Study Plan for Students Reading **Physics Major with Specialization in Quantum Technologies**							
Year 1		**Year 2**		**Year 3**		**Year 4**	
Sem 1	**Sem 2**	**Sem 1**	**Sem 2**	**Sem 1**	**Sem 2**	**Sem 1**	**Sem 2**
Pair 1: Integrated Course in Social Sciences Pair 2: Integrated Course in Humanities	Pair 1: Integrated Course in Humanities Pair 2: Integrated Course in Social Sciences	Scientific Inquiry II	Artificial Intelligence	Communities and Engagement	Interdisciplinary I	**PC4288Q Honours Projects in Quantum Technologies (8MCs)*^**	
Pair 1: Scientific Inquiry I Pair 2: Integrated Course in Asian Studies	Pair 1: Integrated Course in Asian Studies Pair 2: Scientific Inquiry I	Writing	**PC2135 Thermodynamics and Statistical Mechanics**	**PC3130 Quantum Mechanics II**	Interdisciplinary II	**Major 15**	UE 4
Pair A: Data Literacy Pair B: Design Thinking	Pair A: Design Thinking Pair B: Data Literacy	Digital Literacy	**PC2193 Experimental Physics and Data Analysis**	**PC3231 Electricity & Magnetism II**	**PC3193 Experimental Physics II**	**SP2**	UE 5
PC1101 Frontiers of Physics	**PC2031 Electricity & Magnetism I**	**PC2130 Quantum Mechanics I**	**PC3236 Computational Methods in Physics**	**PC3235 Solid State Physics I**	**PC4228 Device Physics for Quantum Technology**	UE 2	UE 6
PC2174A Mathematical Methods in Physics I	**PC2032 Classical Mechanics I**	**PC3274A Mathematical Methods in Physics II**	UE 1	**PC3247 Modern Optics**	**SP 1**	UE 3	UE 7

Note: Students have to complete all CHS Common Curriculum courses in their first two years except for the following 3 courses:

- Communities and Engagement course – can be taken from Years 2 to 4
- Two Interdisciplinary courses – can be taken in Years 3 and 4

Graduation Requirements

Students must take at least one of the following courses in the UE space to fulfil the graduation requirements. It is recommended to take UPIP during a special term.

- PC3288 (or its variants) Advanced UROPS in Physics I
- PC4288 (or its variants) Honours Project in Physics (8 Units)
- PC UPIP course (minimum 4 Units, advised to be taken during a special term)
- NOC Internship Course

List of Courses for Specialization (choose five courses)

- PC3130 Quantum Mechanics II
- PC3233 Atomic and Molecular Physics I
- PC3288Q Advanced UROPS in Quantum Technologies I, on a related subject [^]
- PC4230 Quantum Mechanics III
- PC4243 Atomic and Molecular Physics II
- PC4246 Quantum Optics
- PC4228 Device physics for Quantum Technology

^Projects are approved by default if proposed by:
– any of the CQT PIs (https://www.quantumlah.org/people/staff.php?cat=research; type “principal” in the search window)
– Gong Jiangbin (https://www.physics.nus.edu.sg/our_faculty/prof-gong-jiangbin-deputy-head-research/)
– Mankei Tsang (https://www.physics.nus.edu.sg/our_faculty/a-prof-tsang-mankei/)
– Charles Lim (https://www.quantumlah.org/people/profile.php?id=353)

Suggestions for elective courses:

- PC3243 Photonics
- PC4236 Computational Condensed Matter Physics (towards graduate studies)
- PC4240 Solid State Physics II (towards graduate studies)
- PC4241 Statistical Mechanics (towards graduate studies)
- PC4274A Mathematical Methods in Physics III (towards graduate studies)