

A Level Physics



Course Level: Level 3

Campus: Newcastle

Subject Type: Science & Maths

Course Overview:

Venture into the realm of scientific inquiry and exploration with our A Level Physics course. Through practical experiments, theoretical study, and problem-solving exercises, students develop the ability to analyse data, formulate hypotheses, and draw evidence-based conclusions into the workings of the natural world and the laws that govern it.

What's Covered:

Physics has been called the most fundamental of all sciences, and its scope is immense, ranging from the infinitesimally small - for instance particles within atomic nuclei - to the massive and vast galaxies in space and everything in between. It is a science which develops theories and uses models to make predictions of real world behaviour.

The course consists of a broad selection of fundamental Physics concepts which build on ideas learnt at GCSE and NSCG has excellent facilities for Physics students, with all sessions taking place in a dedicated Physics laboratory. You will learn through a varied programme of laboratory and practical work, lectures, discussions and team activities. A wide range of equipment is also available including computerised data logging.

This is a fascinating subject to study and will equip you with analytical and problem-solving skills as well as a deeper understanding of this vital science. Physics is an essential requirement for a number of careers and in the past, our students have entered a broad range of areas including engineering, medicine, architecture, computer science as well as physics.

A Level Physics combines well with A Level Biology, Chemistry, Maths, Computer Science and our brand new A+ Certificate in Engineering (equivalent to one A Level). We strongly recommend that Physics is studied alongside at least one other STEM subject.

During the first two weeks of the course you will work through an induction period which will culminate in an Initial Assessment that will be used to assess your suitability for the remainder of the course. Throughout the course you will be expected to study independently and you will have access to the materials in the Learning Resources Centre (LRC) as well as a comprehensive question bank and other support materials which are available on the College Intranet. You can expect to complete one homework per week and you will receive feedback on your performance within a week of the deadline date.

Entry Requirements:

You will need a minimum of five GCSEs at grade 5 or above including maths and English Language, in subjects relevant to your A Level or A+ Programme subject choices. You should also have a GCSE grade 6 or above in Physics or grade 6-6 in Combined Science and grade 6 in Maths. An average GCSE point score of 6.0 is also needed.

Assessment Information:

100%
pass rate

61%
achieved A*-B in
2023

Assessment is comprised of three examinations at the end of two years of study. There is no coursework element. Examination sessions are held in June. You will also take internal assessments periodically that the Physics Department will use to monitor your progress and determine your current working grade. Data from these assessments will be analysed to identify students who require extra support.

Paper 1:

(2 hour written exam)

- Measurements and their errors
- Particles and radiation
- Waves
- Mechanics and Materials
- Electricity
- Periodic Motion

Paper 2:

(2 hour written exam)

- Thermal Physics
- Fields
- Nuclear Physics

Paper 3:

(2 hour written exam)

- Practical Skills and data analysis
- Optional Topic

Fees and Financial Support:

This course is free for anyone aged 16 – 18.

College Maintenance Allowance (CMA):

Anyone with a household income under £26,000 can receive up to £20 per week financial support to help pay for travel and meals and meet the costs of essential trips, books, stationery and equipment. The payments will be subject to full attendance on your course. A range of other financial support is available, depending on your personal circumstances. [For more details visit nscg.ac.uk/finance](http://nscg.ac.uk/finance)

Progression:

A Level Physics is accepted as an entry qualification for higher education and is an excellent basis for careers in science, engineering, medicine, electronics, finance, computing and architecture. On a personal level, Physics allows you to view the world with increased fascination arising from your deeper understanding of how things work.

What else do I need to know?

Think of what you're capable of. Then think beyond it.

Step up to a top university or move into a competitive programme like Medicine or Law with our Honours Programme. Perfect for ambitious and high-achieving students.

The Honours Programme is an additional pathway for students whose aspirations are to progress onto highly competitive courses at top universities, such as those in the Russell Group. Once accepted onto the programme, you'll be expected to commit extra time every week to this intensive support pathway.

Find out more [here](#)

How do I find out more?

If you wish to find out more you can contact Martin Gallacher, Subject Leader, by emailing: martin.gallacher@nscg.ac.uk