Course Summary: March 29, 2026

Chemistry with Medicinal Chemistry BSc Honours

- UCAS code: **F151**
- Full time
- 3 years

Our professionally accredited BSc degree focuses on the key aspects of chemistry that are most relevant and sought after by the pharmaceutical industry.

You are currently viewing course information for entry year: **2026**

Next start date:

- September 2026

Tuition fees (Year 1)

- Home: **£9,790**
- International: **£31,500**

Entry requirements and offers

- A-Level: **ABB**
- IB: **32 points**

UCAS Institution name and code:

- NEWC / N21

Undergraduate Open Day

Start your university journey. Find where you belong. Friday, June 26 (9:00-16:00) Saturday, June 27 (9:00-16:00)

Book your place now

Course overview

Medicinal chemistry is the discovery, design and synthesis of new clinical drugs and medicines.

This exciting degree allows you to broaden your interests as you discover the subject. It includes the option to spend a year studying abroad or working in industry.

You'll explore the role of chemistry in:

- drug design
- cancer chemotherapy
- enzymology
- toxicology

You'll study medicinal, organic, inorganic and structural chemistry. You'll investigate modern analytical techniques and computational chemistry.

Your course and study experience - disclaimers and terms and conditions
Please rest assured we make all reasonable efforts to provide you with the programmes, services and facilities described. However, it may be necessary to make changes due to significant disruption, for example in response to Covid-19.

View our Academic experience page, which gives information about your Newcastle University study experience for the academic year 2025-26.

See our terms and conditions and student complaints information, which gives details of circumstances that may lead to changes to programmes, modules or University services.

Additional information

Flexible degree structure

Our Chemistry degrees share a common first year before offering different pathways and opportunities to specialise. Explore what you enjoy and then branch out.

Quality and ranking

Professional accreditation and recognition

All professional accreditations are reviewed regularly by their professional body.

Modules and learning

Modules

The information below is intended to provide an example of what you will study.

Most degrees are divided into stages. Each stage lasts for one academic year, and you'll complete modules totalling 120 credits by the end of each stage.

Our teaching is informed by research. Course content may change periodically to reflect developments in the discipline, the requirements of external bodies and partners, and student feedback.

Optional module availability
Student demand for optional modules may affect availability.

Full details of the modules on offer will be published through the Programme Regulations and Specifications ahead of each academic year. This usually happens in May.

To find out more please see our terms and conditions

Our chemistry degrees share a common first year which explores the fundamentals of organic, inorganic, physical and biological chemistry.

Modules

Compulsory Modules	Credits
Chemical Laboratory Skills 1	20
Chemical Skills and Professionalism	10
Fundamentals of Organic Chemistry	20
Fundamentals of Inorganic Chemistry	20
Fundamentals of Physical Chemistry	20
General Chemistry	10

Fundamentals of Biological Chemistry	10

Additional compulsory module information

If you have A Level Maths grade C or below you take the following compulsory module:
Mathematical Skills for Science (10 credits)

Optional Modules	Credits
Mathematical Skills for Science	10
Introduction to Scientific Computing for Chemists	10
Introductory Astrophysics	10

You'll explore concepts in medicinal chemistry including pharmacokinetics, pharmacodynamics, enzymes and drug design. You'll be introduced to structure-based drug design using CCP4 Molecular Graphics software.

You'll take an employability module that includes a Professional Awareness Event. You'll have the opportunity to interact with a range of companies.

Modules

Compulsory Modules	Credits
Sustainable Solutions	10
Chemical Laboratory Skills 2	20
Structural Chemistry	10
Organic Chemistry	20
Inorganic Chemistry	20
Physical Chemistry	20
Medicinal Chemistry	10
Optional Modules	**Credits**

Applied Computational Medicinal Chemistry	10
Chemistry of the Atmosphere	10

You'll discover more advanced concepts in medicinal chemistry including toxicology, enzymology, cancer chemotherapy and chemotherapy of infectious diseases.

You'll study advanced organic and inorganic chemistry and explore topics including chemical nanoscience, synthesis and bioinorganic chemistry.

You'll take an employability module that includes a Professional Awareness Event. This is a great opportunity to interact with a range of companies.

Modules

Compulsory Modules	Credits
Professional Development and Employability Skills for Chemists	10
Advanced Organic Chemistry	20
Advanced Inorganic Chemistry	20
Advanced Medicinal Chemistry	20
Advanced Structural Chemistry	10
Chemical Laboratory Skills 3M	20
Analytical Chemistry in Practice	20

Teaching and assessment

Teaching methods

Teaching is by a combination of lectures, tutorials and lab-based and computational experiments. You will have practical classes for two afternoons each week in Stage 1 and these increase in later years.

Assessment methods

You'll be assessed through a combination of:

- Assessments
- Assignments – written or fieldwork
- Coursework
- Examinations – practical or online
- Group work
- Practical sessions
- Presentations
- Seminar tasks/exercises

Skills and experience

Practical skills

You'll have the opportunity to develop professional laboratory skills through practical experience in our high-spec teaching labs.

