

Chemistry with Foundation Year

Undergraduate degree course/programme Chemistry with Foundation Year F103:

As the central science, Chemistry is responsible for many of the most important breakthroughs in science. In taking some of the world's most exciting ideas and discoveries and turning these into innovative processes and products, its potential to improve our everyday lives is enormous.

Study [Chemistry at Birmingham \(/schools/chemistry/index.aspx\)](/schools/chemistry/index.aspx) and you will join one of the UK's leading departments and have access to some of the best research facilities in the country. Throughout your time with us, you will be constantly challenged as you push forwards the boundaries of your understanding, all within a supportive learning environment.

Our **Chemistry with Foundation Year** degree programme is designed for students whose qualifications are not appropriate for direct entry on to one of our Honours degree programmes. This programme may also be attractive to mature students who may need a period of retraining before embarking on a degree.

Successful completion of the first (foundation) year of this programme allows automatic transfer into Year 1 of one of our [Honours Chemistry degree programmes \(/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx\)](/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx).

Study here and find out why the University of Birmingham was awarded The Times and The Sunday Times University of the Year 2013-14 (<http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx>)

Course fact file

UCAS code: F103

Duration: 4/5 years

Typical Offer: ABB–BBB ([More detailed entry requirements and the international qualifications accepted can be found in the course details \(? OpenSection=EntryRequirements\)](#))

Start date: September

Related courses

[Chemistry undergraduate degree courses - School of Chemistry \(/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx\)](/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx)

Contact

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Telephone enquiries: +44 (0)121 414 4361

Email: ug-chemistry-admissions@lists.bham.ac.uk (<mailto:ug-chemistry-admissions@lists.bham.ac.uk>)

[School of Chemistry \(/schools/chemistry/index.aspx\)](/schools/chemistry/index.aspx)

Details

Our Chemistry with Foundation Year is specially designed for students whose qualifications do not allow direct entry on to one of our honours chemistry degree programmes. Students enrolled on this course are fully integrated into the School of Chemistry from the outset.

The course will be attractive to:

- students whose A-level qualifications are incompatible (either in respect of grades or subjects) with the normal entrance requirements of our honours degree programmes;
- students with alternative qualifications such as **Access to Higher Education** and **BTEC diplomas**;
- **mature students** who may wish to undertake a period of retraining before embarking on one of our honours degree programmes;
- **students from EU countries** whose pre-university qualifications are not considered for direct entry on to one of our honours degree programmes.

Course Structure

The first year of this course functions as a Foundation Year, successful completion of which allows automatic transfer on to one of our three-year BSc honours programmes (e.g. [BSc \(hons\) Chemistry \(F100\) \(/undergraduate/courses/chemistry/chemistry-bsc.aspx\)](/undergraduate/courses/chemistry/chemistry-bsc.aspx)). Progression on to one of our four-year MSci programmes (e.g. [MSci \(hons\) Chemistry \(F101\) \(/undergraduate/courses/chemistry/chemistry-msci.aspx\)](/undergraduate/courses/chemistry/chemistry-msci.aspx)) is also possible depending upon performance. The length of this programme is therefore **4 years**, should you choose the BSc pathway, or **5 years** if you choose to follow an MSci (hons) programme.

Other options

- International students should see the Birmingham Foundation Academy.

Related links

- [Chemistry undergraduate degree courses \(/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx\)](/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx)
- [Frequently asked questions \(/schools/chemistry/undergraduate/faq.aspx\)](/schools/chemistry/undergraduate/faq.aspx)
- Foundation Year for Home/EU students (pdf 270 KB)

Why study this course

Our Chemistry with Foundation Year degree programme is designed for students whose qualifications are unsuitable for direct entry on to one of our Honours degree programmes. This programme may also be attractive to mature students who may need a period of retraining before embarking on a degree.

Chemists at Birmingham adopt a broad, multi-disciplinary outlook to their subject, which is vital if we are to solve the problems of the 21st Century in healthcare, medicine, sustainability and the environment. The School has a leading research rating and is committed to excellence in teaching: your lecturers are not only experts in their fields but also passionate about chemistry and committed to inspiring you!

Read more about why you should [study chemistry at Birmingham \(/schools/chemistry/undergraduate/why-chemistry-birmingham.aspx\)](/schools/chemistry/undergraduate/why-chemistry-birmingham.aspx).

Modules

Each year contains 120 credits of taught material, delivered in modules that are typically worth 10 or 20 credits.

The first (foundation) year of this programme comprises:

- 70 credits of Chemistry Core Theory (covering organic, inorganic and physical chemistry and spectroscopy)
- 10 credits of Practical Chemistry
- 10 credits of Mathematics and Data Handling
- 20 credits of Computer Science
- 10 credits on Science and Engineering Skills covering researching information, presentation skills, essay writing and IT skills.

