

PHYSICS

WHERE CAN IT TAKE YOU?

Engineering

Engineers design and build everything around us. Physics A level prepares you for both degrees and apprenticeships in a range of engineering subjects.

Career Paths - Mechanical, Electrical, Aerospace, Electronics, Nuclear, Communication, Manufacturing, Systems, Civil, Clinical Medical, Building services, Process Engineering etc.....

Physics

The next step would be an undergraduate degree. There is a wide range of Physics related degree courses offered at universities. Physicists study the natural universe and try to uncover why objects exist and behave as they do. Astronomers use a wide range of scientific techniques to study the universe and its origins. Astronauts fly spacecraft or work as part of the crew.

Career Paths - Physicists, Astronomers, Nuclear Engineer, Astronauts Secondary school teachers, Weather Scientist.

Medical

Physics is a good A level to achieve if you are wishing to obtain a degree to go into the medical sector. For example Medical physicists research and develop techniques and equipment used to diagnose and treat illness. Radiographers use different kinds of radiation to treat ill or injured patients.

Career Paths - Medical Physicists, Radiographers, Veterinary Surgeons, Doctor, Dentistry, Nurse, Sports Scientist...

Design Careers

Logical thinking skills and the ability to "do maths" is acquired when studying Physics. Such skills are useful for Design degrees. eg Architects design and create plans and technical drawings of buildings. Software developers design, build and test computer programmes.

Career Paths - Architects, Structural Architects/Engineer, Software Developers, Computer Programmers.

Physics Related Careers

Many careers require the knowledge of Physics and the skills that studying the subject give you at A level. eg. Quantity surveyors manage the costs and budget of a building project from outset to completion. Palaeontologists study the remains, or fossils, of plants and animals.

Career Paths -Airline Pilots, Mathematics, Geoscientists, Oceanographers, Lawyers, Quantity surveyors, Palaeontologists. Agriculturalist.

Education

If you are thinking of going into teaching after your A Levels then a degree in the relevant field is desirable. After studying an undergraduate degree you would go onto study a PGCE to gain your teaching qualification.

Career Paths - Teaching Secondary, Lecturing, Tutoring.

FURTHER CAREER INFORMATION

These are just a small selection of the careers you could go on to pursue should you study A Level Physics.

Many of these careers require a university degree and therefore we would recommend looking into the specific requirements for each university course by heading to their respective websites.

PHYSICS

WHAT TO EXPECT

What does the course involve?

Physics is an exciting practical subject which provides a great basis for you to progress into further education, following courses in engineering or physics or to enter employment where knowledge of physics and its applications are useful.

Lessons are taught using real life examples and practical activities to reinforce the theory that is taught.

Amongst topics studied, the course includes the study of electricity, magnetism, forces and fields, Newton's laws/equations of motion and quantum physics.

You will be given the opportunity to develop your interest and enthusiasm as you progress through the course where the emphasis is on understanding rather than purely memory work.

The A Level OCR Physics `A` specification course offered provides an exceptionally good basis for you to progress into further education, to study various types of engineering courses or physics, or to enter employment where a knowledge of physics would be useful.

A textbook matching the specification will be provided along with opportunities to practise past papers in class.

All lesson resources are available on the colleges virtual learning environment [VLE].

Physics A content is split into six teaching modules: Modules 1 to 6, combined with the Practical Endorsement, constitute the full A Level.

The modules are summarised as:

- Module 1: Development of practical skills.
- 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.

Paper 1 assesses content from Modules 1, 2, 3 & 5

Paper 2 assesses content from Modules 1, 2, 4 & 6 plus any material appropriately linked within the specification from Modules 3 & 5

Paper 3 assesses content from Modules 1 to 6.

Can I take additional qualifications?

If you choose to study Physics, you will usually take it alongside two other A levels. Subjects which complement Physics include: Mathematics and Further Mathematics, Electronics, Chemistry and Biology.

How will I be assessed?

Three exams with weighting 37 %, 37 % and 26 % Practical skills leading to award of the Practical Endorsement are reported in the second year, but are not examined.

What are the costs?

There are no charges to study this course. However there may be some costs for trips.

What is the duration?

This is a two year course.

Entry Requirements

Grade 6 in GCSE Physics or Grade 66 in GCSE Science

Grade 6 in GCSE Mathematics due to the high mathematical content of the subject.

Grade 4 in GCSE English Language or English Literature.

Average GCSE score 5.5

Students are recommended to take A-Level Mathematics or Core Mathematics alongside Physics.