

Curriculum bachelor Technische Natuurkunde for students generation 2024

First academic year (B1 2024-2025)

Course code	Dutch name	English name ¹	EC
	TN SEM01 Semester 1	Semester 1	7.0
202300095	Experimenteren	Lab course	4.0
202300096	Programmeren en dataverwerking	Programming and Dataprocessing	3.0
	TN MOD01 Dynamica en Relativiteit	Dynamics and Relativity	11.0
202100094	<i>Dynamica en Relativiteit</i>	<i>Dynamics and Relativity</i>	4.5
202001215	<i>Calculus 1</i>	<i>Calculus 1</i>	4.0
202000675	<i>Project Dynamica en Relativiteit</i>	<i>Project Dynamics and Relativity</i>	2.5
	TN MOD02 Thermodynamica	Thermodynamics	12.0
202000677	<i>Thermodynamica</i>	<i>Thermodynamics</i>	4.0
202001224	<i>Calculus 2</i>	<i>Calculus 2</i>	4.0
202000680	<i>Project Thermodynamica</i>	<i>Project Thermodynamics</i>	4.0
	TN MOD03 Elektromagnetisme en Meten	Electromagnetism and Measurements	15.0
202000682	<i>Elektriciteit en Magnetisme</i>	<i>Electromagnetics</i>	5.0
202001232	<i>Vector Calculus</i>	<i>Vector Calculus</i>	2.0
202000683	<i>Instrumentatie</i>	<i>Instrumentation</i>	4.0
202000684	<i>Analytisch Programmeren</i>	<i>Analytical Programming</i>	1.0
202000685	<i>Project Elektromagnetisme en Meten</i>	<i>Project Electromagnetism and Measurements</i>	3.0
	TN MOD04 Quantum en Geometrische Optica	Quantum and Geometrical Optics	15.0
202000687	<i>Quantum Materie</i>	<i>Quantum Matter</i>	5.0
202001211	<i>Lineaire Algebra</i>	<i>Linear Algebra</i>	3.0
202000688	<i>Geometrische Optica</i>	<i>Geometrical Optics</i>	2.5
202000689	<i>Engineering Systems</i>	<i>Engineering Systems</i>	4.5
Total first academic year			60

¹ As printed on the transcript of records

Second academic year (B2 2025-2026)

Course code	Dutch name	English name	EC
	TN MOD05 Signalen. Modellen en Systemen	Signals. Models and Systems	15.0
202000691	<i>Signalen</i>	<i>Signals</i>	4.0
202400597	<i>Modellen</i>	<i>Models</i>	4.5
202400598	<i>Project Signalen. Modellen en Systemen</i>	<i>Project Signals. Models and Systems</i>	2.5
	Keuze 1 van 2:	Elective 1 of 2	
202000694	<i>Klassieke Mechanica</i>	<i>Classical Mechanics</i>	4.0
202000695	<i>Engineering Solid Mechanics</i>	<i>Engineering Solid Mechanics</i>	4.0
	TN MOD06 Golven. Interferentie en Waarschijnlijkheid	Waves. Interference and Probability	15.0
202001485	<i>Optica Theorie</i>	<i>Optics Theory</i>	4.5
202300063	<i>Optica Practica</i>	<i>Optics Practicals</i>	2.5
202200094	<i>Quantummechanica 1</i>	<i>Quantum Mechanics 1</i>	5.0
202200095	<i>Hilbertruimte</i>	<i>Hilbert Space</i>	3.0
	TN MOD07 Fysica van Gecondenseerde Materie	Condensed Matter Physics	15.0
202000701	<i>Inleiding Vastestoffysica</i>	<i>Introduction Solid State Physics</i>	7.0
202000702	<i>Statistische Fysica</i>	<i>Statistical Physics</i>	6.0
202000703	<i>Partiële Differentiaalvergelijkingen</i>	<i>Partial Differential Equations</i>	2.0
	202000704 TN MOD08 Continuüm Dynamica	Continuum Dynamics	15.0
202300023	<i>Vloeistoffysica Theorie</i>	<i>Fluid Physics Theory</i>	4.5
202300024	<i>Vloeistoffysica Practica</i>	<i>Fluid Physics Practicals</i>	2.5
202000706	<i>Elektrodynamica</i>	<i>Electrodynamics</i>	6.0
202000707	<i>Numerieke Methoden voor PDV</i>	<i>Numerical Methods for PDE</i>	2.0
Total second academic year			60

Third academic year (B3 2026-2027)

Course code	Dutch name	English name	EC
-	Minor/profilering		30.0
	TN MOD11 Oriëntatie Module	Orientation	15.0
202300067	<i>Vorbereiding Bacheloropdracht</i>	<i>Preperation Bachelor's Assignment</i>	3.0
202300068	<i>Statistiek in Wetenschappelijk Onderzoek</i>	<i>Statistics in Scientific Research</i>	2.0
	Keuzevakken 10EC:	Elective courses 10 EC	
202000710	<i>Fysische Materiaalkunde</i>	<i>Materials Science</i>	5.0
202000711	<i>Technische Optica</i>	<i>Technical Optics</i>	5.0
202100223	<i>Computational Physics</i>	<i>Computational Physics</i>	2.5/5.0
202100225	<i>Remote Control of Experiments</i>	<i>Remote Control of Experiments</i>	2.5/5.0
202100224	<i>Machine Learning</i>	<i>Machine Learning</i>	3.0/5.0
202001413	<i>Soft Matter Physics</i>	<i>Soft Matter Physics</i>	5.0
	202000715 TN MOD12 Bacheloropdracht	Bachelor's Assignment	15.0
	<i>Algemene Aspecten (50%)</i>	<i>General Aspects (50%)</i>	7.5
	<i>Fysische Aspecten (50%)</i>	<i>Physics Aspects (50%)</i>	7.5
Total third academic year			60