

Double bachelor programme Applied Mathematics and Technische Natuurkunde 2026/2027

B1 (cohort 2026/2027)

Course code	Name	Coord.	Lang- uage	EC
	Semester 1 (Sem 1)			9,0
202600448	Lab Course	TN	NL	5,0
202600315	Programming and Dataprocessing	TN	NL	4,0
	Quartile 01 (1A)			17
202200141	Linear Structures 1	AM	EN	5,0
202500460	Analysis 1	AM	EN	5,0
202000675	Project Dynamics and Relativity	TN	NL	2,5
202100094	Dynamics and Relativity	TN	NL	4,5
	Quartile 02 (1B)			16
202200236	Linear Structures 2	AM	EN	4,0
202400660	Analysis 2	AM	EN	6,0
202600455 *	Project Engineering systems	TN	NL	2,0
202600450 *	Engineering Systems	TN	EN	4,0
	Quartile 03 (2A)			19
202001344	Probability Theory	AM	EN	5,0
202500559	Signals and Transforms	AM	EN	5,0
202300196 *	Modeling 2 + Project AP	AM	EN	5,0
202000683	Instrumentation	TN	NL	4,0
	Quartile 04 (2B)			22
202200241	Numerical Mathematics	AM	EN	5,0
202200242	Differential Equations	AM	EN	5,0
202000677 *	Thermodynamics	TN	EN	4,0
202600451	Quantum Matter	TN	NL	4,0
202000688	Geometrical Optics	TN	NL	2,5
202600452	Project: Engineering Physics	TN	NL	1,5
Total EC first academic year				83,0

* Subject to change

B2 (cohort 2025/2026)

Course code	Name	Coord.	Lang- uage	EC
Quartile 05 (1A)				20,5
202600381	Mathematical Statistics 1	AM	EN	7,0
202300017	Analysis 3	AM	EN	5,0
202400597	Models	TN	EN	4,5
202000694	Classical Mechanics	TN	EN	4,0
Quartile 06 (1B)				17,0
202200094	Quantum Mechanics 1	TN	EN	5,0
202001485	Optics Theory	TN	EN	4,5
202300063	Optics Practicals	TN	EN	2,5
202600060	Linear Optimisation	AM	EN	5,0
Quartile 07 (2A)				19,0
202000701	Introduction Solid State Physics	TN	NL	7,0
202600413	Algebra	AM	EN	4,0
202600250	Statistical Physics	TN	NL/EN	5,0
202300116	Introduction to Electrodynamics²	TN	EN	3,0
Quartile 08 (2B)				21,0
202300023	Fluid Physics Theory	TN	EN	4,5
202300024	Fluid Physics Practicals	TN	EN	2,5
202200336	Markov Chains	AM	EN	4,0
202000706	Electrodynamics	TN	EN	6,0
202200337	Stochastic Models	AM	EN	4,0
Total EC second academic year				77,5

² Part of 202000682 Electromagnetics TN Mod03

B3 (cohort 2024/2025)

Course code	Name	Coord.	Lang- uage	EC
	Quartile 09 (1A)			20
	Minor Quartile 09			15
	Free electives ⁵			5
	Quartile 10 (1B)			20
	Minor Quartile 10	TN	EN	15
	Free electives ⁵			5
	Quartile 11 (2A)			20,0
202300067	Preparation Bachelor's assignment	TN	NL	3,0
202400632	Introduction to PDE	AM		4,0
202400631	Graph Theory	AM	EN	4,0
	Master oriëntation elective AM			4,0
202400634	Mathematics behind Data-Driven Methods ⁶	AM	EN	4,0
202400636	Model Reduction	AM	EN	4,0
202400635	Topics in Sequential Decision-Making	AM	EN	4,0
	Master oriëntation elective AP ⁷			5,0
202100223	Computational Physics	AP	EN	2,5/5,0
202600002	Remote Control of Experiments	AP	EN	5,0
202000710	Material Science	TN	EN	5,0
202600001	Machine Learning 6	AP	EN	5,0
202001413	Soft Matter Physics	AP	EB	5
202000711	Technical Optics	TN	EN	5,0
	Quartile 12 (2B)			20,0
201500405	Complex Function Theory	AM	EN	3,0
202400348	Reflection 3	AM	EN	2,0
202001433	Bachelor's Assignment AM-AP			15,0
	General Aspects (50%)			7,5
	Scientific Aspects (50%)			7,5
Total EC third academic year				80,0

⁵ Elective courses at M-level. In case of doubt, consult the study advisor

⁶ Machine Learning (202600001) and Mathematics behind Data Driven Methods (202400634) cannot be taken together due to overlap.

⁷ In the event of bottlenecks in the study planning **and** in consultation with the TN study advisers, a choice can be made from the

193530010	Nanophysics	Zandvliet	1A/Q1	5,0
202200044	Fundamentals of Photonics	Saive	1A/Q1	5,0
193570010	Advanced Fluid Mechanics	Huisman	1A/Q1	5,0
202100078	Quantum Information	Pinkse	1A/Q1	5,0
202200295	Laser Physics and Nonlinear Optics	Slot	1B/Q2	5,0
193570050	Advanced Quantum Mechanics	Filippi	1B/Q2	5,0
193565000	Capillarity Phenomena	Snoeijer	1B/Q2	5,0
202400605	Cooling Science and Technology	Vanapalli	2B/Q4	5,0
201800131	Numerical Methods for Engineers	Lammertir	2B/Q4	5,0
193500000	Biomedical Optics	Ghanbarz	2B/Q4	5,0