

| 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 | Scientific Inquiry II | Artificial Intelligence | 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 | Writing | PC2135 Thermodynamics and Statistical Mechanics | PC3130 Quantum Mechanics II | Interdisciplinary II | PC4230 Quantum Mechanics III | PC4245 Particle Physics |
| 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 | PC4241 Statistical Mechanics | UE 2 |
| PC1101 Frontiers of Physics | PC2031 Electricity & Magnetism I | PC2130 Quantum Mechanics I | PC3261 Classical Mechanics II | PC3232 Nuclear and Particle Physics | PC3246 Astrophysics I | PC4248 General Relativity | UE 3 |
| PC2174A Mathematical Methods in Physics I | PC2032 Classical Mechanics I | PC3274A Mathematical Methods in Physics II | UE 1 | PC4274A Mathematical Methods in Physics III | PC3288/PC3288A Advanced UROPS in Physics/Astrophysics | PC4249 Astrophysics II | 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
- PC5211 Advanced Electrodynamics
- PC5204B Special Topics in Physics: Analytic Approximations
- PC5274 Advanced Mathematical Methods in Physics