All of the course material is delivered by staff from the University of Birmingham.

Successful completion of this foundation year provides automatic entry on to one of our three-year (BSc) or four-year (MSci) Honours Degree Courses.

After transferring on to an honours programme, core courses (60 credits in each year) are taken by all students, irrespective of the degree programme on which they are enrolled. These modules cover those fundamentals of the subject that we deem essential and include a significant practical component, which not only allows you to develop your practical skills and techniques, but also to consolidate the associated theory from your lectures.

The remaining 60 credits in each year comprise modules designed to support these core courses and include optional chemistry modules, mathematics courses, project work, laboratory modules, and courses which focus on communications skills and employability.

Detailed module descriptions are located on the [course breakdown page \(/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx\)](/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx) on the School of Chemistry website.

Fees and funding

[Standard fees \(/undergraduate/fees/fees.aspx\)](/undergraduate/fees/fees.aspx) apply. Learn more about [fees and funding](#).

[\(/undergraduate/fees/loans.aspx\)](/undergraduate/fees/loans.aspx) **Scholarships:** Learn more about our [scholarships and awards \(/undergraduate/fees/funding/index.aspx\)](/undergraduate/fees/funding/index.aspx) and those offered by the [School of Chemistry \(/schools/chemistry/undergraduate/scholarships.aspx\)](/schools/chemistry/undergraduate/scholarships.aspx)

Entry requirements

Typical offer: ABB–BBB

Required subjects and grades: Offers will depend on your previous study. Required subject - Chemistry.

General Studies: and Critical Thinking not accepted. However, a good performance may be taken into account if you fail to meet the conditions of the offer.

Other Qualifications

Access to Higher Education Diplomas in an appropriate subject:

Typical offer: 60 credits with at least 45 credits at Level 3 to include at least 15 in Chemistry at distinction, 15 in Biology / Physics / Maths at distinction and the remaining Level 3 credits at merit.

BTEC Diplomas

Typical offer: offer will depend on the nature of the diploma and accompanying qualifications (e.g. A-levels). [Contact \(mailto:ug-chemistry-admissions@contacts.bham.ac.uk\)](mailto:ug-chemistry-admissions@contacts.bham.ac.uk) a member of the Admissions Team for more information.

Additional information:

Other qualifications are considered – learn more about [entry requirements \(http://www.birmingham.ac.uk/students/ug/requirements\)](http://www.birmingham.ac.uk/students/ug/requirements) or [contact \(mailto:ug-chemistry-admissions@contacts.bham.ac.uk\)](mailto:ug-chemistry-admissions@contacts.bham.ac.uk) a member of the Admissions Team for more information.

International students:

International students (non-EU) should see the Birmingham Foundation Academy, specific course details are located on the Engineering and Physical Sciences Pathway.

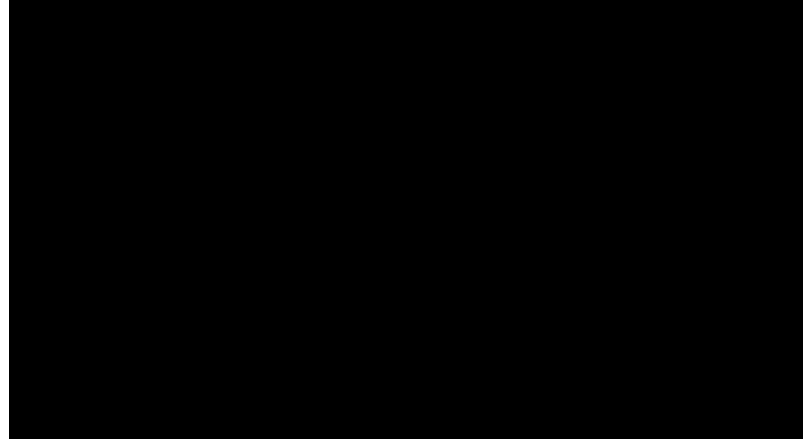
Depending on your chosen course of study, you may also be interested in the Birmingham Foundation Academy, a specially structured programme for international students whose qualifications are not accepted for direct entry to UK universities. Further details can be found on the [foundation academy web pages \(http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx\)](http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx).

