

GCE A-Level Physics

Exam board: AQA

Duration: 2 Years

COURSE DETAILS/UNITS AND AIMS

The A-Level Physics course is a 2 year course worth a maximum 56 UCAS points.

The course contains 5 topics each of which contain practical skills assessments that must be passed to gain the qualification.

Assessment

The course will be assessed at the end of the year with two 90 minutes exam papers. Paper 1 is made up of 70 marks of short and long answer questions on the 5 topics below. Paper 2 will be made up of 20 marks testing your practical skills and data analysis, 20 marks testing any of the content from the AS and 30 further marks of multiple choice questions. In addition at least 40% of the questions will test your practical skills and therefore your ability to understand and carry out practical's is also vital for success as is a good understanding of Higher tier GCSE maths.

Content

Higher Mechanics

The earlier study of mechanics is further advanced through a consideration of circular motion and simple harmonic motion (the harmonic oscillator). A further section allows the thermal properties of materials, the properties and nature of ideal gases, and the molecular kinetic theory to be studied in depth.

Fields and their consequences

The concept of field is one of the great unifying ideas in physics. The ideas of gravitation, electrostatics and magnetic field theory are developed within this topic. Practical applications considered include: planetary and satellite orbits, capacitance and capacitors, their charge and discharge through resistors, and electromagnetic induction

Nuclear Physics

This section builds on the work of Particles and radiation to link the properties of the nucleus to the production of nuclear power through the characteristics of the nucleus, the properties of unstable nuclei, and the link between energy and mass

Option Topic

SKILLS AND QUALIFICATIONS REQUIRED

The skills you will need to develop and extend will include practical lab skills, report writing and research techniques. There will be an expectation that after each practical you would write up the investigation in full during your private study time. Therefore you must also be comfortable with fully writing up investigations, analysing and presenting the data and able to draw conclusions based on your evidence.

Due to the technical nature of this subject entry requirements are **BB in your GCSE Sciences**, one of which must be Physics if you took the triple award and a **B for GCSE Mathematics**.

CAREER INFORMATION

A physics background can lead on to a huge range of jobs ranging from a pyrotechnician, particle physicist, computer games designer, structural engineer and renewable energy scientist. The sky really is the limit.



FURTHER INFORMATION PLEASE CONTACT - Mr D Huckin

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