

Master programme Civil Engineering and Management

Transport Engineering and Management							
PROFILES							
Transport Planning and Modeling				Smart Transport Systems			
Profile Courses (minimum 30 EC)	Course code	EC	Quartile	Profile Courses (minimum 30 EC)	Course code	EC	Quartile
Transport Research Project (mandatory)	201100009	7,5	any	Transport Research Project (mandatory)	201100009	7,5	any
at least 3 of the following 4 courses:				at least 3 of the following 4 courses:			
Planning and Process Management	201500097	7,5	1	Intelligent Transport Systems	201100010	7,5	1
Transport Modeling	201100008	7,5	2	Traffic Operations	201100005	7,5	2
Land Use and Transport Interactions	201000025	7,5	3	Mathematical Optimization in Transport	201100012	7,5	3
Sustainable Transport	195420800	7,5	4	Traffic Management	201100006	7,5	4
Profile Electives				Profile Electives			
- Free to choose any of the 35 CEM-courses (pay attention to the required prior knowledge)				- Free to choose any of the 35 CEM-courses (pay attention to the required prior knowledge)			
- Below: list of CEM-courses that fit best in this profile (in addition to profile courses)				- Below: list of CEM-courses that fit best in this profile (in addition to profile courses)			
- Below: courses from other programmes that fit in this profile				- Below: courses from other programmes that fit in this profile			
(If you include courses from other programmes, we recommend you to make a selection, such that the majority of the programme is still formed by CEM-courses)				(If you include courses from other programmes, we recommend you to make a selection, such that the majority of the programme is still formed by CEM-courses)			
Legal & Governance Aspects	195800100	7,5	1	Public Transport in urban areas	201600131	7,5	2
Public Transport in urban areas	201600131	7,5	2	Data Science (EWI) + assignment	201400174	7,5	2 or 3
Data Science (EWI) + assignment	201400174	7,5	2 or 3	Sustainable Transport	195420800	7,5	4
Mathematical Optimization in Transport	201100012	7,5	3				
Infrastructure Management	195820500	7,5	4				
Policy Instr and Evaluation in Environm+Sust. (PA)	194106100	5	1	Technology and Sustainable Development (SET)	195740050	3	1
Policy Analysis in Public and Technol.Domains (PA)	201100077	5	1	Statistics and probability (IEM)	191506103	5	1
Methods of Sustainability Assessment (PA)	201100073	5	1	Discrete Optimization of Business Processes (IEM)	191820200	5	1
Public Governance & Policy Networks (PA)	194111240	5	3	Discrete Optimization (AM)	191581100	6	1
Stochastic Models (part of module 8, BSc-TW)	201400434	± 6	4	Electric Vehicle System Design (IDE)	201500009	5	2
Markov Chains and Stoch.Sim. (part of mod 8, BSc-TW)	201400434	± 6	4	Optimization Modelling (AM)	191581420	6	3
Simulation (IEM; follow up of Module 8 CiT/TBK)	191820210	5	1-2	Supply Chain & Transportation Management (IEM)	191820190	5	3
Technology and Sustainable Development (SET)	195740050	3	1	Simulation (IEM; follow up of Module 8 CiT/TBK)	191820210	5	1-2
Statistics and probability (IEM)	191506103	5	1	Scientific Computing (AM)	191551200	6	3
Discrete Optimization of Business Processes (IEM)	191820200	5	1	Stochastic Models (part of module 8, BSc-TW)	201400434	± 6	4
Discrete Optimization (AM)	191581100	6	1	Markov Chains and Stoch.Sim. (part of mod 8, BSc-TW)	201400434	± 6	4
Optimization Modelling (AM)	191581420	6	3				
Scientific Computing (AM)	191551200	6	3				
GENERAL COURSES							
Free Electives (max 15 EC)		EC	Quartile	Free Electives (max 15 EC)		EC	Quartile
Any course from UT or approved other university*				Any course from UT or approved other university*			
Thesis **		EC	Quartile	Thesis **		EC	Quartile
Preparation Master Thesis		7,5	-	Preparation Master Thesis		7,5	-
Master Thesis Traffic		30	-	Master Thesis Traffic		30	-
PLANNING AND CONSULTATION FOR THE MASTER PROFILES							
Track-coordinator: prof. dr. ir. Eric van Berkum							
Coordinator Master Theses: prof. dr. ir. Eric van Berkum							

* an "approved university" is any university in The Netherlands (not HBO-schools), or any international university that is partner of the UT or of the faculty of Engineering Technology. For a list of partner universities, see: <https://www.utwente.nl/ctw/student-mobility/partners/>
For courses from other universities: contact your track-coordinator.
The Free Electives should be at MSc-level and should have no overlap with other courses in your programme.

** For the procedure of how to start the course Preparation Master Thesis and your MSc-thesis project, see: https://www.utwente.nl/cem/master_programme/graduate/