

WHAT WILL I STUDY?

The Laws of Physics control everything in our Universe from the smallest particles to the largest galaxies.

You will learn about the overarching theories of gravity, electromagnetic fields and nuclear forces, and how they govern our world and all worlds. You will also discover the mind-blowing subject of quantum Physics.

In year two, there is an emphasis on astrophysics and medical physics, as examples of applications in the real world. You will be assessed on a range of scientific and mathematical skills, as well as building competency of practical abilities.

You will also be encouraged to take part in the British Physics Olympiad competition, to showcase your enthusiasm for the subject.

You will understand and be able to explain why natural processes occur, such as why the sun shines, why astronauts appear 'weightless' in space and more.



A LEVEL PHYSICS

ENTRY REQUIREMENTS

A minimum of 5 GCSE subjects graded 9-5 including English and 2 GCSE subjects graded 9-6 including Maths and Combined Science / Physics.

COURSE FEATURES

- Academic Development opportunity to take additional qualifications and develop skills alongside academic studies.
- · Work placement.
- · Partnerships with some of the UK's leading employers.
- Programme designed in response to the findings of some of the UK's leading universities and businesses.
- · Exceptional learning facilities.
- Small class sizes.
- Additional academic support tutorials delivered individually or in small groups.
- · Mock interviews.
- Opportunities to undertake enterprise projects and compete in local and national competitions.
- Enrichment opportunities that add value to applications for higher study and chosen careers, including an enhanced guest speaker programme.

Students undertake a work placement, voluntary and charity work opportunities.

These experiences will help you build vital skills and expand your personal development, as well as boosting applications to top universities and employers.

The college's strong industry links, combined with its purpose built state-of-the-art facilities, provide the foundations for establishing a dynamic career, with the support of industry experienced professional tutors.

ACADEMIC DEVELOPMENT

Students benefit from a range of extra qualifications, work placements, voluntary work and masterclasses, delivered by industry experts. Options include:

Guest speakers include a Nuclear Astrophysicist based at Vancouver University, giving their insight on the everyday use of a particle accelerator.

STEM ambassadors are involved in supporting you through the Gold CREST Award. You can choose a STEM project of your choice to work on in your second year of study; this project is graded by experts in industry. You are encouraged to participate in the British Physics Olympiad to prepare for university.







COURSE LENGTH

A Level Physics is full-time for two academic years.

HOW WILL I BE ASSESSED?

Through a combination of written exams and practical assessments.

WHAT CAN I PROGRESS TO?

You may progress to study at a Russell group university for a degree in a related subject.

UNIVERSITY COURSES

| Accountancy | Natural Sciences |
|-----------------------|------------------------------|
| Aerospace Engineering | Particle Physics |
| Geology | Physics with Astrophysics |
| Law | Physics with Medical Physics |
| Materials Science | Pure Physics |
| Medical Biophysics | Radiography |
| Medicine | Software Engineering |

CAREER ASPIRATIONS

The vast majority of engineering careers will require Physics, such as: Aerospace Engineering, Mechanical Engineering and Civil Engineering

| Data Scientist | Pharmacology |
|-----------------------|-----------------------|
| Environmental Careers | Optometry |
| Geophysicist | Nuclear Physicist |
| Law | Research Physicist |
| Medical Physicist | Teaching |
| Medicine | Theoretical Physicist |



