

Natural Sciences (Physical) progression

The College's experience in guiding students in the Natural Sciences (Physical) Tripos has provided ample evidence that some courses in the second year and beyond carry a high risk of serious underperformance and even failure if a student has not achieved a certain level of attainment in relevant Part IA subjects. Directors of Studies will therefore require the levels stated below if they are to support certain choices.

1. Those who want to progress to the combination Physics A, Physics B and Mathematics in Part IB should have attained a mark of 65% or higher in *both* IA Physics *and* IA Maths. The reason for this requirement is that a student who has struggled with this combination of subjects at Part IB will find that they have few, if any, routes available to them for Part II. A different combination of subjects will give more options, and so reduce the risk of underperformance.
2. Those who want to progress to the combination Physics A, Physics B and a subject *other* than Mathematics in Part IB should have attained at least 60% in Part IA Physics.

The College does not support progression for the choices mentioned above if these thresholds have not been met. If you wish to follow a path that is not recommended you must discuss it with your Director of Studies at the earliest opportunity.

Alternative combinations of physical sciences subjects for Part IB chosen from Chemistry A, History and Philosophy of Science, Mathematics, Materials Science, and Earth Science have all proved to be excellent choices for progression.

For progression to the challenging Part II Physics and Part II Astrophysics courses similar considerations apply. The College recommends that students seeking to follow these courses should have marks of at least 60% in *both* Part IB Physics A *and* Physics B. For progression to Part II Chemistry students should attain at least 60% in their IB Chemistry paper(s). Those who do not achieve this threshold are advised to consider Part II Physical Sciences as the preferred option. Our experience is that those who take this option go on to do well academically, and to experience significantly less stress (and hence more enjoyment) than those who insist on taking courses in which they struggle academically

The Part III courses in the Physical sciences are challenging and are designed for first-class students or those who have come close to that threshold. After a low II.1 in Part II, the risk of attaining a II.2 or a failing mark in Part III is significant, however good the intentions. A much better option for those with these lower marks is to do a Masters course at another Russell Group or international university. Such courses are advantageous as you will be able to choose a programme that will suit you better, perhaps with a higher proportion of research (sometimes 100% research, *i.e.*, no more exams).

The College position is therefore that we recommend progression to Part III only in the event that a student has achieved 65% or better in Part II. Note that University regulations *require* a II.1 or better for progression to Part III in the Physical sciences; the College is not able to waive this rule.

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