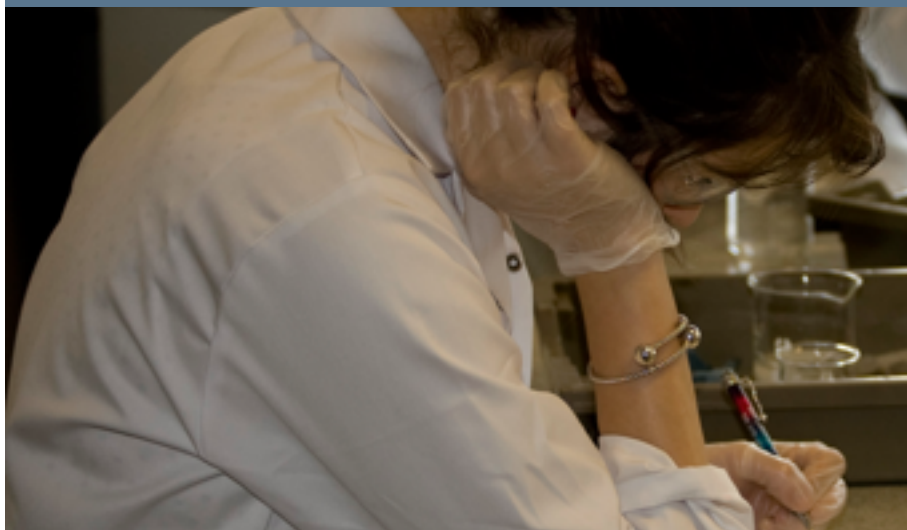


# Physics



OCR  
A-Level

## Overview

Physics is one of the core scientific subjects and is a necessary subject choice for those seeking employment in the aerospace, design or architecture fields. Physics asks big questions and asks students to consider the way the universe works.

## Aims

To develop essential knowledge and understanding in Physics and, where appropriate, the applications of Physics, and the skills needed for the use of this in new and changing situations

## Grade Requirement

Physics is a mathematically as well as a theoretically demanding subject. Students must gain 'AA' grades in Double Award Science or 'BBB' in Triple Award Science, with a 'B' grade at GCSE Maths and English Language. You must have at least 5 A\*-C grades, too.

## Complementary Subjects

A-Level Maths, Chemistry and Biology combine well and would complement Physics. Physics is becoming increasingly application driven with an appreciation of the technological developments and thus would complement Graphics and ICT.

### AS-Level

Mechanics

Electrons, Waves and Photons

Practical Skills 1

### A2-Level

The Newtonian World

Fields, Particles and Frontiers of Physics

Practical Skills 2

Physics is an extremely challenging and stimulating subject. It is the study of the universe and the laws that govern it. Physics covers the very small: atoms and electrons, to the very large: stars and galaxies. In physics we attempt to answer the fundamental questions— how did it all begin and how will all end?

The course aims to provide, through well-designed studies of theoretical and practical Physics, a worthwhile educational experience for all students. Physics should enable applicants to acquire sufficient understanding and knowledge to become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import development and as a foundation for employment or more advanced study. Over the course of the A-Level, students will develop essential knowledge and understanding in physics and, where appropriate, the applications of Physics, and the skills needed for the use of this in new and changing situations. Physics is a human endeavour which interacts with social, philosophical, economic, industrial and environmental issues and debates. Fundamentally, we hope to sustain and develop students' enjoyment of, and interest in, a difficult but satisfying subject.

You must be prepared to be disciplined and work hard. In physics we make music, but our music is with numbers and equations. In order to study physics you must be prepared to think outside the box, to be able to analyse and deduce.

The course prepares such candidates to progress into further or higher education, to follow courses in physics, engineering, one of the other sciences or related subjects, or to enter employment where a knowledge of physics would be useful. The course also provides an interesting and stimulating experience for the candidate who does not wish to pursue the subject further.

