University of Birmingham

Chemistry with a Modern Language MSci

Undergraduate degree course/programme Chemistry with a Modern Language MSci F1RY:

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 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. By the time you graduate, you will be ready to forge an exciting career that shapes the future of science and society.

Course fact file

UCAS code: F1RY

Duration: 4 years

Places Available: 107 (Total number of places for all Chemistry courses)

Applications in 2014: 814

Typical Offer: AAB (**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)

Contact

Admissions Tutor: Dr Adrian Wright
Telephone: +44 (0)121 414 4361
Email: **ug-chemistry-admissions@contacts.bham.ac.uk (mailto:ug-chemistry-admissions@contacts.bham.ac.uk)**

Chemistry PhD opportunities - Postgraduate Research Degrees (/schools/chemistry/phd/phd.aspx)

Mathematics PhD opportunities - Postgraduate Research Degrees (/schools/mathematics/phd/phd.aspx)

Mechanical Engineering PhD opportunities - Postgraduate Research Degrees (/schools/mechanical-engineering/phd/phd.aspx)

Metallurgy and Materials PhD opportunities - Postgraduate Research Degrees (/schools/metallurgy-materials/phd/phd.aspx)

PhD opportunities - Chemical Engineering (/schools/chemical-engineering/phd/phd.aspx)

PhD opportunities - Civil Engineering (/schools/civil-engineering/phd/phd.aspx)

PhD opportunities - Electronic, Electrical and Systems Engineering (/schools/eese/phd/phd.aspx)

Physics and Astronomy PhD opportunities - Postgraduate Research Degrees (/schools/physics/phd/phd.aspx)

School of Chemistry (/schools/chemistry/index.aspx)

Details

Can you see yourself working abroad or using a foreign language at some point in your career? As the world becomes smaller and boundaries dissolve, such opportunities will be increasingly available for the next generation of scientists. If you enjoy languages, but your main interest lies with chemistry, then our Chemistry with a Modern Language, which has a 98% student satisfaction rating, programme might be for you.

You can currently choose to study one of five languages at Birmingham: **French**, **German**, **Japanese**, **Mandarin** or **Spanish**. Three different three-year streams are available for students entering either as beginners, at GCSE standard, or at A-level standard.

Course Structure

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

In the first three years, you will take 60 credits of core chemistry courses, which cover the fundamental aspects of the subject. These courses include a significant practical component, which not only allows us to develop your practical skills and techniques in a range of experiments, but also to consolidate the theory you will have covered in associated lectures.

You will also take 20 credits of language modules in Years 1–3, which develop both communication skills and cultural awareness. These courses are delivered by staff based in the University's **Centre for Modern Languages (/schools/lcahm/departments/languages/index.aspx)** .

The remaining 40 credits comprise modules designed to support these core courses and include optional chemistry modules, mathematics courses, laboratory modules, as well as courses which focus on communications skills and employability.

There is significant flexibility in your fourth and final year, as you choose 40 credits of taught modules from a range of courses pitched at the cutting edge of the discipline. A major research project makes up the remaining 80 credits. For many students, their final-year project is the most exciting and enjoyable part of their degree and often influences the career pathway they choose to follow after graduating.

This degree programme does **not** require you to spend time abroad. However should you wish to spend some time at a foreign university, for example to carry out a Summer research project, we can make enquiries on your behalf using the contacts, we have set up through our **Chemistry with Study Abroad programme (F106) (/undergraduate/courses/chemistry/chemistry-study-abroad-msci.aspx)** .

First year

In Year 1, you will take **core modules** in the traditional sub-disciplines of **inorganic**, **organic**, **analytical** and **physical chemistry**, all of which include an extensive laboratory work programme as well as 20 credits of your chosen **modern language**.

Those of you who have A-level maths at grade B or higher will choose from a range of non-chemistry **option courses**. Particularly popular options include 'The Cosmic Connection,' delivered by the School of Physics and Astronomy, and 'Good brain – Bad brain,' delivered by the Department of Pharmacology.

Those of you who do not have A-level maths – don't worry! We provide an **introductory maths** course in Semester 1, which you take in place of the option course. This course will bring you up to speed with the common mathematical techniques needed for chemistry. In Semester 2, everyone comes together to take **Numerical Methods**. In this more advanced course, you will begin to apply your mathematical skills to chemical problems. Both maths courses have been designed and are delivered by staff from Chemistry, which ensures you are equipped with those skills you need to tackle the more physical and theoretical aspects of our courses.

Second year (contributes 20% to overall degree mark)

In Year 2, you will build on material from your first year as we employ a combination of lectures and practicals to further your understanding of the fundamental aspects of chemistry. In addition to core courses in organic, inorganic and physical chemistry, you will continue to develop your language skills.

Third year (contributes 40% to overall degree mark)

In Year 3, core chemistry modules in inorganic, organic and physical chemistry are accompanied by advanced classes in your chosen modern language. An advanced laboratory course will also prepare you for the major research project that you will undertake in your fourth year.

Fourth year (contributes 40% to overall degree mark)

You will study just chemistry in this, your final, year during which, significant flexibility allows you to specialise in a particular sub-discipline should you wish. You will choose from a range of courses that reflect the state-of-the-art of the discipline, which not only allows us to showcase the cutting-edge research interests of the School but also ensures that you are aware of the latest challenges in this rapidly advancing subject.

