

# Edexcel Advanced Level AS/A2 Physics



## Entry Requirements for AS Physics

Students should have achieved a minimum of 5 GCSEs (Please note that subjects can only be counted once); national data shows that this course is not suitable for students with an average GCSE points score of less than 47. In the past, students who have succeeded in this course have attained a minimum of grade B in Mathematics, English and Double Award Science or equivalent.

## Course Description

### AS Level

#### Unit 1 - Physics on the Go

This unit involves the study of mechanics (rectilinear motion, forces, energy and power) and materials (flow of liquids, viscosity, Stokes' Law, properties of materials, Young's modulus and elastic strain energy).

#### Unit 2 - Physics at Work

This unit involves the study of waves (including refraction, polarisation, diffraction and standing (Stationary) waves), electricity (current and resistance, Ohm's Law and non-ohmic materials, potential dividers, emf and internal resistance of cells, and negative temperature coefficient thermistors) and the wave/particle nature of light.

#### Unit 3 - Exploring Physics

This unit is assessed by means of an experiment that is founded on either a physics-based visit or a case study of an application of physics. Students write a report that is internally marked and moderated.

### A2 Level

Entry requirement for A2 is an AS in Physics and adequate mathematics ability (e.g. AS Maths or GCSE A/B)

#### Unit 4 - Physics on the Move

This unit involved the study of further mechanics (momentum and circular motion), electric and magnetic fields, and particle physics.

#### Unit 5 - Physics from Creation to Collapse

This unit involved the study of thermal energy, nuclear decay, oscillations, astrophysics and cosmology.

#### Unit 6 - Experimental Physics

This unit involves planning an experiment, carrying out an experiment and analysing experimental results.

## Career Opportunities and Pathways

Successful Physicists have a wide range of employment opportunity. Universities view physics as a highly desirable qualification in support of application.

## Subject staff contacts for further information:

Mr J Skurr at Kingsmead  
Mr I Windsor at Norton Canes