

A Level Computer Science

Ofsted Outstanding Provider

Course Level: Level 3

Campus: Newcastle

Subject Type: Computing, Technology & Esports

Course Overview:

Immerse yourself in the world of technology and innovation with our A Level Computer Science course. Designed to provide a comprehensive understanding of computer systems and programming languages, students gain a deep understanding of how computers work and how to harness their power to solve real-world problems.

Whether aspiring to become software engineers, data analysts, or cyber-security experts, graduates of this course are prepared to excel in a variety of tech-related careers.

What's Covered:

If you're interested in learning about the fundamental principles and concepts behind computer science and software engineering, then this course is for you. The course will provide an understanding of, and the ability to apply, the fundamental principle and concepts of computer science, including abstraction, decomposition, logic, algorithms and data representation.

You will develop the ability to analyse problems in computational terms through practical experience of solving such problems and will write programs to do so. The capacity for thinking creatively, innovatively, analytically, logically and critically is essential to success on this course, as is the capacity to see relationships between different aspects of computer science.

You will be encouraged to articulate the individual, moral, social and ethical risks of digital technology as well as assessing the legal and cultural opportunities posed.

Mathematical skills you will develop:

- Boolean algebra
- Comparison of complexity of algorithms
- Number representations and bases

How will I learn?

The course includes a wide variety of learning experiences such as lectures, one to one tutorials, ICT based tasks, practical work, group work, discussions/debates, DVDs and personal research when preparing for assessment and lots of practical programming skills.

A Level Computer Science combines well with courses such as Business, Maths, Further Maths, Physics and our brand new A+ Certificate in Engineering (equivalent to one A Level).

Entry Requirements:

A minimum of five GCSEs at grade 5 or above including English Language, in subjects relevant to your A Level or A+ Programme subject choices. In addition you will need a GCSE grade 6 or above in maths and/or computing.

Assessment Information:

Assessment is comprised of three components:

100%

pass rate

59.1%

achieved A* - B in 2026

- **Component 1:**
  Programming and System Development - Written Examination: 2 hours 45 minutes worth 40% of qualification.
- **Component 2:**
  Computer Architecture, Data, Communication and Applications - Written Examination: 2 hours 45 minutes worth 40% of qualification.
- **Component 3:**
  Programmed Solution to a Problem - Non-exam assessment - 20% of qualification.

Fees and Financial Support:

This course is free for anyone aged 16 – 18.

College Maintenance Allowance (CMA):

Anyone with a gross household income under £35,000 can receive financial support to cover college related costs such as transport, meals, course equipment and uniform. Bursary support is based on individual circumstances and will be allocated to best suit your individual needs. A range of other financial support is available depending on your personal circumstances. For more details visit nscg.ac.uk/finance

Progression:

There are a wide range of undergraduate degrees available in computing both locally and further afield. Both Staffordshire and Keele University offer computing options which can be combined with many other subjects. Employers are interested in both the technical and the non-technical skills gained during your computer science/IT degree.

See where these multiple skills can lead you: Games developer, Information systems manager, IT consultant, System Analyst, Systems Developer, Database Administrator, Multimedia Programmer, Business Analyst, Hardware Engineer , Software Engineer, Network Engineer, Researcher

Jobs where your degree would be useful include: IT Sales, Research, Finance , Technical Author, IT Trainer, Secondary School Teacher, Geographical Information Systems Officer

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 Boo Zandu, Course Leader, by emailing: boo.zandu@nscg.ac.uk.