

Double bachelor programme Applied Mathematics and Technische Natuurkunde 2022

B1 (generation 2022/2023)

Course code	Name	Examiner	Coo rd.	Lang- uage	EC
Quartile 01 (1A)					21
202200140	Linear Structures 1	N.V. Litvak	AM	EN	5,0
202200143	Analysis 1	J. de Jong	AM	EN	5,0
202100094	Dynamics and Relativity	J.H. Snoeijer	TN	NL	4,5
202100095	Lab Course 1	I.C.W.T.A. van Veldhoven	TN	NL	2,0
202000674	Programming and Data Processing 1	J.S. Kanger	TN	NL	2,0
202000675	Project Dynamics and Relativity	A. Marin	TN	EN	2,5
Quartile 02 (1B)					21
202200236	Linear Structures 2	J. de Jong	AM	EN	4,0
202200237	Analysis 2	P.K. mandal	AM	EN	6,0
202000677	Thermodynamics	S. Vanapalli	TN	EN	4,0
202000678	Lab Course 2	I.C.W.T.A. van Veldhoven	TN	NL	2,0
202000679	Programming and Data Processing 2	J.S. Kanger	TN	NL	1,0
202000680	Project Thermodynamics	A.J. Onnink	TN	NL	4,0
Quartile 03 (2A)					23
202001344	Probability Theorie	W.R.W. Scheinhart	AM	EN	5,0
202001343	Signals and Transforms	G. Meinsma	AM	EN	5,0
202200239	modeling and programming 2	G. Meinsma	AM	EN	5,0
202000683	Instrumentation	I.C.W.T.A. van Veldhoven	TN	NL	4,0
202000685	Project Electromagnetisme en Meten	M.M.J. Dhalle	TN	NL	4,0
Quartile 04 (2B)					19
202200241	Numerical Mathematics	M. Schlottbom	AM	EN	5,0
202200242	Differential Equations	M. Carioni	AM	EN	5,0
202000687	Quantum Matter	A. Brinkman	TN	NL	5,0
202000688	Geometrical Optics	J.S. Kanger	TN	NL	2,5
202200097	Project Engineering Systems ¹	J.W.J. Verschuur	TN	NL	1,5
Total EC first academic year					84

¹ Part of 202000688 Engineering Systems

B2 (generation 2021/2022)

Course code	Name	Examiner	Coord.	Language	EC
Quartile 05 (1A)					20,5
202001348	Mathematical Statistics	A.J. Schmidt-Hieber	AM	EN	6,0
202001350	Analysis II	A.J. Schmidt-Hieber	AM	EN	5,0
202001435	Models	I.C.W.T.A. van Veldhoven	TN	EN	4,5
202001351	Prooflab Revisited: Diversity in Cultures		AM	EN	2,0
202000693	Project Signals, Models and Systems	A.N. van Rossum	TN	EN	3,0
Quartile 06 (1B)					20
202200094	Quantum Mechanics 1	A. Brinkman	TN	EN	5,0
202001354	Ordinary Differential Equations	H.G.E. Meijer	AM	EN	4,0
202001355	Systems Theory	G. Meinsma	AM	EN	4,0
202001356	Numerical Mathematics	B.J. Geurts	AM	EN	4,0
202001357	Project Dynamical Systems	H.G.E. Meijer	AM	EN	3,0
Quartile 07 (2A)					21
202000701	Introduction Solid State Physics	E.S. Kooij	TN	NL	7,0
202001364	Discrete Mathematics and Algebra	M.J. Uetz	AM	EN	6,0
202000702	Statistical Physics	F.G. Mugele	TN	NL	6,0
202000703	Partial Differential Equations	B.J. Geurts	TN	EN	2,0
Quartile 08 (2B)					19
202000705	Fluid Physics	R.M. van der Meer	TN	EN	7,0
202200338	Markov Chains	W.R.W. Scheinhardt	AM	EN	4,0
202000706	Electrodynamics	G.H.L.A. Brocks	TN	EN	6,0
202000707	Numerical Methods for PDE ²	B.J. Geurts	TN	EN	2,0
Total EC second academic year					80,5

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.

Third academic year (B3 2023)

Course code	Name	Examiner	Coor- rd	Lang- uage	EC
Quartile 09 (1A)					15
-	Minor Quartile 09	Minor specific			15
Quartile 10 (1B)					17
-	Free electives ⁵				10
202000697	Optics	R. Saive	TN		7,0
Quartile 11 (2A)					15,0
202001373	Reflection on Mathematical Research I		AM		5,0
	Electives 10 EC				10,0
191520751	<i>Graph Theory</i>	H.J. Broersma	AM	EN	5,0
201500372	<i>Mathematical optimization</i>	R.P. Hoeksema	AM	EN	5,0
202001377	Simultaneous Statistical Inference	K. Proksch	AM	EN	5,0
202100223	<i>Computational Physics</i>	C. Filippi	AP	EN	2.5/5.0
202000710	<i>Material Science</i>	A. Brinkman	TN	EN	5,0
202100224	<i>Machine Learning</i>	M. Bokdam	AP	EN	3.0/5.0
202001413	<i>Soft Matter Physics</i>	H.R. Vutukuri	AP	EN	5,0
202000711	<i>Technical Optics</i>	P.W.H. Pinkse	TN	EN	5,0
Quartile 12 (2B)					20,0
201500405	Complex Function Theory	H.J. Zwart	AM	EN	3,0
202001380	Reflection on Mathematical Research II	J.B. Timmer	AM	EN	2,0
202001433	Bachelor's Assignment AM-AP	Chair B-assignment Committee			15,0
	<i>General Aspects (50%)</i>				7,5
	<i>Scientific Aspects (50%)</i>				7,5
Total EC third academic year					67,0
Total EC Curriculum cohort 2022					231,5

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

⁶ Recommended Elective