

Entry into Part II and Part III Astrophysics of the Natural Sciences Tripos and expected prerequisites listed below. These are not absolutely binding and individual cases can always be discussed specifically.

To Part II Astrophysics

Students normally enter from either IB Natural Sciences or IB Mathematics.

From IB Natural Sciences

Students have usually taken Physics A, Physics B and Mathematics. Astrophysics part II courses build on material from both Physics A and Physics B. Students who have not taken either one of these will need to catch up on Quantum Mechanics, Electromagnetism, Classical Mechanics and Thermodynamics as necessary.

A good understanding of IA Mathematics for Natural Sciences can be sufficient but students who proceed to part III will find a substantial amount of material from IB Mathematics for Natural Sciences necessary.

From IB Mathematics

Students have usually taken all the applied/theoretical physics courses, Methods, Quantum Mechanics, Complex Methods (or Analysis), Electromagnetism, Fluid Dynamics and Variational Principles.

Material from all applied IA courses may be assumed.

To Part III Astrophysics

Students enter from Part II Astrophysics, Part II Mathematics, Part II Physics or externally as MAST students.

Part III Astrophysics takes most of its courses from part III Mathematics. Students can expect that a good understanding of any material from both IA and IB Mathematics for Natural Sciences to be assumed. Equivalently any material from the IA Mathematics courses (except Numbers and Sets) and the applied IB courses may be assumed.

Part II Astrophysics - a student with a II.1 at part II may proceed automatically to part III.

Part II Physics - each case is considered individually but evidence of at least a II.1 level of ability is expected.

Part II Mathematics. For admission to part III Astrophysics from part II Mathematics *in 2020 only* rather than basing our decision on performance in examinations we shall require

A) For students who pass part II and who achieved a first class in IB

A brief email from your Director of Studies confirming that you have attended supervisions for at least four theoretical physics courses.

B) For students who pass part II and who achieved a II.1 or below at IB both

1) A letter from your Director of Studies confirming that you have attended supervisions in at least four theoretical physics courses and explaining why you would have been expected to achieve at least a II.1 if the normal June examinations had gone ahead.

And

2) Satisfactory performance at an interview conducted by the part III course coordinator.

Our list of recognised theoretical physics courses in Part II Mathematics is:

Mathematical Biology, Classical Dynamics, Cosmology, Principles of Quantum Mechanics, Applications of Quantum Mechanics, Statistical Physics, Electrodynamics, General Relativity, Fluid Dynamics, Waves

Specific prerequisites and expectations for each course can be found in the course descriptions available online.