

TRAIL basic course program

(version November 2024)

		<i>From 1 January 2024</i>	<i>Till 31 December 2023</i>			
	ECTS ²	TUD GS credits ^{2, 3}	TUD GS credits ^{2, 3}	By	Part ¹	TUD GS category ⁴
Introduction to TRAIL and the PhD student process (0.5d) ⁰	0.25	0.5	0.5	TRAIL	S	discipline/ research
I TRAIL Basic Courses	ECTS ²	TUD GS credits ^{2, 3}	TUD GS credits ^{2, 3}	By	Part ¹	TUD GS category ⁴
Fundamental Knowledge on Transport, Infrastructure & Logistics (4d) ⁵	1 - 4	3 - 5	4 - 5	OML ⁶	D	discipline
TRAIL Theories and Methods (3d) ⁵	1 - 3	3 - 4.5	3 - 5	TRAIL	T, M	discipline/ research
II General TRAIL Courses	ECTS ²	TUD GS credits ^{2, 3}	TUD GS credits ^{2, 3}	By	Part ¹	TUD GS category ⁴
Writing a Literature Review in the TIL- and Beta Domain (2d) ^{***}	0.5 - 2	1 - 4	2 - 5	OML	S	discipline/ research
Machine Learning (4d)	1 - 4	3 - 5	4 - 5	OML	M	discipline/ research
TRAIL Data-analysis and Statistics (3d)	1 - 3	1.5 - 2.5	3 - 5	TRAIL	S	discipline/ research
Societal Relevance of your PhD Research (1d)	0.25 - 1	0.5 - 2	0.5 - 2	TRAIL	S	discipline/ research
Writing and Publishing a TRAIL Research Article (1d)	0.25 - 1	0.5 - 2.5	1 - 2	OML	S	discipline/ research
Discrete Choice Analysis: micro-econometrics and machine learning approaches (4d)	2	4	3	TRAIL	T	discipline/ research
Stated Choice Data Collection (1.5d)	1	2.5	2	TRAIL	M	discipline/ research
From Horse to Porsche: innovations in transport and logistics (1d) ^{*/ **}	0.5 - 1	1 - 2	1 - 2	TRAIL	D	discipline/ research
Capita selecta: How to Write a Review Report (1d) ^{****}	0.5 - 1	1 - 2	1	OML	S	discipline
III TRAIL Specialisation Courses	ECTS ²	TUD GS credits ^{2, 3}	TUD GS credits ^{2, 3}	By	Part ⁷	TUD GS category ⁴
Traffic Flow Operations and AI (3d)	1 - 2	2 - 4	2 - 3	TRAIL	I	discipline
Behavioural Aspects in Transport (1d)	0.5 - 1	1 - 2	1 - 2	TRAIL	I	discipline
Transport Logistics Modelling (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline/ research
Facility Logistics Management (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline
Quantitative Modelling and Analysis of Supply Chains (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline/ research
Advanced Inventory Theory (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline
Freight Transport Management (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline
Logistics Planning (4d)	1 - 4	3 - 5	4 - 5	OML	L	discipline
Passenger Transport Systems (4d)	4	5	4 - 5	OML	L	discipline
Revenue Management (2d)	0.5 - 2	1 - 4	2 - 3	OML	L	discipline
Capita selecta – various (2d) ⁸	0.5 - 2	1 - 4	2 - 3	OML	L	discipline/ research
IV TRAIL Summer School	ECTS ²	TUD GS credits ^{2, 3}	TUD GS credits ³	By	Part ⁷	TUD GS category ⁴
2018 – Automated Driving (5d)	1 - 2	5	5	TRAIL	D	discipline
2019 – Cycling in Cities (5d)	1 - 2	5	5	TRAIL	D	discipline
2020 – Automated Driving (3d)	1	3	3	TRAIL	D	discipline
2021 – Cycling in Cities (3d)	1	2	2	TRAIL	D	discipline
2022 – Automated Driving (3d)	1	2	2	TRAIL	D	discipline
2023 – Cycling in Cities (3d)	1	2	2	TRAIL	D	discipline
2024 - Advances in Multi-Modal Cooperative Traffic and Mobility Management (4d)	1.5	2.5		TRAIL	D	discipline

Yearly
Every 1.5 years
Every 2 years

* = Up till 2019: ECTS 1 -2 / GS 1 – 3

** = 2021: ECTS 1 – 1.5 / GS 1 -2

*** = Up to and including 2024 Writing a Literature Review in the TIL Domain ECTS 1 - 4 / GS 3 - 5

**** = Up to and including 2023: ECTS 1 / GS 2

⁰ Between brackets number of course days

¹ D= Domain Knowledge

T = Theory

M = Methodology

S = Skills

² First number = participated in course – second number = participated in course + passed assignment/exam

³ The Promotor decides about the number of TUD GS credits to be administered in DMA

⁴ PhD student can choose either category, since TRAIL ‘methodology’ and ‘skills’ courses are strongly linked to the TRAIL ‘discipline’

⁵ Mandatory courses for the TRAIL Diploma

⁶ OML: Courses given by TRAIL and Research School Beta within the Graduate Program Operations Management and Logistics (GP-OML).

⁷ T: Transport, I: Infrastructure, L: Logistics

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