

Curriculum 2019 - First year (as implemented in academic year 2019-2020)				
Quarter 1		Quarter 2		Quarter 3
B1	NWI-IPC020 Mathematical Structures (3 EC)	NWI-IPC017 Matrix Calculation (3 EC)	NWI-IPC006 Processors (3 EC)	NWI-IBC017 Calculus and Probability Theory (3 EC)
	SOW-BKI135 Introduction Artificial Intelligence A (3 EC)	NWI-IBC016 Combinatorics (3 EC)	NWI-IPC002 Languages and Automata (3 EC)	NWI-IPC025 Hacking in C (3 EC)
	NWI-IPC021 Security (6 EC)		NWI-IPC023 Requirements Engineering (3 EC)	NWI-IPC030 Research & Development: Project (3 EC)
	NWI-IPC031 Imperative Programming (6 EC)		NWI-IP1004 Logic and Applications (6 EC)	
	NWI-IPC033 Information Modeling and Databases (6 EC)		NWI-IP1005 Object Oriented Programming (6 EC)	
	Total: 15 EC		Total: 15 EC	

Curriculum 2019 - Second year (as implemented in academic year 2020-2021) - courses marked * have moved to a different quarter to accommodate the new specialisation set-up			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
NWI-IBC019 Operating Systems (3 EC)	NWI-IBC020 Information Systems (3 EC)	NWI-I0036 IT and Society (3 EC)	NWI-IBI007 Research Methods (3 EC)
NWI-IBC027 Algorithms and Datastructures (6 EC)		*NWI-IBC003 Computability (3 EC)	*NWI-IBC028 Complexity (3 EC)
NWI-IBC040 Functional Programming (6 EC)		*NWI-IBC026 Semantics and Correctness (3 EC)	NWI-IBC042 Parallel Computing (3 EC)
		NWI-IBC048 NWI-Networks and Security (6 EC)	
Specialisation: Choose 2 out of 3 tracks Data Science / Cybersecurity / Software Science in Q1-2 and for one of these tracks, also the corresponding course(s) in Q3-4. The remaining spring course(s) of the second specialisation will be taken in the third year.			
NWI-IBI008 Data Mining (6 EC) (DSc)		NWI-IBC036 Big Data (6 EC) (DSc)	
NWI-IPC026 Web Security (3 EC) (Cyb)	NWI-IBC034 Operating Systems Security (3 EC) (Cyb)	NWI-IBC023 Introduction to Cryptography (6 EC) (Cyb)	
*NWI-IBC041 New Devices Lab (6 EC) (SwS)		NWI-IBC024 Software Verification (3 EC) (SwS)	NWI-IBC025 Semantics and Rewriting (3 EC) (SwS)
Total: 15 EC	Total: 15 EC	Total: 15 EC	Total: 15 EC

Curriculum 2019 - Third year (as foreseen in academic year 2021-2022, subject to any changes)				
Quarter 1		Quarter 2		Quarter 3
B3	**NWI-IBC035 Academic Writing for Computing Scientists (3 EC)	**NWI-IBC035 Academic Writing for Computing Scientists (3 EC)	NWI-IBI010 Reflection and Vocational Orientation (3 EC)	NWI-IBC047 Law, Privacy and Identity (3 EC)
	Free electives (12 EC)		NWI-IBI001 Software Engineering (6 EC)	
	Minor Programme (15 EC)		NWI-IBC033 Bachelor Thesis (12 EC)	
	<i>The autumn semester is the so-called "mobility window", enabling students to take a semester abroad. In that case, you may propose a course from your university of choice which is equivalent to Academic Writing for Computing Scientists (subject to approval of the Examination board).</i>		Room for spring course(s) of the second specialisation (6 EC):	
			NWI-IBC036 Big Data (6 EC) (DSc) - or -	
			NWI-IBC023 Introduction to Cryptography (6 EC) (Cyb) - or -	
			NWI-IBC024 Software Verification (3 EC) (SwS)	NWI-IBC025 Semantics and Rewriting (3 EC) (SwS)
	Total: 30 EC in the first semester		Total: 15 EC	

* These courses have moved to a different quarter to accommodate the new specialisation set-up.

**It is currently foreseen that this course will be offered in Q1 as well as Q2, where students can choose one of these options.