SCHOOL OF CHEMISTRY

98% STUDENT SATISFACTION (NSS 2019)

WWW.BIRMINGHAM.AC.UK/CHEMISTRY
## OUR PROGRAMMES

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We have a proud history of delivering world-renowned teaching and research stretching back over 120 years. We have produced generations of outstanding graduates and researchers who have shaped our world. Our courses are designed to integrate our exciting research in areas such as healthcare, energy and sustainability to ensure our students are inspired by important chemistry that may shape their future careers.

**WHY STUDY CHEMISTRY AT BIRMINGHAM?**

Our consistently high levels of sector-leading student satisfaction demonstrate the importance we place on providing the best student experience. This is enriched by our supportive and innovative learning environment and a key sense of community amongst all our students and staff. Our students also have access to outstanding new facilities following a record investment of over £120 million in Chemistry at Birmingham.

**ACADEMIC PROFILE**

Professor Rachel O'Reilly, Head of School

'It is a great privilege to be Head of School at such an exciting time for the School of Chemistry. We have been benefitting from high levels of investment from the University to bring in outstanding academics from all over the world, and our facilities are being transformed by our upcoming £80 million Molecular Sciences Building, the new home for Chemistry. My own research interests lie in polymers – I am inspired by natural organic macromolecules, such as carbohydrates, proteins and nucleic acids that are key to life on Earth.'

**CONTACT US**

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[www.birmingham.ac.uk/chemistry](http://www.birmingham.ac.uk/chemistry)
SCHOLARSHIPS

The School of Chemistry offers scholarships and prizes which seek to promote and reward academic excellence.

- **School scholarships**
  Birmingham Chemistry offers a large number of entry scholarships to Home/EU students, up to a value of £5,000. To be eligible, students must place Birmingham as their firm choice before their UCAS deadline. For the latest details, including eligibility criteria, please visit our scholarships website: www.birmingham.ac.uk/chem-scholarships

- **School prizes**
  The School is committed to recognising sustained academic excellence and is proud to offer a range of named prizes to reward outstanding performance. These prizes are awarded to successful students at the end of each academic year.

- **University scholarships**
  The University offers a range of scholarships including Music and Sports Scholarships for students who excel in these areas. www.birmingham.ac.uk/students/fees/undergraduate/index.aspx

- **'Pathways to Birmingham' Scholarship and Bursary**
  As part of the University’s commitment to ensuring students from all backgrounds can access higher education, scholarships and bursaries are available to students who have successfully completed a 'Pathways to Birmingham' programme and met the additional criteria. www.birmingham.ac.uk/undergraduate/funding/access-to-birmingham-scholarship.aspx

ENTRY REQUIREMENTS

The grades you need to achieve to gain a place on one of our degree programmes can be found on our website. We accept A levels as well as a range of other qualifications such as BTECs, the International Baccalaureate Diploma and other equivalent qualifications.

**Typical offer:** AAA–AAB (MSci), AAB–ABB (BSc)

**Required subjects:** A level Chemistry

**Minimum Mathematics requirement:** GCSE grade 6/B. You must also pass the practical element of any reformed science A levels which include Biology, Chemistry and Physics taught from 2015.

General Studies, Critical Thinking and Use of Maths are not accepted.

Visit www.birmingham.ac.uk/chemistry for details
Chemists at Birmingham adopt a broad, multidisciplinary approach to the subject. This is going to be vital if we are to solve the problems of the 21st century in healthcare, medicine, sustainability and the environment.

All our degrees (including our popular F101 MSci and F100 BSc programmes) provide you with a thorough grounding in all the aspects of modern chemistry as well as an opportunity to learn about the latest developments in cutting-edge research.

Our F104 Chemistry with Industrial Experience programme enables you to spend the third year of your degree in paid employment in an industrial setting. Students who go on a ‘year out’ gain valuable work experience whilst improving their career prospects.

Choosing our F106 Chemistry with Study Abroad programme will give you the chance to spend your third year studying abroad at one of our partner institutions in a number of countries including: Australia, New Zealand, Canada, USA, France, Germany, Italy, Spain, Sweden and Singapore.

If you would like to study chemistry whilst developing your language skills, then our F1RY/F1R9 Chemistry with a Modern Language programme could be the right choice for you. Current languages available are: German, French, Spanish, Mandarin and Japanese.

If you are looking to study Chemistry whilst also exploring a second discipline, then our Major/Minor F1N2/F1N1 Chemistry with Business Management programme (two-thirds Chemistry, one-third Business Management) may be for you. Gaining a solid grounding of modern chemistry, you will then apply the analytical tools developed in a science degree to understand how business, finance and the economy work.

