

A Level Physics

Examination Board: OCR (Physics A)
Specification Code: H556 – A Level

Why Physics?

Are you.....

- Interested in getting a qualification that leads to lots of different options at university, from Theoretical Physics to Applied Physics, Engineering and Mathematics?
- Interested in STEM careers?
- Curious about how things work?
- Interested in problem solving?
- Interested in doing a wide variety of practical experiments to test hypotheses?
- Curious how the universe works?
- Interested in how new particles are discovered?

By studying physics you're opening the door to a wide variety of rewarding careers. As well as learning about how the universe works, you'll get a broad training in skills that all employers value – an ability grasp concepts quickly, a determination to find coherent answers, not to mention problem-solving, analytical, mathematical and IT skills.

Physics A Level is one of the most universally accepted qualifications for progression to university. You will integrate the concepts studied with a range of practical experiments throughout each topic giving the course both an academic and practical focus.

Entry Requirements

QEHS standard entry requirements will apply and in addition students will be expected to have at least a grade 6 or above in GCSE / Level 1/2 Certificate (IGCSE for UK Schools) Physics or grade 6 in GCSE Combined Science. A grade 6 in Maths is also required.

Course Content

- Module 1: Development of practical skills– this module underpins the whole of the specification, and covers the practical skills that students should develop throughout the course. The practical skills in this module can be assessed within written examinations and within the Practical Endorsement.
- Module 2: Foundations of physics.
- Module 3: Forces and motion.
- Module 4: Electrons, waves, and photons.
- Module 5: Newtonian world and astrophysics.
- Module 6: Particles and medical physics.

A Level Practical Endorsement: Non examination. Reported separately as a PASS/FAIL grade. Candidates complete a minimum of 12 practical activities to demonstrate practical competence.

How does learning differ from Pre-16 study?

Post-16 physics differs from GCSE in a number of ways. Students need a mature attitude and the ability to study and learn independently; an appetite for work, for example reading, researching, problem solving and practising without specific direction. This is in addition to the assignments set. There is a lot of content to learn in A Level Physics as well as skills to master. The ability to learn key terms and produce extended pieces of writing is essential. The desire to apply your knowledge and skills to solve complex problems is essential. Maths is the language of physics; therefore the course does have a large mathematical element to it.

Prospects

It is essential for access to physics and most engineering courses. Physics is highly regarded for other subjects such as medicine, law and economics because of the thinking skills and problem solving involved. Subject cross-over with maths and chemistry makes maths, physics and chemistry a powerful combination to optimise your A Level grades.

Contacts

Please contact Mr. M. Watt, Head of Physics, if you wish to discuss this qualification further. If you are not sure which science is best for you to study please talk to your science subject teachers or Mrs Medcalf as Head of Science.