

Integrated Civil Engineering Systems 2024-2025

PROFILES

Sustainability & Resilience			Civil Engineering Structures		
Profile Courses (≥25 EC)	EC	Quartile	Profile Courses (≥25 EC)	EC	Quartile
Civil Engineering Challenges*	5	1	Civil Engineering Challenges*	5	1
Water Footprint Assessment	5	1	Structural Health Monitoring for Smart Infrastructure	5	1
Sustainable Transportation Infrastructure	5	1	Data Analysis in Water Engineering and Management	5	2
Transitions in Civil Engineering*	5	2	Circular Systems Engineering	5	3
Sustainable Transport	5	2	Hydraulic Engineering	5	3
Sustainable Engineering	5	3	Advanced Soil Mechanics	5	3
Circular Systems Engineering	5	3	Subsurface Infrastructure Engineering	5	4
Urban Resilience in a Changing Climate	5	3	Building with Nature	5	4
Water and Climate	5	4	Geo Risk Assessment	5	4
Profile Electives (~40 EC) <i>- Free to choose any of the CEM courses offered (pay attention to the required prior knowledge)</i> <i>- Below: list of CEM-courses that fit best in this profile (in addition to profile courses)</i>			Profile Electives (~40 EC) <i>- Free to choose any of the CEM courses offered (pay attention to the required prior knowledge)</i> <i>- Below: list of CEM-courses that fit best in this profile (in addition to profile courses)</i>		
Suggested Profile Electives	EC	Quartile	Suggested Profile Electives	EC	Quartile
Legal & Governance Aspects	5	1	Sustainable Transportation Infrastructure	5	1
Hydrology	5	1	Hydrology	5	1
Planning & Process Management	5	1	BIM and 5D Planning	5	2
Construction Process Management	5	2	Rail Transport	5	2
Value Management	5	3	Mathematical Physics of Water Systems	5	3
Infrastructure Asset Management	5	4	Technology and Innovation in Road Construction	5	4
Land Use and Transport Interactions	5	4	Water and Climate	5	4
Building with Nature	5	4			
GENERAL COURSES			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**		
Other usefull courses (0 EC)	EC	Quartile	Other usefull courses (0 EC)	EC	Quartile
Boost your Competences	0	1,2,3,4	Boost your Competences	0	1,2,3,4
On the CEM/CME Canvas page there is a list of courses from other MSc programmes available that fit this track. In some occasions, you can include courses from other programmes as a profile elective. In that case you need approval of your track-coordinator.			On the CEM/CME Canvas page there is a list of courses from other MSc programmes available that fit this track. In some occasions, you can include courses from other programmes as a profile elective. In that case you need approval of your track-coordinator.		
Thesis ***	EC	Quartile	Thesis ***	EC	Quartile
Academic Research Skills in CEM/CME	5	2,4	Academic Research Skills in CEM/CME	5	2,4
Preparation Master Thesis	5	-	Preparation Master Thesis	5	-
Master Thesis Construction/Traffic/Water	30	-	Master Thesis Construction/Traffic/Water	30	-
PLANNING AND CONSULTATION FOR THE MASTER PROFILES			PLANNING AND CONSULTATION FOR THE MASTER PROFILES		
Track-coordinator: dr. Jord Warmink Coordination of Master Theses: see coordinators from CME, TEM or WEM			Track-coordinator: dr. Jord Warmink Coordination of Master Theses: see coordinators from CME, TEM or WEM		

* Second year MSc course

** 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 ET.

The Free Electives should be at MSc-level and should have no overlap with other courses in your programme. For courses from other universities, contact your track-coordinator.

*** [Click here for the procedure of how to start the course Preparation MSc-thesis and your MSc-thesis project](#)