Infrastructure and Logistics	prof.dr. R.R. Negenborn, opleidingsdirecteur tot 1-1-19	4	
Opleidingscoördinator:	dr.ir. J.H. Baggen			
Ingangsjaar:	2018-2019			
Geldig voor cohort(en):	2018	Versienummer:	2.0	datum: 9 oct 2018

Vakcode	Vaknaam Engels	EC geheel	EC onderdelen	Contacturen	Start en duur onderwijs	Tentamen in periode	Verantwoordelijk Docent
1 Fundamentals (27 EC)							
CIE4801-18	Transport Modelling	6		6.0.0.0+4.0.0.0	1.1	1, 2	Dr.ir. R. van Nes
ME44000	Introduction Transport Engineering and Logistics	3			1.1	1, 2	Dr.ir. Y. Pang, dr.ir. D.L. Schott
ME44205	Quantitative Methods for Logistics	5			1.1-1.2	2, 3	Ir. M.B. Duinkerken
SEN1221	Statistical Methods for Behavioural Choice Analysis	5			1.2	2, 3	Prof.dr.ir. C.G. Chorus
TIL4010-16	TIL Seminars	1			1.3-2.2		Dr.ir. J.H. Baggen
TIL4030-16	TIL Research and Design Methods	7	D1: 5+D2: 2	0.4 or 8.0.0	1.1-1.2	tba	Prof.dr.ir. J.W.C. van Lint
2 Specialisations (27 EC) (1 specialisation)							
2.1 Specialisation P – Policy: Infrastructure, Planning and Environment (27 EC)							
AR0093	Infrastructure and Environment Method Module	3		X.0.X.0	1.4, 2.2		Dr. F.L. Hooimeijer
AR0191	Urban Sustainability	3		28 hours/sem	1.4		Ir. K.P.M. Aalbers/Ir. P.G. Teeuw
AR0551	People, Movement and Public Space	3		28 hours/sem	1.4	4, 5	Dr.ir. M.G.A.D. Harteveld
CIE5817	Assessment of Transport Infrastructure and Systems	4		0.0.6.0	1.3	3, 4	Dr.ir. A.J. van Binsbergen
CIE5816	Urban Regions, Transport and Economics	4		0.0.0.4	1.4	4, 5	Dr. B. Wiegman
SEN1711	Advanced Evaluation Methods for Transport Decision-making	5		X.0.0.0	2.1	1, 2	Dr. N. Mouter
SEN9715	Designing Transport Policies	5		0.2.0.0	2.2		Dr. J.C. van Ham
2.2 Specialisation D – Design: Transport Systems and Networks (27 EC)							
AE4423	Airline Planning and Optimization	4		0.4.0.0	2.2	2, 3	Dr.ir. B.F. Lopes dos Santos
AE4446	Airport Operations	4		0.0.4.0	1.3	3, 4	Ir. P.C. Roling
CIE4811-18	Planning and Operations of Public Transport Systems	6		4.0.0.0	2.1	1, 2	Dr. O. Cats
CIE5802-18	Advanced Transportation Modelling	4	2+2	0.2.0.0 + 0.2.0.0	1.2	2, 3	Dr.ir. A.J. Pel
CIE5826	Railway Operations and Control	4	4	0.0.0.4	1.4	4, 5	Dr. R.M.P. Goverde
SEN1721	Travel Behaviour Research	5			1.2	2, 3	Dr.ir. M. Kroesen

