

Primary Physics Major Study Plan for students intending to do postgraduate study in Astrophysics or High Energy 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	Writing	Scientific Inquiry II	Communities and Engagement	Interdisciplinary I	PC4288/PC4288A Honours Projects in Physics (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	Digital Literacy	Artificial Intelligence	PC3130 Quantum Mechanics II	Interdisciplinary II	PC4230 Quantum Mechanics III	PC4241 Statistical Mechanics
Pair A: Data Literacy Pair B: Design Thinking	Pair A: Design Thinking Pair B: Data Literacy	PC2130 Quantum Mechanics I	PC2135 Thermodynamics and Statistical Mechanics	PC3231 Electricity & Magnetism II	PC3193 Experimental Physics II	PC4248 General Relativity	UE 2
PC1101 Frontiers of Physics	PC2031 Electricity & Magnetism I	PC3246 Astrophysics I	PC2193 Experimental Physics and Data Analysis	PC3232 Nuclear and Particle Physics	PC4245 Particle Physics	PC4249 Astrophysics II	UE 3
PC2174A Mathematical Methods in Physics I	PC2032 Classical Mechanics I	PC3274A Mathematical Methods in Physics II	PC3270 Machine Learning for Physicists / New AI Course	PC4274A Mathematical Methods in Physics III	PC3288/PC3288 A Advanced UROPS in Physics/Astroph ysics	UE 1	UE 4

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

The following courses are also recommended.

- PC5201 Advanced Quantum Mechanics
- PC5204B Special Topics in Physics: Analytic Approximations
- PC5206 Quantum Field Theory
- PC5211 Advanced Electrodynamics