

POST 16 SUBJECT OVERVIEW

Name of Subject - A level Physics

Which Examination Specification is studied for this course?

AQA A-level Physics 7408

Why should I study this course?

If you are interested in how the universe works, from subatomic particles to supernovae and everything in between - including electrical circuits, materials science, nuclear physics, and much more - this course is for you.

This is a broad and wide-ranging course covering a full range of classical and modern physics, and includes a thorough programme of practicals.

Who is suitable to study this course?

Curious people who like learning new things and using what they know to solve problems, who are willing to work hard, and are confident and competent in Maths.

People who enjoyed Physics at GCSE and want to know more.

A-level Physics complements other advanced level courses - such as Maths, Chemistry and Biology - to prepare for higher education in a science-related subject or more general higher education courses.

What GCSE qualifications support the study of this course?

Studying either GCSE Physics or GCSE Combined Science will give you a good grounding in Physics to start A-level. Students should be comfortable with using and applying Maths in Science, so strong Maths skills are key.

What are the qualification requirements for this course?

Grade 6 or above in GCSE Maths

GCSE Physics (Separate Sciences): Grade 6

Or

GCSE Combined Sciences 6/6

How is the course delivered?

A-level Physics is delivered as 4 hours per week of taught lessons and students are expected to complete a further 4 hours of independent study outside of lesson time.

You will be given plenty of opportunity to apply the new ideas you learn, and there is practical work built into the course, as well as required practicals to carry out. There are also regular assessments which support you in your preparation for A-level examinations at the end of the course.

Subject Overview		
Half Term	Year 12	Year 13
Autumn	Particles and Radiation Mechanics and Materials	Gravitational Fields Electric Fields Magnetic Fields
Spring	Waves Electricity	Nuclear Physics Astrophysics
Summer	Further Mechanics Thermal Physics	Revision and Exams

How is the course assessed?

There are three 2 hour exams taken at the end of Y13.

Paper 1 - Measurements and their errors, Particles and Radiation, Waves, Mechanics and Materials, Electricity and Further Mechanics. 2hr written paper (85 marks) (34% of the A-level)

Paper 2 - Thermal Physics, Fields and their consequences, and Nuclear Physics. 2hr written paper (85 marks) (34% of A-level)

Paper 3 - Section A: Compulsory practical skills and data analysis.

Section B: Optional unit (Astrophysics) 2hr written paper (80 marks) (32% of the A- level)

There is also a Practical Skills Endorsement certificate which is graded as a pass or fail based on your ability to carry out 12 required practicals independently during the course.

What is our Recommended Subject Reading list to Support your Study?

<https://science.outwood.com/post-16-study/a-level-physics>

<https://www.alevelphysicsonline.com/aqa>

<https://www.youtube.com/user/ScienceShorts>

<https://www.physicsandmathstutor.com/physics-revision/a-level-aqa/>

<https://apod.nasa.gov/apod/astropix.html>