2.3 Specialisation O – Operations: Traffic, Technology and Control (27 EC)							
CIE4825	Traffic Flow Modelling and Control Part 1	6			1.2	2, 3	Dr. V.L. Knoop e.a.
CIE5805-18	Intelligent Vehicles f. Safe+Efficient Traffic: Design+Assessment	4		0.0.0.4+2 dagdelen	1.4	4, 5	Dr. M. Wang
CIE5821	Traffic Flow Modelling and Control Part 2	4			1.3	3, 4	Dr. V.L. Knoop e.a.
ME41000	Automotive Human Factors	3			1.4	4, 5	Dr.ir. R. Happee
ME44305	System Analysis and Simulation	5			1.3-1.4	3, 4	Ir. M.B. Duinkerken/Dr. W.W.A. Beelaerts
SEN9110	Simulation Master Class	5			2.1	1, 2	Prof.dr.ir. A. Verbraeck
2.4 Specialisation E – Engineering: Transport, Logistics and Supply Chains (27 EC)							
CIE5830	Freight Transportation Systems: Analysis and Modelling	5		0.0.5.0	1.3	3, 4	B. Wiegman
ME44200	Intelligent Control for Transport Technology	3			1.3	3	Dr.ir. Y. Pang
ME44300	Coordination for Real-time Logistics	3			1.4	4	Dr. R.R. Negenborn
ME44310	Advanced Operations and Production Management	6			1.3-1.4	3, 4	Dr. W.W.A. Beelaerts van Blokland
SEN9710	Decision making in multimodal transport systems	5			2.2		Dr. J. Rezaei
SEN9720	Logistics and Supply Chain Innovations	5			2.1	1, 2	Ir. M.W. Ludema
3 Electives (26 EC)							
3.1 Electives T&P – Transport and Planning (at least 1 course)							
CIE4811-18	Planning and Operations of Public Transport Systems	6	4+2	4.0.0.0	1	1, 2	Dr. O. Cats
CIE4825	Traffic Flow Modelling and Control Part 1	6			2	2, 3	Dr. V.L. Knoop e.a.
CIE4831-18	Empirical Analysis for Transport & Planning	6	4+2	0.0.6.0 + 0.0.4.0	2	2, 3	Dr.ir. W. Daamen
CIE4835	Transport Engineering and Optimisation	4			1	1, 2	Dr.ir. G. Correia
CIE4845	Emerging Topics for Transport & Planning	4			4	tba	Prof.dr.ir. B. van Arem
CIE5802-18	Advanced Transport Modelling	4	2+2	0.2.0.0 + 0.2.0.0	2	2, 3	Dr.ir. A.J. Pel
CIE5803-18	Railway Traffic Management	4		0.2.0.0 + 0.2.0.0	3	3, 4	Dr. R.M.P. Goverde
CIE5805-18	Intelligent Vehicles f. Safe+Efficient Traffic: Design+Assessment	4		0.0.0.4	4	4, 5	Wang, M.
CIE5810-18	Traffic Safety	4	3+1	0.4.0.0	2	2, 3	H. Farah
CIE5815	Resilient Transport Systems	4			3		Dr.ir. M. Snelder
CIE5816	Urban regions, Transport and Economics	4		0.0.0.4	4	4, 5	Dr. B. Wiegman
CIE5817	Assessment of Transport Infrastructure and Systems	4		0.0.6.0	3	3, 4	Dr.ir. A.J. van Binsbergen
CIE5821	Traffic Flow Modelling and Control Part 2	4		0.0.8.0	3	3, 4	Dr.ir. A. Hegyi
CIE5822	Active Modes: Traffic and Transport	4			3	3, 4	Prof.dr.ir. S. Hoogendoorn
CIE5825	Advanced Public Transport Modelling and Operations	4		0.0.4.0	3	3	Dr.ir. N. van Oort
CIE5826	Railway Operations and Control	4	4	0.0.0.4	4	4, 5	Dr. R.M.P. Goverde
CIE5830	Freight Transportation Systems: Analysis and Modelling	5		0.0.4.0	3	3, 4	B. Wiegman
3.2 Electives T&L – Transport and Logistics (at least 1 course)							
SEN1131	Institutional Economics f. Designing in Socio-technical Systems	3		4.0.0.0	1	1, 2	Prof.dr. R.W. Künneke
SEN1151	Law and Institutions	5		0.0.X.0	3	3, 4	Mr. J.M. Kooijman
SEN1711	Advanced Evaluation Methods for Transport Decision-making	5		X.0.0.0	1	1, 2	Mr.dr. N. Mouter
SEN1721	Travel Behaviour Research	5		0.6.0.0	2	2, 3	Dr.ir. M. Kroesen
SEN1741	Innovations in Transport and Logistics	5		0.0.0.X	4	4, 5	Dr. J.A. Annema
SEN9110	Simulation Master Class	5		4.0.0.0	1	1, 2	Prof.dr.ir. A. Verbraeck
SEN9710	Decision making in multimodal transport systems	5		0.4.0.0	2		Dr. J. Rezaei