How to apply

Apply through UCAS at [www.ucas.com \(http://www.ucas.com\)](http://www.ucas.com)

Learn more about [applying \(http://www.birmingham.ac.uk/students/ug/courses/apply\)](http://www.birmingham.ac.uk/students/ug/courses/apply)

Learning and teaching



Personal Tutor: At the start of your degree, you will be assigned a Personal Tutor who remains with you throughout your studies. You will meet him or her at least once a semester to review your academic progress and to discuss how to develop your transferable skills. Your personal tutor will also be able to advise on particular areas where you may need additional support. During your first year you will also undergo a formal **transition review** with your personal tutor to see how you are progressing and whether there are particular areas where you need support.

Delivery of the course

As a Birmingham student you are part of an academic elite and will learn from world-leading experts. From the outset you will be encouraged to become an independent and self-motivated learner; we want you to be challenged and will encourage you to think for yourself.

Your learning will take place in a range of different settings, including **lectures, workshops and small-group tutorials, self-study** and **peer-group learning sessions** and **laboratory and project work**.

You may find these new ways of studying challenging at first; however, rest assured, we will work with you to facilitate this transition. You will have access to a comprehensive academic and pastoral support system, which includes your personal tutor and welfare tutors.

The course is delivered as lectures, tutorials, workshops and laboratory classes. In your final year, you will also complete a research-related project. In the first year, you can expect about 20 hours of contact time per week made up of approximately 12 hours of lectures, tutorials and workshops, and up to eight hours of laboratory classes.

Small-group tutorials run alongside our lecture courses and provide a valuable opportunity for you to discuss specific problems with your tutor, as well as consolidate and test your understanding of the lecture material through problem-solving exercises.

Enquiry-Based Learning (EBL) provides an environment where the learning process is driven by enquiry. In this learning approach, the lecturer acts solely as a facilitator. EBL is a particularly useful method for teaching aspects of chemistry, for example, the use of spectroscopic techniques in structure elucidation. It often requires you to work in a team to solve a problem and exemplifies the research-oriented approach to problem-solving, which lies at the heart of the research-led ethos of the University.

Laboratory-based practical work forms an integral part of the School's degree programmes. These classes not only develop your practical skills but also reinforce concepts introduced in the associated lectures. Practical sessions typically last four hours in your first year; however, these increase in length in subsequent years to allow for more advanced experiments.

In your final year, if you are on an MSci programme, you will undertake a major **research project**. You will join a research group and become a member of the Research School. Your project will enable you to focus on the area of Chemistry that interests you most and to carry out science that has never been done before. Projects can be synthesis-based or concentrate on more theoretical aspects of the subject or involve a combination of both; you will work closely with your project supervisor to tailor the project to your particular research interests.

If you are a BSc student, you will also complete a research-related project in your final year, which can involve practical-based research, computer-based research or a literature dissertation. If you are interested in entering the teaching profession, you may opt instead for a project in the area of chemical education.

Assessment methods

Each module is assessed independently. Most contain a component of **continuous assessment**, which usually contributes a quarter to one-third of the module mark. Methods of assessment are tailored to best assess the **learning outcomes** of the module and can include end-of-year **examinations**, written **assignments**, **oral and poster presentations**, **computer-based tests** and/or **laboratory and project reports**. Some modules are assessed completely by coursework. Examinations are taken in May and June.

We provide prompt and informative **feedback** on all pieces of submitted work. Feedback comes in a variety of forms, including written comments on pieces of assessment, whole-class feedback sessions and one-on-one discussions with your tutors. In all cases, the feedback will highlight the good points as well as those areas that require more attention.

At the beginning of the year, you will be given information on how and when you will be assessed. You will receive feedback on each assessment within four weeks (and often much sooner) so that you can learn from, and build on, what you have done. You will also be given feedback on any exams that you take.

Employability

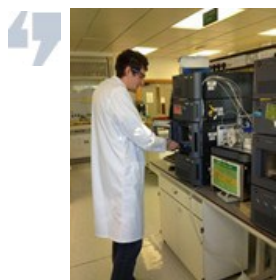
The information below relates to our BSc/MSci courses:

As a Birmingham Chemistry graduate you will possess excellent **core skills** in numeracy, IT and literacy, as well as highly-developed problem-solving, team-working, and communication skills, all of which are deemed crucial by employers. Combining these **transferable skills** with an **in-depth knowledge of Chemistry**, both theory

and practice, you will enter the workplace ready to interpret complex data, to propose innovative solutions to challenging problems, and to design new molecules and materials to solve societal needs.

You might decide to pursue a career in one of the chemical, pharmaceutical or manufacturing industries; alternatively, you could choose to work in other areas of science and technology, such as environmental protection, analytical chemistry or forensics. Other areas that need the problem-solving skills you will have developed include finance, law and marketing, as well as teaching and research.

