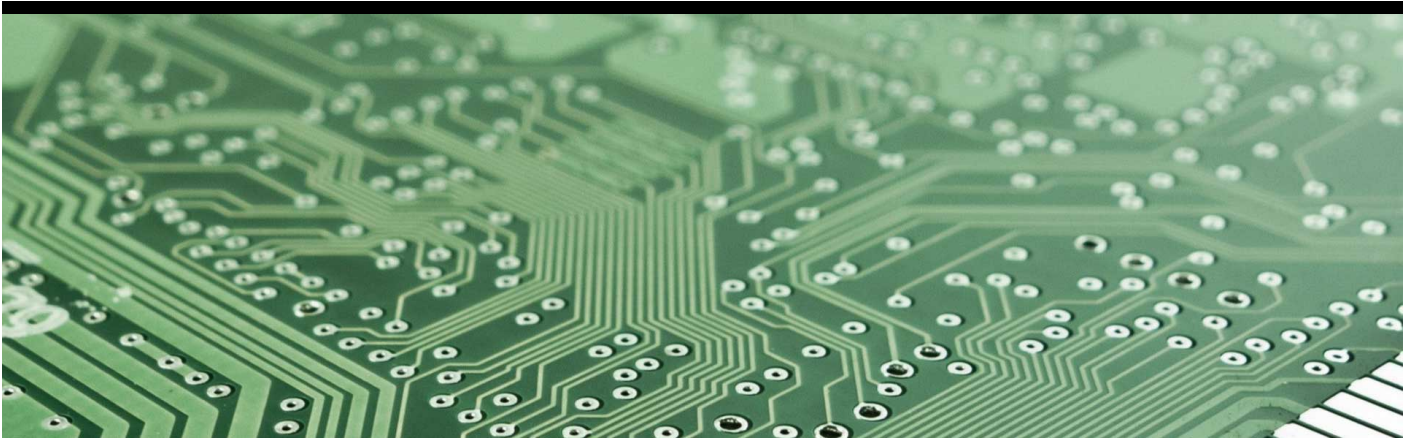




**Northumbria
University**
NEWCASTLE

Newcastle
London
Amsterdam



Advanced Computer Science MSc

Postgraduate | 16 months Full Time | Full Time

Computer and Information Sciences | City Campus, Northumbria University

Newcastle | Start September 2026 or January 2027

Advanced Computer Science MSc

About this course

Please note: This course is closed for January 2026 entry.

Designed to meet the needs of industry, MSc Advanced Computer Science will help you to build on your computing experience and develop cutting-edge IT skills.

You will develop an in-depth understanding of the topics that are defining the industry today and will gain advanced technical skills in areas such as advanced programming, database systems, big data and cloud computing, machine learning, human computer interaction, wireless networks and security. You will be taught in Northumbria's brand new purpose-built computing facility on our Newcastle City Centre campus with access to industry standard equipment and technology.

Accredited by BCS, the Chartered Institute for IT for the purposes of partially meeting the further learning academic requirement for registration as a Chartered IT Professional.

Accredited by BCS, the Chartered Institute for IT on behalf of the Engineering Council for the purposes of partially meeting the academic requirement for registration as a Chartered Engineer.

Are you interested in pursuing an IT career, but don't have an undergraduate degree in a computing-related subject? MSc Computer Science is the course you'll need to help you change direction. If you're looking for an advanced course then be sure to check out our Advanced Computer Science with Advanced Practice MSc.

Why Study Computing and Information Technology at Northumbria?

- **Research Powerhouse:** Computer Science and Informatics at Northumbria is ranked 12th in the UK for research power (REF 2021).

Modules & Learning

You will cover topics such as advanced programming, database systems, big data and cloud computing, machine learning, human computer interaction, wireless networks and security over two semesters of teaching.

On completion of both semesters you will undertake a substantial piece of research and software development related to these modules or an area that particularly interests you.

Each module of the course is individually assessed and assignments can take the form of research reports system analysis documentation, programming exercise, group and project work, exams and presentations.

Teaching Staff

You will be taught by a range of academic staff who

bring a wealth of professional experience. They are experts in specialist areas such as Strategic Management, Computer Science and Web Based Information Retrieval.

In a dynamic learning environment with an expert team of staff, you will be taught theoretical and practical research skills such as information literacy, as well as problem solving skills, self-directed learning and communication skills. You'll be taught by tutors who have many years' experience in the computing. Their experience, combined with their on-going active research, will provide an excellent foundation for your learning. Northumbria has excellent links to industry including companies, such as Accenture, Hewlett Packard and Sage.

