

Physics A Level



HEAD OF SUBJECT

Benedict Douglas-Scott

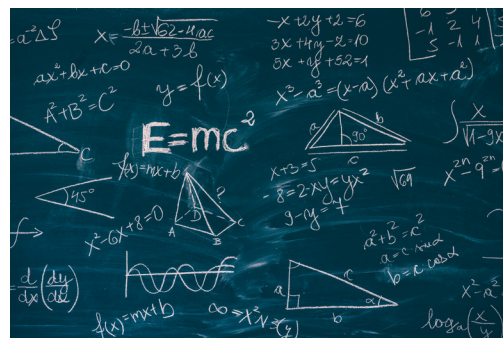
EXAM BOARD

OCR

COURSE DESCRIPTION

A Level Physics at The Grey Coat Hospital covers a broad range of study including Mechanics, Quantum physics, Astrophysics, Nuclear physics and Electromagnetism. A full overview of the content and assessment of the course is provided overleaf.

Studying physics will offer you a unique understanding of the fundamentals of our universe: the forces at play and the laws that hold the order of the cosmos together.



A Level Physics is a highly respected course and can open doors to a huge range of university courses and future careers.

SKILLS REQUIRED

- Ability to grasp abstract concepts and relationships
- Ability to problem solve and think logically;
- Ability to recall information and apply subject understanding to unfamiliar contexts;
- Ability to work with mathematical equations;
- Ability to use a wide range of equipment and techniques, both in the laboratory and in the field;
- Ability to apply investigative techniques, record results accurately and display them in a graphical format;
- Ability to identify and explain trends present in data;
- Ability to undertake independent research;

PROGRAMME OF STUDY

Modelling Physics

Development of practical skills in physics (M1)
Foundations in physics (M2)
Forces and motion (M3)
Newtonian world and astrophysics (M5)

Exam paper (100 marks)
2 hours 15 minutes

37% of total A Level

Exploring Physics

Development of practical skills in physics (M1)
Foundations in physics (M2)
Electrons, waves and photons (M4)
Particles and medical physics (M6)

Exam paper (100 marks)
2 hours 15 minutes

37% of total A Level

Unified Physics

All modules (M1-M6) are assessed

Exam paper (70 marks)
1 hours 30 minutes

26% of total A Level

EXAMINATION RESULTS

In 2025, students achieved 73.7% A*–C grades which compares to the 71.3% nationally. Across the 2025 physics cohort, 95% of students have progressed onto a STEM-related course at university. Of these students, 64% are now studying a physics-related course, including Astrophysics, Aerospace Engineering, Civil and Mechanical Engineering, Theoretical Physics and Planetary Exploration at a range of universities, including Imperial, Bristol, Edinburgh and Sheffield.

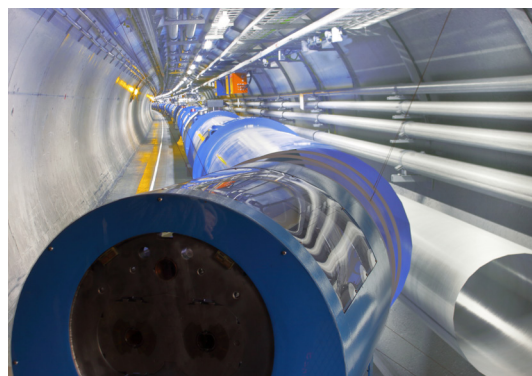
PRACTICAL ENDORSEMENT

Students will complete a minimum of 12 practical investigations, including investigating motion, waves, electrical properties, ionising radiation and quantum effects.

Practical skills are assessed in every examination.

ENRICHMENT ACTIVITIES

We offer a range of trips, including a Year 12 trip to the Physics is Action conference, a visit to the Royal Observatory in Greenwich and talks and virtual tours from CERN and Culham Centre for Fusion Energy. We are currently arranging a trip to CERN for this year's cohort.



Students have the opportunity to partake in a physics Olympiad competition where students can demonstrate their talents and be rewarded with recognised certificates and medals. Last year, 20% of the cohort achieved a Commendation, 60% achieved a Bronze medal, 10% achieved a Silver medal and 10% achieved the prestigious Gold medal.

We also have a range of speakers giving lectures for the students at Grey Coat, both in our school and in Westminster school, with whom our department collaborates extensively.

FUTURE CAREERS

Studying A Level Physics opens doors to a huge range of future courses and careers and is counted as a 'facilitating' subject by the Russell Group of universities.

For many universities, A Level Physics is a pre-requisite for studying Engineering or Medicine. Students go on to study Automotive engineering, Computer Science, Electronic Engineering, Mathematics, Mechanical engineering and Physics.

Our students have also been awarded positions on a wider range of degree courses, such as Biology, Chemistry and Chemical engineering.