



2021-22 Course Details

A-Level Physics (OCR)

Physics is fundamental to understanding how the universe functions. It also provides a route into many exciting Higher Education courses and careers. Our range of study takes us from the vastness of the universe to deep inside a single atom. Physical principles are introduced to develop understanding of the issues.

Physics provides a good grounding for anybody interested in pursuing a technical career related to science, engineering or technology, as well as pure science or mathematics. This course could lead to careers in areas such as Medicine, Radiography, Physiotherapy, Civil/Mechanical/Electrical/Electronic Engineering, Architecture, Computer Science or Sound Recording. It is also considered to be a key subject for anybody wishing to pursue a technical role in the Forces.

Qualities and qualifications needed

Grade 6 in GCSE Physics, Chemistry and Biology *or* Grade 6,6 in Combined Science. Students are also required to study A-Level Mathematics in order to select this course.

A willingness to learn and be challenged, you will need to be organised, self-motivated, Independent and be prepared for the Mathematical demands of this course.

How will the course be assessed?

Formal assessment includes:

- Home Learning Assessments
- End of topics tests
- Practical assessment



This course is 100% examination at the end of Year 13.

There is no coursework element or opportunity to resit any examination during the 2 years.

Practical Endorsement is achieved through the demonstration of a variety of practical techniques.



Course content

The course consists of six modules of work:

1. Development of practical skills in Physics
2. Foundations of Physics
3. Forces and motion
4. Electrons, waves and photons
5. Newtonian world and Astrophysics
6. Particles and Medical Physics

The development of practical skills (module 1) is embedded through the whole course, with the practical endorsement being achieved by successfully completing a range of practical activities.



Examinations

All modules are assessed via terminal examination. There are 3 papers:



Paper 1
2 hours 15 minutes

Content from modules 1, 2, 3 & 5.
(37% of the total A-Level)



Paper 2
2 hours 15 minutes

Content from modules 1, 2, 4 & 6.
(37% of the total A-Level)



Paper 3
1 hour 30 minutes

Content from all modules.
(26% of the total A-Level)

Methods of teaching and learning

The course is designed to be stimulating, enjoyable and challenging with the teaching of theory complimented by practical activities. Guided learning is accompanied by frequent formal and informal assessment as a means of checking understanding. Promoting student discussion and creating opportunities for active problem solving in class, as well as pre-assimilation of topics prior to learning, develops independence and confidence.



Subject teachers really work hard and genuinely care about the students. I felt supported by my subject teachers and I know they work really hard.

SRPA student