

Curriculum B-AM&AP for cohort 2026

First year

Course code	Name	EC	Coord.
	<i>Q1.sem 1</i>		
202300095	Lab Course	4	AP
202600315	Programming and Dataprocessing	3	AP
	<i>Q1.1A</i>		
202200141	Linear Structures 1	5	AM
202500460	Analysis 1	5	AM
202100094	Dynamics and Relativity	4.5	AP
202000675	Project Dynamics and Relativity	2.5	AP
	<i>Q1.1B</i>		
202200236	Linear Structures 2	4	AM
202400660	Analysis 2	6	AM
202000677	Thermodynamics	4	AP
202000680	Project Thermodynamics	4	AP
	<i>Q1.2A</i>		
202500559	Signals and Transforms	5	AM
202001344	Probability Theory for AM	5	AM
202300196	Modelling 2 and Project for AM-TN	5	AM
202000683	Instrumentation	4	AP
	<i>Q1.2B</i>		
202200241	Numerical Mathematics	5	AM
202200242	Differential Equations	5	AM
202000687	Quantum Matter	5	AP
202000688	Geometrical Optics	2.5	AP
202200097	Project Engineering Systems	1.5	AP

Second year

Course code	Name	EC	Division
	<i>Q2.1A</i>		
202600381	Mathematical Statistics 1	7	AM
202300017	Analysis 3	5	AM
202400597	Models	4.5	AP
202000694	Classical Mechanics	4	AP
	<i>Q2.1B</i>		
202600060	Linear Optimisation	5	AM
202200094	Quantum Mechanics 1	5	AP
202001485	Optics Theory	4.5	AP
202300063	Optics Practicals	2.5	AP
t.b.a.	Quantum Mechanics	5	AP
	<i>Q2.2A</i>		
202600413	Algebra	4	AM
202000701	Introduction Solid State Physics	7	AP
202600250	Statistical Physics	5	AP
202300116	Introduction to Electrodynamics	3	AP
	<i>Q2.2B</i>		
202200336	Markov Chains	4	AM
202200337	Stochastic Models	4	AM
202300023	Fluid Physics Theory	4.5	AP
202300024	Fluid Physics Practicals	2.5	AP
202000706	Electrodynamics	6	AP

Third year

Course code	Name	EC	Division
	<i>Q3.1A</i>		
	Minor ^a	15	
	Elective ^b	5	
	<i>Q3.1B</i>		
	Minor ^a	15	
	Elective ^b	5	
	<i>Q3.2A</i>		
202400631	Graph Theory	4	AM
202400632	Introduction to PDE	4	AM
	<i>Master Orientation Elective (AM, 1 of 3):</i>	4	AM
202400634	Mathematics behind Data-Driven Methods ^c		
202400635	Topics in Sequential Decision-Making		
202400636	Model Reduction		
202300067	Preparation Bachelor's Assignment	3	AP
	<i>Master orientation elective^d (AP):</i>	5	AP
202600002	Remote Control of Experiments		
202000710	Material Science		
202600001	Machine Learning ^c		
202000711	Technical Optics		
202100223	Computational Physics		
	<i>Q3.2B</i>		
201500405	Complex Function Theory	3	AM
202400348	Reflection 3	2	AM
202001433	Bachelor's assignment ^e	15	AM&AP

^aBefore starting (part of) a minor, the student must have obtained at least 100 EC from the first two years of the Bachelor's programme.

^bThese elective courses should be at master's level.

^cThe student may take only one of the courses Mathematics behind Data-Driven Methods and Machine Learning, which are master orientation elective courses for AM and AP, respectively.

^dIn 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.

193530010 Nanophysics (block 1A)

202200044 Fundamentals of Photonics (1A)

193570010 Advanced Fluid Mechanics (1A)

202100078 Quantum Information (1A)

202200295 Laser Physics and Nonlinear Optics (1B)

193570050 Advanced Quantum Mechanics (1B)

193565000 Capillarity Phenomena (1B)

202400605 Cooling Science and Technology (2A)

201800131 Numerical Methods for Engineers (2A)

193500000 Biomedical Optics (2A)

^eThe student can only start with the Bachelor's Assignment if they fully passed the first year programme and if they obtained a minimum of 60 EC from the second and third year programme excluding the minor.