Our F103 Chemistry with Foundation Year programme is open to UK/EU students, but if you are an international student, the Birmingham International Academy also offers a Foundation Year (Engineering and Physical Sciences Pathway). Please see our website for more details.

JESS
MSci Chemistry with Industrial Experience

‘I spent my Industrial Year working at Roche in Switzerland. The day-to-day work in the lab was very similar to undergraduate organic labs, but I had more autonomy, and together with my supervisor I planned the chemistry I carried out, responding to the results from the testing of the small drug molecules we submitted. This fast-paced environment allowed me to develop my practical skills immensely and the experience has shaped my approach to my fourth-year Masters research project.’

FIND OUT MORE ABOUT THE SCHOOL OF CHEMISTRY AT BIRMINGHAM NOW: WWW.BIRMINGHAM.AC.UK/CHEMISTRY
OUR TEACHING LABORATORY

Our outstanding new £40 million Collaborative Teaching Laboratory (CTL) represents a significant investment by the University of Birmingham in the School of Chemistry. It has been designed to provide our undergraduate students with access to the very latest equipment and technologies and has enhanced our ability to deliver an exciting and engaging practical chemistry course.

Technology-enhanced Learning
A state-of-the-art audio-visual system allows lecturers to interact in real-time with students on an individual basis to provide guidance, advice and feedback. Technology is also on-hand to assist students in preparing for their lab work through short theory and technique videos and interactive quizzes. The majority of the first- and second-year assessment is undertaken online using tools that provide instantaneous feedback enabling students to link their feedback directly to their performance.

Innovative Lab Course
Since the CTL opened in 2018, we have continually striven to improve the way we use the facility to teach the key scientific and transferrable skills a chemistry graduate needs before embarking on their career. The first two years of teaching build a foundation, focusing on laboratory techniques after which the final years focus on the development of project skills.

In your first year, you will benefit greatly from a non-assessed first semester which allows you to gain confidence and competence in the lab. In the second year of lab work, you begin to explore advanced techniques linked to research being carried out in the School of Chemistry. In your third year, you will undertake week-long mini-projects using the knowledge and skills you learn to embark on new areas of research, finding your own solutions and developing your own approaches to lab work.
SECTOR-LEADING INSTRUMENTATION

£2.5 million of state-of-the-art equipment has been dedicated to the practical element of teaching chemistry, making the Collaborative Teaching Laboratory better equipped than the majority of research environments in both academia and industry. The lab course has been carefully adapted to incorporate this new instrumentation to provide students with fast and effective feedback on the success of their experiments.

MOLECULAR SCIENCES BUILDING: COMING SOON

Construction work on the £80 million new home for the School of Chemistry will start soon. This exciting flagship facility will be purpose-built for our world-leading research and is due to be completed in 2023. It has been designed to provide an exceptional environment for our undergraduate Chemistry students, offering flexible working spaces and state-of-the art-research laboratories to support our teaching and our groundbreaking research in areas such as Drug Discovery, Environment and Energy.
TEACHING AND WELFARE SUPPORT

Supporting students to adapt to university life and to succeed throughout their degree programmes is important to us at Birmingham. Each Chemistry student is assigned both a personal tutor as well as a tutor for each of the three areas of chemistry (Organic, Inorganic and Physical Chemistry).

Whilst personal tutors assist with the transition from school to university, subject tutors support learning by hosting small non-assessed group tutorials of no more than seven students once a week, to help cement key concepts learned in lectures and to give students the opportunity to ask questions in a relaxed and informal environment.

The School’s Welfare Officer also plays a role in helping students to thrive, offering regular drop-in sessions to chat confidentially about any welfare issues including homesickness, problems or personal difficulties that students may encounter during their studies and acts to signpost to other welfare and support services and resources to best meet any additional needs.

RIKESH

MSci Chemistry with Industrial Experience

‘Small group tutorials allow me to delve further into topics covered and ask questions in a stress-free environment without any judgement, helping me understand topics better. Each topic has a tutorial at the end of the lecture course, and answering questions and receiving feedback allows me to see if I have understood the course instead of simply remembering it, which gives me extra confidence in my own understanding of chemistry.’

BEN

MSci Chemistry with Industrial Experience

‘I feel very well supported in terms of my welfare and my studies. Each Chemistry student is assigned a personal tutor, meeting once a term to discuss their welfare and academic goals. Moving to university can be a daunting process but having a personal tutor who is contactable throughout the year to give guidance has been absolutely integral to my university experience.’
OUTSIDE YOUR DEGREE

As a Chemistry student at the University of Birmingham, you will have many exciting opportunities to enrich and enjoy your time outside your studies.

