

Primary Physics Major Study Plan for students intending to do postgraduate study in Condensed Matter Physics							
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	PC4288 Honours Projects in Physics (8 units)*	
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	PC4230 Quantum Mechanics III	PC4243 Atomic and Molecular Physics II
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	PC4236 Computational Condensed Matter Physics	PC4274A Mathematical Methods in Physics III
PC1101 Frontiers of Physics	PC2031 Electricity & Magnetism I	PC2130 Quantum Mechanics I	PC3236 Computational Methods in Physics	PC3235 Solid State Physics I	PC3233 Atomic and Molecular Physics I	PC4240 Solid State Physics II	UE 1
PC2174A Mathematical Methods in Physics I	PC2032 Classical Mechanics I	PC3261 Classical Mechanics II	PC3274A Mathematical Methods in Physics II	PC3247 Modern Optics	PC3243 Photonics	PC4241 Statistical Mechanics	UE 2

Note: Students are strongly encouraged 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.

- PC4288 Honours Projects in Physics (8 units, count as two courses)
- PC coded Undergraduate Professional Internship Programme (UPIP, minimum 4 units, advised to be taken during a special term)

List of Elective Courses

You may replace some of the PC3XXX and PC4XXX courses by research projects:

- PC3288 Advanced UROPS in Physics or PC3288N Advanced UROPS in Nanophysics

And/or choose any number of courses from the following list:

- PC3241 Solid State Devices
- PC4243 Atomic and Molecular Physics II
- PC4264 Advanced Solid State Devices