You'll also develop strong analytical and problem-solving skills. These will enable you to pursue careers outside of Chemistry, including:

- accountancy
- patent law
- marketing

Business skills

We'll help you develop your professional and business skills, so you're ready for your career. During your degree you'll learn to communicate complex ideas, manage projects and work in a team.

You'll develop your skills through:

- employability skills training across all stages
- work placements

- study abroad opportunities
- industrial visits

During our Professional Awareness Day, you'll meet and talk with our alumni and leading companies.

We'll also focus on developing your skills in:

- writing proposals
- writing scientific reports and papers
- delivering presentations

Research skills

Research is at the heart of what we do. Our latest research discoveries feed into your curriculum. You'll learn on the cutting-edge of Chemistry. Our discoveries include:

- discovery of new anti-cancer drugs
- development of battery technology
- creation of nanoscale electronics

Opportunities

Study abroad

Gain a global perspective, enhance your academic profile and open doors to exciting new experiences by studying abroad for one semester or a full academic year at one of our partner universities overseas. Study abroad usually takes place in stage 3 of your studies and extends your degree by one year.

You'll have the choice to study at a leading international university, including:

- Monash University
- University of Hong Kong
- University of Pittsburgh

You can also opt for short-term global opportunities like summer schools, virtual exchanges or internships that usually take place over the summer months.

Find out more about study abroad

Work placement

Work Placements During your degree you can apply to spend 9 to 12 months on an industrial placement, in the UK or abroad. Your work placement is a great opportunity to gain practical experience, acquire key business skills and make industry contacts. You'll get University support from our dedicated team. Work placements usually take place between Stages 2 and 3 and extend your degree by a year.

Recent chemistry industrial placements include:

- Placement student at Procter and Gamble
- R&D Analytical Chemist at Reckitt Benckiser
- Drug Substance and Product Analyst at GSK
- Placement student at AkzoNobel

Find out more about work placements

If you take an assessed year abroad or industrial placement, you'll study both the Advanced Inorganic and Advanced Organic Chemistry modules via distance learning, alongside an 80 credit project.

Facilities and environment

Facilities

The Bedson Building is the home of Chemistry and is located on our city-centre campus. It's based in the School of Natural and Environmental Sciences.

Here you will benefit from well-resourced teaching and research laboratories and facilities including:

- advanced instrumentation for analytical chemistry
- mechanical, glassblowing and electronic workshops
- facilities for the synthesis and characterization of novel materials
- extensive computational resources for molecular modelling and dynamics

We also have analytical research facilities which include:

- mass spectrometry
- nuclear magnetic resonance (NMR) spectroscopy
- ion beams
- X-ray diffraction

These resources offer you invaluable hands-on experience, preparing you for a successful career in Chemistry.

Support

We take your health and wellbeing seriously and are committed to supporting you throughout your studies so you can fulfil your potential at university. This support includes:

- a personal tutor who is an academic member of staff who can help you with academic and personal issues throughout your degree

- a peer mentor scheme which pairs you with a current student from your course to help you navigate your first year at university
- a staff-student committee, to give you an opportunity to have a say in how your degree works
- support, treatment and guidance on mental and physical health from our wellbeing team

Your future

Join a network of successful graduates

Employers hold our graduates in high regard. Our graduates go on to work in a wide variety of sectors, including:

- drug development
- pharmacologist
- data analyst
- laboratory technician

Benefit from strong industry links

You'll also benefit from our well-established links with organisations within the industry, such as:

- Astra Zeneca
- GlaxoSmithKline
- Proctor & Gamble

Sustainable solutions

The Sustainable Solutions module at Newcastle University offers you the opportunity to collaborate with industry professionals on projects that address real-world sustainability challenges. This hands-on experience enhances your problem-solving skills and prepares you for successful careers in sustainability-focused roles.

You'll have many opportunities to interact with industry through:

- guest speakers
- visits
- industry networking events
- opportunities to attend conferences

Careers support

Our Careers Service is one of the largest and best in the country, and we have strong links with employers. We provide an extensive range of opportunities to all students through our ncl+ initiative.

Visit our Careers Service website

Recognition of professional qualifications outside of the UK

If you're studying an **accredited degree** and thinking about working in Europe after you graduate, the best place to find current information is the UK Government's guidance on recognition of UK professional qualifications in EU member states. This official resource explains whether your profession is regulated in another country, what steps you need to take, and which organisation you should contact.

Find out more...

- Go online for information about our full range of degrees: **www.ncl.ac.uk/undergraduate**
- Watch videos about student life in Newcastle by visiting our YouTube channel at **www.youtube.com/@newcastleuni**
- Watch a virtual tour of our campus at **https://youtu.be/vJUfHcqB7l8?si=8IUrf7kTxXbgdfr1**
- Book for an Open Day to come and see us in person **www.ncl.ac.uk/openday**
- Contact us online at **www.ncl.ac.uk/enquiries** or phone +44 (0)191 208 3333

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