Facilities

You will learn in Northumbria's brand new cutting edge computing facility which is equipped with industry standard technology.

You will have access to dedicated computing areas, which can be used during free periods and into the evenings and weekends.

Research-rich Learning

Throughout the duration of your course you will be immersed in a research-rich environment, with new and exciting insights into the discipline from our rapidly expanding computer science research groups.

With access to diverse research work carried out by our expert academic staff, we seek to promote innovative and excellent learning and teaching practice, which will improve your student experience here at Northumbria University.

You will develop an understanding of important research methods and approaches that could be directly relatable to the demands of your future career.

Your Future

This course will further enhance your already established skills in computer science, providing you with an advanced qualification that will be highly regarded by employers.

Graduates will be equipped with the latest skills to excel in a variety of careers in the IT industry, such as software engineering, network design and management, artificial intelligence or IT consultancy.

Advanced Computer Science MSc

Who would this course suit?

Would you like to advance your knowledge in computer science to a higher level? Do you hold a computing degree or have extensive industry experience? This Masters course could be for you.

overall IELTS (Academic) score of 6.5 with 5.5 in each component (or approved equivalent*).

*The university accepts a large number of UK and International Qualifications in place of IELTS. You can find details of acceptable tests and the required grades you will need in our English Language section. Visit www.northumbria.ac.uk/englishqualifications

Entry Requirements 2025/26

Standard Entry

Applicants should normally have:

A minimum of a 2:2 honours degree in a computing-related discipline which included programming in an object-oriented language, system analysis and design, databases, computer operating systems and networks. Other subject qualifications, equivalent professional qualifications and/or relevant work experience will be considered on an individual basis.

International qualifications:

If you have studied a non UK qualification, you can see how your qualifications compare to the standard entry criteria, by selecting the country that you received the qualification in, from our country pages. Visit www.northumbria.ac.uk/yourcountry

English language requirements:

International applicants are required to have a minimum overall IELTS (Academic) score of 6.5 with 5.5 in each component (or approved equivalent*).

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English language requirements:

International applicants are required to have a minimum

Advanced Computer Science MSc

Module Overview

Year 1	
KF7014	Advanced Programming
KF7028	Research Methods and Project Management
KF7032	Big Data and Cloud Computing
KL7011	Advanced Databases
KF7031	Wireless Networks and Security
KV7002	Human-Computer Interaction for Social Change
KV7006	Machine Learning
KV7001	Academic Language Skills for Computer and Information Sciences
Year 2	
KF7029	MSc Computer Science & Digital Technologies Project

Finance

Tuition Fees (UK students)

2026 entry: Full Fee £11,250

2025 entry: Full Fee £11,000

You should expect to pay tuition fees for every year of study. The University may increase fees in subsequent years in line with any changes to the tuition fee cap. Increases will be linked to inflation or any other uplift. (Refer to offer letter for further details)

Tuition Fees (International students)

2026 entry: Full Fee £21,500

2025 entry: Full Fee £20,950

You should expect to pay tuition fees for every year of study. The University may increase fees in subsequent years in line with any changes to the tuition fee cap. Increases will be linked to inflation or any other uplift. (Refer to offer letter for further details)

Additional Costs (All Students)

2026 entry: TBC

2025 entry: There are no Additional Costs

Financial Support

Northumbria University is committed to supporting our students. We offer scholarship packages for students depending on their abilities.

You can find out more information on our individual packages at www.northumbria.ac.uk/study-at-northumbria/fees-funding/pg-fees-funding

Financial support opportunities have associated eligibility conditions, therefore it is essential applicants consider all requirements and observe the application process and deadlines.

Other Additional Costs

Accommodation Costs

Many students find that staying in University accommodation enhances their student experience, and Northumbria has a fantastic selection available for you. Visit our [accommodation pages](#) to investigate your options for living and studying in Newcastle. All costs incurred are optional and students should select the most appropriate accommodation for their needs.

Information on DBS checks

The Government have changed guidelines on ID verification required as part of Disclosure & Barring Service (DBS) checks.

The University's DBS provider, Atlantic Data, are on the register of digital identity services and the university has received the System Change Quotation. This will incur a £5 (ex. VAT) cost to the applicant.

For further information, please see [GOV.UK ID Checking Guidance](#)

Accessibility Support

The Student Accessibility Team can provide support for physical conditions including sensory impairments, Specific Learning Differences (SpLD), ADHD, autism spectrum conditions, or long-term mental health conditions. To register for support, we require supporting documents from external bodies such as GPs or other medical practitioners. These external bodies may charge for providing this information. Please see our [webpages](#) for more information on our support.