We have a vibrant chemistry society, known as ‘ChemSoc’, run by Chemistry students for our Chemistry students. The society organises many social activities, charity events, guest lectures, industrial trips as well as the School’s Annual Chemistry Ball. This year it is chaired by Tamsin Durrant (MSci Chemistry).

Beyond ChemSoc, there are many opportunities within the University to broaden your experiences, develop new skills and meet new people. Our Guild of Students offers over 300 clubs and societies. Whether you’re interested in getting involved in activities and games, campaigning, volunteering, food and drink, religious groups, music, performance or media, there is something that will appeal to you – and if there isn’t then the Guild will give you the help you need to set up a group that matters to you.

If you enjoy playing sport either recreationally or competitively, you will find our sporting facilities are amongst the best in the UK.

Music is also a distinctive part of life at the University of Birmingham. You can join any of our two symphony orchestras, a number of choirs, a jazz orchestra, the symphonic wind band and a brass ensemble. Music-lovers can also attend regular concerts at our 450-seat Bramall concert hall.

TAMMY

MSci Chemistry, ChemSoc President

‘ChemSoc is a really important part of our community here in the School of Chemistry. I’ve loved being involved in its events, and I’m excited about making sure it goes from strength to strength!’
Researchers in the School of Chemistry are at the front-line of key discoveries in healthcare, new materials and sustainability with the potential for global impact. Leading the sustainability field, our academics are working on finding alternatives to plastics, recycling elements in short supply and converting CO₂ emissions into sustainable liquid fuels. Projects into healthcare research are currently focused on new drug discovery and improving diagnostic tools to tackle disease. Not only does this research shape what is taught to undergraduate Chemistry students who directly benefit from discoveries and concepts as they are developed; our students also play a key part, contributing to the work and coming away with real-world practical experience in topical research areas.

'SAREENA
MSci Chemistry with Industrial Experience graduate and PhD student in Chemistry

'During the final year of my MSci I undertook a research project with Professor Jon Preece’s Group, where I enjoyed the challenge of synthesising a new class of fluorescent compounds. Practising the chemistry learnt in lectures and developing my research skills helped build my confidence as a scientist. After working within such a supportive research group on the project I decided to apply for a PhD. So far in my first year, I have been able to explore the applications for my materials, and really appreciate how interdisciplinary Chemistry can be, working collaboratively with scientists in immunology and using different microscopy techniques.'
WHAT CAN YOU DO WITH A BIRMINGHAM CHEMISTRY DEGREE?

The employability of our students is paramount and it’s the reason why employability support and skills-training is embedded throughout all of our programmes, right from the beginning.

Birmingham Chemistry graduates are in high demand with many different industries as our degree programmes equip our students with both subject-specific skills as well as the generic skills employers see as crucial. Many graduates progress to become professional scientists; having developed strong laboratory and analytical skills, they are able to analyse problems and interpret complex data, proposing innovative solutions and designing new molecules and materials to solve challenging societal needs.

However, the problem-solving skills, written and spoken communication skills, presentation skills, teamwork and interpersonal skills developed on our programmes means our graduates are also highly sought after in marketing, law, accountancy, business, retail, public services, web design, computing and IT, publishing and investment analysis.

Our graduates have gone on to work at companies including: AstraZeneca, Unilever, GSK, P&G, BAE Systems, PWC, AkzoNobel, Mercedes F1, DSTL and AWE.

HEATHER
MSci Chemistry with Industrial Experience graduate

‘I am a chemist-come-baker at heart, so I really enjoy my job as a Product Development Technologist at Unilever, creating (and tasting!) new ice cream recipes for brands such as Cornetto and Carte D’Or. Without a doubt, my year in industry had the biggest impact on my career prospects after university as it gave me an understanding of the working world that I would not have gained otherwise, and the skills I developed were invaluable when I began applying for jobs and preparing for interviews.’

CAMERON
MSci Chemistry with Industrial Experience graduate

‘The chemistry I learned during my degree at Birmingham as well as the problem-solving, organisation and teamworking skills I gained have proved invaluable. They provided me with an excellent platform for my career and are helping me to succeed in industry. I now enjoy working at Evotec, where I undertook my placement year as a Medicinal Chemist designing, synthesising and developing potential drugs. I spend my working day making molecules by doing reactions, then making them better by looking at assay data and designing new compounds.’
This leaflet was produced in advance of the start of the academic year. It is intended to provide prospective students with a general picture of the programmes and courses offered by the School. Please note that not all programmes or all courses are offered every year. Also, because our research is constantly exploring new areas and directions of study some courses may be discontinued and new ones offered in their place. Before you apply, please visit our website to view essential information for all applicants: www.birmingham.ac.uk/applicantinformation

Please note the information in this brochure is correct at time of publication but may be subject to change (July 2020).