Primary Physics Major Study Plan for students who are interested in Solid State Physics and wish to pursue a career in industry							
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 II	**PC3235 Solid State Physics I**	**Major 14**
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	**PC2130 Quantum Mechanics I**	Interdisciplinary I	**PC3193 Experimental Physics II**	**Major 13**	**Major 15**
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**	**PC3233 Atomic and Molecular Physics I**	UE 7	UE 10
PC1101 Frontiers of Physics	**PC2174A Mathematical Methods in Physics I**	**PC2032 Classical Mechanics I**	**PC3274A Mathematical Methods in Physics II**	**PC2135 Thermodynamics and Statistical Mechanics**	UE 5	UE 8	UE 11
Major B Gateway Course (UE 1)	Major C Gateway Course (UE 2)	**PC2031 Electricity & Magnetism I**	UE 3	UE 4	UE 6	UE 9	UE 12

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 Elective Courses

A range of industry relevant courses are offered. Students can choose the elective courses from the following depending on their interest.

- PC3236 Computational Methods in Physics
- PC3241 Solid State Devices
- PC3242 Nanofabrication and Nanocharacterization
- PC3243 Photonics
- PC3247 Modern Optics
- PC3251 Nanophysics
- PC3270 Machine Learning for Physicists
- PC4228 Device Physics for Quantum Technology
- PC4236 Computational Condensed Matter Physics
- PC4240 Solid State Physics II
- PC4246 Quantum Optics
- PC4253 Thin Film Technology
- PC4259 Surface Physics
- PC4262 Remote Sensing
- PC4264 Advanced Solid State Devices

Please note that not all courses are offered in every academic year.

Students are also encouraged to read a second major or a minor from other disciplines. Please consult your academic mentor for advices.