Birmingham Chemistry has strong research links with many chemical companies, which we can exploit to help you to gain industrial experience whilst studying. Whilst you may choose to undertake a Summer placement as part of your degree, our **Chemistry with Industrial Experience MSci programme** (<http://www.birmingham.ac.uk/students/courses/undergraduate/chemistry/chemistry-industrial.aspx>) is a more popular degree choice should you wish to gain experience of working during your degree. On this programme, you spend your third year in paid employment. Working and studying in an industrial setting provides you with valuable experience, whilst at the same time improving your career prospects.



Matt Gray
MSci Chemistry with Industrial Experience
Placement: AstraZeneca

A placement is not as intimidating as it first appears and if you enjoy practical work, then I can't think of a better degree to choose.

Career destinations of previous graduates include:

- AstraZeneca
- GlaxoSmithKline
- BASF
- Procter and Gamble
- Reckitt Benckiser
- Severn Trent Water
- Forensic Science Service
- BAE Systems

University Careers Network

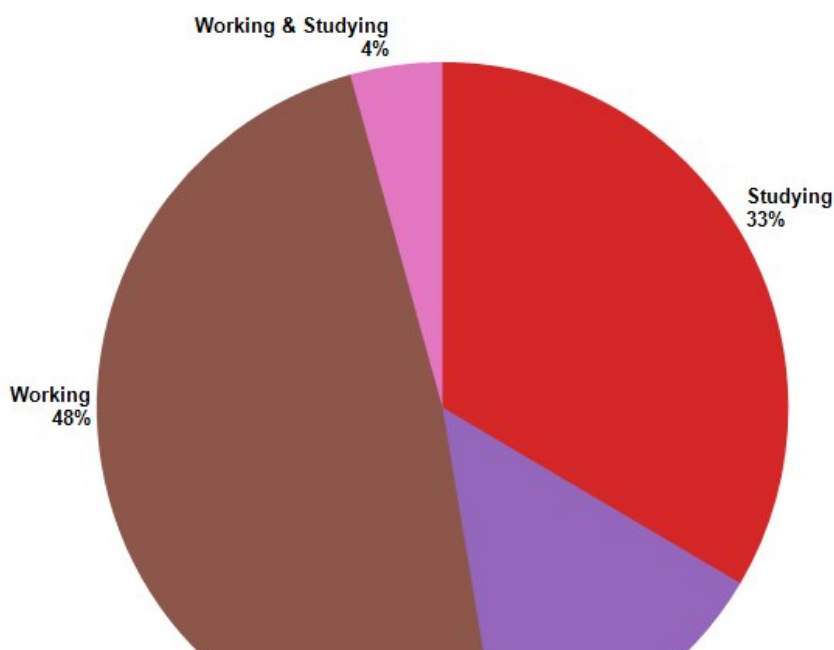
Preparing for your future career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or would rather consider the broad range of opportunities that are available to you once you have your degree, our **Careers Network** (<http://www.birmingham.ac.uk/students/careers/index.aspx>) are there to help you to achieve your goal.

Our unique careers guidance service is tailored to your academic subject area, offering specialised expert advice and mentoring, as well as guidance to help you to secure exclusive work-experience opportunities and global internships, all of which will help you to stand out from the competition. Once you have a career in your sights, one-to-one support with CVs, interview practice and job applications will further help to give you the edge. In addition, our employer-endorsed, award-winning **Personal Skills Award (PSA)** (<https://intranet.birmingham.ac.uk/as/employability/psa/index.aspx>) recognises your extra-curricular activities and is an accredited employability programme designed to improve your career prospects.

If you make the most of the **wide range of services** (<https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx>) you will be able to develop your career from the moment you arrive.

Destinations of Leavers from Higher Education (DLHE) 2011/12

The DLHE survey is conducted 6 months after graduation.



Range of Occupations for Birmingham's Chemistry Graduates

- Accountant
- Analytical Chemist
- Analytical Engineer
- Chemical Analyst
- Development Chemist
- Assistant Commissioning Editor
- Assistant Technical Officer
- Laboratory Chemist
- Manufacturing Graduate
- Process Development Chemist

Further study - examples of courses

- MRes Human and Environmental Health Impacts of Nanoscience and Nanotechnology
- MSc Advanced Chemical Engineering
- MSc Analytical Toxicology
- MSc Biochemical Engineering
- MSc Forensic Investigation

Unemployed
14%

- Second degree in medicine
- PhD - Radiochemistry
- PhD - Cancer Sciences
- Doctor of Pharmacy
- PhD Chemistry

Visit the **Careers section of the University website** (<https://intranet.birmingham.ac.uk/as/employability/careers/college/eps.aspx>) for further information.

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