

# OCR A-Level Physics A

Raising Standards Leader – Dr Pamela Derry

## Department Information

The study of A level Physics with our experienced and well qualified Physics teachers begins with an introduction to the wide-ranging practical applications of Physics. Our well-resourced department allows all lessons to be conducted in laboratories using specialist, technical equipment for the practical endorsement component of the course. All students are issued with a course text on entry to the department and are expected to make regular use of the Pixl strategies provided to support and enhance their progress.

## Why study this course?

Studying Physics will:

- provide a stimulating and challenging course
- develop key employability skills such as problem-solving, logical reasoning, communication and resilience;
- support the study of other A level subjects
- provide excellent preparation for a wide range of university courses
- lead to a versatile qualification that is well-respected by employers and higher education

## Aims of the course

To prepare students for a world where the application of physics is everywhere. We prepare students for undergraduate degrees covering a range of physics specialisms.

## Course outline

This course is an excellent preparation for any student planning to take a physics-rich degree. Students taking A level Physics will benefit enormously from taking Mathematics in their A level choices as well.

The Advanced Physics course emphasises the understanding of physics and its applicability to a wide variety of situations in industry and everyday life. It also expects students to develop skills, attitudes and competencies that should be useful outside physics, especially those of individual investigation, the gaining of knowledge from a wide variety of sources, problem solving and communication skills. The thinking skills developed have wide-ranging applications in many careers. Students will be able to develop their knowledge, understanding and skills in an atmosphere of enjoyable enquiry.

## Physics - Year 1

**Module 1 – Development of practical skills in physics**

**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**

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## How am I assessed?

Progress is monitored by regular 6 week tests and assessed home work plus pixl support lessons to be completed outside of the laboratory in student's personal study periods.

There are 3 exams at the end of the course:

- Modelling physics - 100 marks 2hr 15min written exam assessing content of modules 1, 2, 3, 5 37% of full A-level
- Exploring physics - 100 marks 2hr 15min written exam assessing content of modules 1, 2, 4, 6 37% of full A-level
- Unified physics - 70 marks 1hr 30min written exam assessing content of modules 1-6 26% of full A-level
- Practical endorsement in physics (not examined)

## Where does this course lead?

The course is fully accepted by further education establishments leading to degree courses in Physics, Mathematics, Engineering and related subjects.