SEN9715	Designing Transport Policies	5		0.2.0.0	2		Dr. J.C. van Ham
SEN9720	Logistics and Supply Chain Innovations	5		6.0.0.0	1	1, 2	Ir. M.W. Ludema
SEN9725	Supply Chain Gaming	5		0.6.0.0	2	2, 3	Ir. M.W. Ludema
TPM004a	Transport Safety	4		4.0.0.0	1	1, 2	Drs.ing. E.O. de Groot
3.3 Electives TEL– Transport Engineering and Logistics (at least 1 course)							
ME44100	Dynamics of Material and Equipment Interaction	3		0.2.0.0	2	2, 3	Dr.ir. D.L. Schott
ME44105	Structural Design with FEM	4		0.6.0.0	2	2	Ir. W. van den Bos/X. Jiang
ME44110	Integration Project Large-scale Equipment	5		0.0.2.0	3-4	4	Ir. W. van den Bos/X. Jiang
ME44115	Discrete Element Method (DEM) Simulation	4		0.0.4.0	3	3	Dr.ir. D.L. Schott
ME44125	Reliability and Maintenance of Transport Equipment	3		0.0.4.0	3	3	X. Jiang
ME44200	Intelligent Control for Transport Technology	3		0.0.2.0	3	3	Dr.ir. Y. Pang
ME44210	Drive and Energy Systems	3		3.0.0.0	1	1, 2	Dr.ir. H. Polinder
ME44300	Coordination for Real-time Logistics	3		0.0.0.2	4	4	Prof.dr. R.R. Negenborn
ME44305	System Analysis and Simulation	5			3-4	4	Ir. M.B. Duinkerken/Dr. W.W.A. Beelaerts
ME44310	Advanced Operations and Production Management	6			3-4	4	Dr. W.W.A. Beelaerts van Blokland
3.4 External electives (at least 1 course)							
3.4.1 Electives C&O – Control and Operations							
AE4321-15	Air Traffic Management	4		0.2.2.0	2-3	3, 4	Prof.dr.ir. J.M. Hoekstra
AE4423	Airline Planning and Optimization	4		0.4.0.0	2	2, 3	Dr.ir. B.F. Lopes dos Santos
AE4424	Network Scheduling	3		0.0.2.0	3		Dr.ir. B.F. Lopes dos Santos
AE4446	Airport Operations	4		0.0.4.0	3	3, 4	Ir. P.C. Roling
AE4454	Life Cycle Analysis and Production	3		0.0.2.0	3	3, 4	Prof.dr. R. Curran
AE4465	Maintenance Modeling & Analysis	4		0.4.0.0	2	2, 3	Dr.ir. W.J.C. Verhagen
AE4468	Airline Maintenance Operations	3		0.0.2.0	3	3, 4	Dr.ir. W.J.C. Verhagen
3.4.2 Electives U – Urbanism							
AR0093	Infrastructure and Environment Method Module	3		X.0.X.0	2, 4		Dr. F.L. Hooimeijer
AR0191	Urban Sustainability	3		28 hours/sem	4		Ir. K.P.M. Aalbers/Ir. P.G. Teeuw
AR0551	People, Movement and Public Space	3		28 hours/sem	4	4, 5	Dr.ir. S.G. van der Spek
AR3CS010	Workshop Cross Domain 'Stad van de toekomst'	3			1-2		Dr.ir. R. Cavallo
AR3CS020	Seminar Cross Domain 'Stad van de toekomst'	6			1-2		Dr.ir. J.H. Baggen
AR8002TU	Legal and Governance	7		tba	1		Mr. F.A.M. Hobma
3.4.3 Electives TIL – Other TIL fields							
CIE4330	Ports and Waterways 1	4		4.0.0.0	1	1, 2	Prof.dr.ir. M. van Koningsveld
CIE5306	Ports and Waterways 2	4		0.0.0.4	4	1, 2, 3	Prof.dr.ir. M. van Koningsveld
GEO1002	Geographical Information Systems (GIS) and Cartography	5		6.0.0.0	1	1, 2	Dr. G. Aguqiaro
ME41000	Automotive Human Factors	3		0.0.0.4	4	4, 5	Dr.ir. R. Happee
ME41105	Intelligent Vehicles	4		4.0.0.0	1-2	2, 3	Prof.dr. D.M. Gavrila
ME46060	Engineering Optimization 1: Concept and Application	3		0.0.0.4	4	tba	Dr.ir. M. Langelaar
MT44070	Shipping Management	5		0.0.4.0	3	3	Ir. J.W. Frouws
WM1301TU	Ethics of Transportation	3		0.0.2.0	3	3, 4	Dr. F. Santoni De Sio
3.5 Free electives and internship (optional)							

3.5.1 Free electives

	Free electives						
TIL6010	TIL Programming / Matlab	2		8x4	2		Ir. W. Schakel
TIL6020	TIL Scientific Assignment	7			1, 2, 3, 4		Dr.ir. A.J. van Binsbergen

3.5.2 Internship

CIE4040-09	Internship	10			1, 2, 3, 4		Dr.ir. J.H. Baggen
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4 Projects (10 EC)

TIL4020-16	TIL Research Project	3			1, 3		Dr. J.A. Annema
TIL5050-12	TIL Design Project	7			1, 2, 3, 4	Nvt	Dr. J.M. Vleugel

5 Thesis (30 EC)

TIL5060	TIL Thesis	30		Nvt	1, 2, 3, 4	Nvt	Dr.ir. J.H. Baggen/Dr. J.M. Vleugel
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