Double bachelor programme Applied Mathematics and Technische Natuurkunde 2023

B1 (cohort 2023/2024)

Course code	Name	Coord.	Lang-uage	EC
	Semester 1 (Sem 1)			**7,0**
202300095	Lab Course	TN	NL	4,0
202300096	Programming and Dataprocessing	TN	NL	3,0
	Quartile 01 (1A)			**17**
202200141	Linear Structures 1	AM	EN	5,0
202200143	Analysis 1	AM	EN	5,0
	Workshop Intercultural Awareness	AM	EN	-
202100094	Dynamics and Relativity	TN	NL	4,5
202000675	Project Dynamics and Relativity	TN	EN	2,5
	Quartile 02 (1B)			**18**
202200236	Linear Structures 2	AM	EN	4,0
202200237	Analysis 2	AM	EN	6,0
202000677	Thermodynamics	TN	EN	4,0
202000680	Project Thermodynamics	TN	NL	4,0
	Quartile 03 (2A)			**19**
202001344	Probability Theorie	AM	EN	5,0
202001343	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)			**19**
202200241	Numerical Mathematics	AM	EN	5,0
202200242	Differential Equations	AM	EN	5,0
202000687	Quantum Matter	TN	NL	5,0
202000688	Geometrical Optics	TN	NL	2,5
202200097	Project Engineering Systems2	TN	NL	1,5
		Total EC first academic year		**80,0**

[1] *The examiner of a unit of study is definitively determined in the assessment plan, which is published no later than two weeks before the start of education.*

[2] *Part of 202000688 Engineering Systems*

B2 (cohort 2022/2023)

Course code	Name	Coord.	Lang-uage	EC
	Quartile 05 (1A)			**20,5**
202300016	Mathematical Statistics 1	AM	EN	7,0
202300017	Analysis 3	AM	EN	5,0
202001435	Models for DB and PM	TN	EN	4,5
202000694	Classical Mechanics	TN	EN	4,0
	Quartile 06 (1B)			**20,0**
202200094	Quantum Mechanics 1	TN	EN	5,0
202001485	Optics Theory	TN	EN	4,5
202300063	Optics Practicals	TN	EN	2,5
202200095	Hilbertruimte	TN	EN	3,0
202300027	Linear Optimization	AM	EN	5,0
	Quartile 07 (2A)			**20**
202000701	Introduction Solid State Physics	TN	NL	7,0
202001362	Algebra	AM	EN	3,5
202000702	Statistical Physics	TN	NL	6,0
202300116	Introduction to Electrodynamics	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		**81,0**

[2] *Due to overlap between Algorithms Discrete Mathematics (Q7) and Numerical Methods for PDE, partial exemption for Numerical Methods for PDE in Q08 may be requested in consultation with the lecturer.*

B3 (cohort 2021/2022)

Course code	Name	Coord.	Lang-uage	EC
	Quartile 09 (1A)			**15**
	Minor Quartile 09			15
	Quartile 10 (1B)			**17**
202001485	Optics Theory	TN	EN	4,5
202300063	Optics Practicals	TN	EN	2,5
-	Free electives [5]			10
	Quartile 11 (2A)			**15,0**
202001373	Reflection on Mathematical Research I	AM		5,0
	Electives 10 EC			**###**
191520751	Graph Theory	AM	EN	*5,0*
201500372	Mathematical Optimization	AM	EN	*5,0*
202001377	Simultaneous Statistical Inference	AM	EN	*5,0*
202100223	Computational Physics	AP	EN	*2.5/ 5.0*
202100225	Remote Control of Experiments	AP	EN	*2,5/ 5,0*
202000710	Material Science	TN	EN	*5,0*
202100224	Machine Learning	AP	EN	*3.0/ 5.0*
202001413	Soft Matter Physics	AP	EN	*5,0*
202000711	Technical Optics	TN	EN	*5,0*
	Quartile 12 (2B)			**20,0**
201500405	Complex Function Theory	AM	EN	3,0
202001380	Reflection on Mathematical Research II	AM	EN	2,0
202001433	Bachelor's Assignment AM-AP			15,0
	General Aspects (50%)			*7,5*
	Sceintific Aspects (50%)			*7,5*
		Total EC third academic year		**67,0**

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