Curriculum — Year 1

Quantum Computer Science

	Block 1		Block 2		Block 3	Block 4		Block 5		Block 6
	September	*October*	*November*	*December*	*January*	*February*	*March*	*April*	*May*	*June*
Core courses	Quantum Catch-up Course **(1 EC)**					Orientation Year 2 **(1 EC)**				Quantum in Society **(3 EC)**
	Quantum Computing **(8 EC)**				**Exam**					
	Quantum Information Theory **(8 EC)**				**Exam**					
Restricted Choice						*Restricted Choice Year 1 + Year 2: Together at least* **24 EC**				
	Introduction to Quantum Hardware **(6 EC)**					Full-stack Quantum Computing **(6 EC)**		Quantum Cryptography **(6 EC)**		
						Advanced Quantum Algorithms **(6 EC)**		Advanced Numerical Methods in Many-Body Physics **(6 EC)**		
			Near-term Quantum Computing **(3 EC)**		Quantum Programming Project **(3 EC)**	Quantum Hardware **(6 EC)**				Quantum in Business **(3 EC)**
Elective space	Elective Space *See list of suggested courses available*							*(Up to **12 EC** Free Choice, the remainder must be suggested (or restricted choice) courses)*		
	QuSoft Research Project **(3/6 EC)** *Has to fit in one of the six blocks*							*(Discuss with course coordinator)*		

Curriculum — Year 2

Quantum Computer Science

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
September October	November December	January	February March	April May	June

Core courses

Master Thesis & Seminar **(30 EC)** + Student Option **(18 EC)**
Planning is flexible, discuss with thesis coordinator and supervisor

Option 1	*Option 2*	*Option 3*
Relevant Electives **(18 EC)** *See list of suggested courses available*	Extended Master Thesis **(18 EC)**	Quantum Internship **(18 EC)**

Restricted Choice

Restricted Choice Year 1 + Year 2:
Together at least **24 EC**

Selected Topics in Quantum Information Processing **(6 EC)**

EC Overview

Total: 120 EC

Core Courses	**27 EC**
Master Thesis & Seminar	**30 EC**
Student Option *(Choose One)*	**18 EC**
→ Relevant Electives	
→ Extended Master Thesis	
→ Quantum Internship	
Restricted Choice + Relevant Electives	*at least* **33 EC**
→ With at least **24 EC** Restricted Choice	
Free Choice	*at most* **12 EC**