



Physics

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Course Aims

Physicists seek to gain a deeper understanding of the natural world, ranging from identifying the smallest fundamental particles right up to explaining how the Universe has evolved. Through your work you will use practical investigations to establish and then apply new theories and explanations. You will encounter lots of calculations along the way. A natural curiosity and a drive to explain how the world works is essential.

Qualifications Needed

An APS of 6+ and 6s in GCSE Science (including 6 in Physics/Physics components of Triple or Combined Science) and a grade 7 in Maths. Students must study A Level Mathematics alongside Physics.

Students must appreciate this is a hard course. As such, they must be motivated, willing to get involved and have a fundamental interest in Physics. Complete fluency and confidence in GCSE level Maths and Physics skills is required from the outset.

Course Structure

We follow the AQA Physics A2 course – specification number 7408. The course consists of nine modules of study:

- Measurements and their errors
- Particles and radiation
- Waves
- Mechanics and materials
- Electricity
- Further mechanics and thermal physics
- Fields and their consequences
- Nuclear physics
- ...and one further optional unit

Further details can be found here: <https://www.aqa.org.uk/subjects/science/as-and-a-level/physics-7407-7408/specification-at-a-glance>

The recommended textbook is 'AQA Physics: A level': OUP ISBN 978-0198351870

Assessment

Students will sit 3 exams at the end of the course. Each exam is 2 hours long. The exams contribute 100% to your final grade. Practical skills are tested through a practical endorsement for which you will achieve a pass or fail.

Complementary Subjects

...include Maths, Further Maths, Chemistry, Biology and Computer Science.

Future pathways

Physicists are able to think clearly and systematically, and solve complex problems – skills that are highly valued by employers in a wide range of fields. They are also excellent at communicating technical concepts and details to any audience.

Many students study A-level Physics in order to qualify for higher level study in subjects such as science, engineering and computing and it can be a valuable asset for a future career in medicine, economics and finance.