

Study programme Bachelor Applied Physics academic year 2026/2027

Per cohort

Studyprogramme total EC 180,0

B1 Cohorts '26

Course code	Name	Contact	Lang.	EC
	AP Semester 1 (SEM1)			9,0
202600315	Programming and Dataprocessing	J.S. Kanger	NL	4,0
202600448	Lab course	C.I. van Emmerik	NL	5,0
	AP Mod01 Dynamics and Relativity			11,0
202600370	Calculus 1	T.S. Craig	EN	4,0
202100094	Dynamics and Relativity	A.E.M. Smink	NL	4,5
202000675	Project Dynamics and Relativity	A. Marin	NL	2,5
	AP Mod02 Engineering Systems			10,0
202600450	Engineering Systems	A. van Houselt	EN	4,0
202001224	Calculus 2	T.S. Craig	EN	4,0
202600455	Project Sport Physics: Reflect and Improve	A.N. van Rossum	NL	2,0
	AP Mod03 Electromagnetics			15,0
202000682	Electromagnetics	H.L. Offerhaus	EN	5,0
202001232	Vector Calculus	T.S. Craig	EN	2,0
202000683	Instrumentation	J.M. van Oort	NL	4,0
202000685	Project: Electromagnetism and Measurements	K. Sotthewes	NL	3,0
202000684	Analytical Programming	S.G. Huisman	NL	1,0
	AP Mod04 States, Matter and Energy			15,0
202600451	Quantum Matter	A. Brinkman	NL	4,0
202000688	Geometrische Optica	J.S. kanger	EN	2,5
202000677	Thermodynamics	S. Vanapalli	EN	4,0
202001211	Linear Algebra	A. Stoorvogel	EN	3,0
202600452	Project: Engineering Physics	A.N. van Rossum	NL	1,5
Total EC first academic year				60,0

B2 Cohort '25				
Course code	Name	Contact	Lang- uage	EC
AP Mod05 Signals, Models and Systems				15,0
202000691	Signals	H.L. Offerhaus	EN	4,0
202600003	Models	K. Sotthewes	EN	4,0
202600004	Project Signals, Models and Systems	G.C. Vreman - de Olde	EN	3,0
Elective 1 of 2				4,0
202000695	Engineering Solid Mechanics	J.J. Homminga	EN	4,0
202000694	Classical Mechanics	C. Filippi	EN	4,0
AP Mod06 Waves, Interference and Probability				15,0
202200094	Quantum Mechanics 1	A. Brinkman	EN	5,0
202001485	Optics Theory	P.J.M. van der Slot	EN	4,5
202300063	Optics Practicals	J.S. Kanger	EN	2,5
202200095	Hilbert Space	M. Bokdam	EN	3,0
AP Mod07 Condensed Matter Physics				15,0
202000701	Introduction Solid State Physics	A. van Houselt	EN	7,0
202600250	Statistical Physics	S.J.A. de Beer	EN	5,0
202000703	Partial Differential Equations	B.J. Geurts	EN	2,0
202600251	Academic Skills	C.I. van Emmerik	EN	1,0
AP Mod08 Continuum Dynamics				15,0
202300023	Fluid Physics Theory	Huisman, S.G.	EN	4,5
202300024	Fluid Physics Practicals	Versluis, M.	EN	2,5
202000706	Electrodynamics	Snoeijer, J.H.	EN	6,0
202000707	Numerical Methods for PDE	Geurts, B.J.	EN	2,0
Total EC second academic year				60,0

B3 Cohort '24

AP Semester 5 (TN Min01 & TN Min02)				30,0
Students have 30 EC of profiling space that can be used for minor modules, a pre-master programme, studies at another institution (in the Netherlands or abroad), or the Teaching and Education minor (Dutch). Students must have obtained at least 75 EC (DB AM-AP & AP-CSE 100 EC) from the B1 and B2 curriculum before starting a minor. More information: https://www.utwente.nl/nl/tn/onderwijs/minor/				

Course code	Name	Coord.	Lang-	EC
	AP Mod11 Orientation			15,0
202300067	Preparation Bachelor's Assignment	C.I. van Emmerik	EN	3,0
202300068	Statistics in Scientific Research	tbd	NL	2,0
	Electives 10 EC ¹			10,0
202000710	Material Science	A. Brinkman	EN	5,0
202000711	Technical Optics	P.W.H. Pinkse	EN	5,0
202100223	Computational Physics	C. Filippi	EN	2.5/5.0
202600002	Remote Control of Experiments	tbd	EN	5.0
202600001	Machine Learning	M. Bokdam	EN	5,0
202001413	Soft Matter Physics	R. Vutukuri	EN	5,0
	AP Mod12 Bachelor's Assignment			15,0
202001433	Bachelor's Assignment	TN	EN	15,0
	General Aspects (50%)			7,5
	Physics Aspects (50%)			7,5
Total EC third academic year				60,0

¹ In the event of bottlenecks in the study planning and in consultation with the TN study advisers, a choice can be made from the following replacement electives.

Course code	Name	Coord.	Quartil	EC
193530010	Nanophysics	Zandvliet	1A/Q1	5.0
202200044	Fundamentals of Photonics	Saive	1A/Q1	5.0
193570010	Advanced Fluid Mechanics	Lohse	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	Lammertink	2B/Q4	5.0
193500000	Biomedical Optics	Ghanbarzadeh-Dagheyan	2B/Q4	5.0