If a student applies for Disabled Students' Allowance (DSA) and is allocated specialist equipment, the student may be required to make a contribution of £200 towards the equipment cost.

Healthcare Costs

Students, depending on their circumstances, may incur some charges for accessing healthcare or medication from the National Health Service. These include charges for prescriptions, charges for dental checks and treatment,

Advanced Computer Science MSc

and charges for other services, such as providing vaccinations or for certain types of medical evidence (for example, evidence to support a Personal Extenuating Circumstances/PEC claim at the University, if required). These charges are set and charged by NHS services, rather than by the University, and will be subject to change.

International students from particular countries may be required to pay to have a Tuberculosis (TB) test.

We also strongly recommend that all EU and international students take out their own insurance policy to cover costs which are not met by the National Health Service. It is your responsibility to ensure you pay for adequate insurance cover for the duration of your stay in the UK.

For more information about healthcare-related charges in the UK, please visit the [UKCISA](#) webpage.

Immigration Health Surcharge

The **Immigration Health Surcharge (IHS)** is a fee international students need to pay as part of their visa application.

The National Health Service (NHS) is a UK healthcare system paid for through taxes. As an international student, paying the IHS allows you to use the NHS in the same way as UK nationals and residents. Whether you need to pay depends on the immigration status you're applying for.

You usually need to pay the healthcare surcharge if you're applying for a visa or immigration application:

- for more than 6 months, if you're applying outside the UK
- for any length of time, if you're applying inside the UK

You do not need to pay if you're applying for a visitor visa or to remain in the UK permanently.

- More information on [Who Needs to Pay](#)
- Calculate your [Immigration Health Surcharge](#)
- More information on [How to Pay](#)

Congregation Costs

When you graduate you will be invited to attend your graduation ceremony. Free tickets will be provided to the Graduate and two guests. Congregation ceremonies also have associated costs. To take part you will be required to hire a graduation gown and cap*. You may also wish to purchase a professional photograph or additional guest tickets. To give you an approximation of costs, for students graduating in 2025/26, the price of an additional guest ticket was £15.00. Please note, these are subject to availability. Please also be aware that the associated costs of graduation ceremonies are subject to review each year. **Gown hire and photography are purchased from external providers, therefore the University cannot demonstrate prices.*

Library Costs

Your University Library provides a postal service for books

and journal articles which can be sent world-wide to Northumbria students who are studying part-time or by distance learning. Students who are on placement for more than six weeks are eligible to use the service whilst on placement.

There is no charge for posting books out, but you will be required to pay the cost of any return postage. We recommend that items are returned by recorded delivery. You can of course, return books in person to the University Library.

We no longer charge daily overdue fines for Library items but if a book is overdue by 30 days, we class it as lost. In such cases, a replacement charge of £25 will be added to your account. **If you have replacement charges for an overdue book, these charges will be automatically removed from your account when the book is returned, even if it is returned late.** Once returned, you'll be free to continue borrowing as usual. See our [borrowing guide](#) for further information.

Books that are actually lost or damaged beyond repair will be charged at a standard cost of £25. Alternatively you may choose to provide a replacement copy in discussion with the Library. [Click here](#) for further information about lost or damaged items. Where books borrowed from other libraries are lost or damaged we are obliged to adhere to the replacement policies of the lending institution.

If you lose your University smart card there is a replacement charge of £5 to obtain a new one. This cost is waived if your smart card has been stolen and you can provide a police crime reference number.

Placement Costs

Placements in industry are a core element of many of Northumbria's courses. Whilst many of these placements are optional, some are mandatory. They offer you a great opportunity to gain hands-on experience, giving you a distinct edge in the job market. To undertake a placement, you will need to budget for any accommodation and travel charges.

Printing & Photocopying Costs

Each year students get £10 print credit, this is the equivalent of 1,000 A4 black and white prints. This balance is topped up each year with the £10 and will roll-over to the next year (Northumbria does not reset this to zero).

- One A4 black and white: 1p
- One A3 black and white: 2p
- One A4 colour: 5p
- One A3 colour: 5p

Print credits will be debited from your account when you select and print out your document. Further information can be found on the Student Portal.

Note: These prices are per page, so double-sided will be double the price e.g. 2 sided B&W on A4 = 2p

Visa Costs

International students will be required to pay visa application fees, and associated fees as required - such as the Immigration Healthcare Surcharge, Tuberculosis tests, fees to renew or extend a visa, and fees associated with appealing a visa/immigration decision. These fees are set and charged by the UK government, rather than by the University, and are subject to change. More information about these fees can be found on the [UK Government's website](#), and information about applying for a visa to study at Northumbria can be found on our [here](#).