In addition to 40 credits of taught chemistry modules, you will join one of the School's research groups, and become a member of the Research School as you undertake a **major research project** (worth the remaining 80 credits). You will work closely with your project supervisor to tailor your project to your particular interests and ensure you develop those research skills that you feel will be most beneficial to you after completing your degree.

Generic skills-training, focusing on transferable skills and employability, is embedded throughout the course from the outset and will ensure that you are equipped with the ICT, presentation, team-working and problem-solving skills, which are seen as crucial by employers.

MSci or BSc? The first two years of this MSci course are interchangeable with, and identical to, our corresponding **BSc programme (F1R9) (/undergraduate/courses/chemistry/chemistry-language-bsc.aspx)** , which means you can delay your final choice of degree (MSci or BSc) until the end of Year 2. MSci study is dependent upon performance: you will need a 60% mark in Year 2 in order to remain on the MSci programme

Other options

- **Chemistry undergraduate degree courses - School of Chemistry (http://www.birmingham.ac.uk/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx)**

Related links

- **School of Chemistry undergraduate degree scholarships (http://www.birmingham.ac.uk/schools/chemistry/undergraduate/scholarships.aspx)**
- **Frequently asked questions (http://www.birmingham.ac.uk/schools/chemistry/undergraduate/faq.aspx)**

Why study this course

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!

The unique feature of this particular four-year, single-honours Chemistry MSci course is the opportunity to improve your modern language skills at the same time as studying chemistry. It is relatively unusual for university graduates to have expertise in a science and also be fluent in a modern language. Graduating with a Chemistry with a Modern Language degree will therefore help you to stand out from the crowds when it comes to applying for a job; indeed, global corporations who have a presence outside of the UK will likely view a bilingual applicant in a very favourable light.

Read more about why you should **study Chemistry at Birmingham (/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.

Core courses (60 credits in Years 1–3) are taken by all students enrolled on both single honours and major/minor degree programmes and cover those fundamentals of the subject that we deem essential. These courses 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.

You will also take 20 credits of language modules in Years 1–3, with the remaining 40 credits comprising modules designed to support the core chemistry courses and include optional chemistry modules, mathematics courses and laboratory modules, as well as courses which focus on communications skills and employability.

You study just chemistry in Year 4, taking 40 credits of taught material from a wide selection of courses pitched at the cutting edge of the subject. A major research project accounts for the remaining 80 credits.

Detailed module descriptions are located on the **course breakdown (/schools/chemistry/undergraduate/course-modules.aspx)** page on the School of Chemistry website.

Fees and funding

Standard fees (http://www.birmingham.ac.uk/students/ug/courses/fees/standard) apply
Learn more about **fees and funding (/undergraduate/fees/loans.aspx)**
Scholarships

Learn more about the University of Birmingham's **scholarships and awards (/undergraduate/fees/funding/index.aspx)** and those offered by the **School of Chemistry (/schools/chemistry/undergraduate/scholarships.aspx)** .

Entry requirements

Number of A levels required: 3

Typical offer: AAB

Required subjects and grades: Chemistry; one (or more) from Biology, Physics, Mathematics and Further Mathematics is highly desirable but not essential. If you are not taking a modern language at A-level, you must also have a minimum grade A at GCSE level (or equivalent) in a modern language.

General Studies: and Critical Thinking are not accepted.

International Baccalaureate Diploma: 6,6,5 at Higher Level, including Chemistry at Higher Level, with a minimum of 32 points overall. One or more additional science subjects at Higher Level is advantageous. A minimum of 5 at Standard Level English and 4 at Standard Level Mathematics is required for those students who do not have a minimum of grade C in English at GCSE and of grade B in Mathematics at GCSE.

Additional information:

Other qualifications are considered – learn more about **entry requirements (http://www.birmingham.ac.uk/students/ug/requirements)**

International students:

Learn more about **international entry requirements (/International/students/country/index.aspx)** .

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)** .

How to apply

Apply through UCAS at **www.ucas.com (http://www.ucas.com)**
Learn more about **applying (http://www.birmingham.ac.uk/students/ug/courses/apply)**

Key Information Set (KIS)

Key Information Sets (KIS) are comparable sets of information about full- or part-time undergraduate courses and are designed to meet the information needs of prospective students.

All KIS information has been published on the Unistats website and can also be accessed via the small advert, or 'widget', below. On the **Unistats website (http://unistats.direct.gov.uk)** you are able to compare all the KIS data for each course with data for other courses.

The development of Key Information Sets (KIS) formed part of HEFCE's work to enhance the information that is available about higher education. They give you access to reliable and comparable information in order to help you make informed decisions about what and where to study.

The KIS contains information which prospective students have identified as useful, such as student satisfaction, graduate outcomes, learning and teaching activities, assessment methods, tuition fees and student finance, accommodation and professional accreditation.

Related links

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

School of Chemistry undergraduate degree scholarships (/schools/chemistry/undergraduate/scholarships.aspx)

School of Chemistry undergraduate degrees - frequently asked questions (/schools/chemistry/undergraduate/faq.aspx)

School of Chemistry undergraduate brochure (pdf 3.2 MB) (/Documents/college-eps/chemistry/brochures/chemistry-undergraduate-brochure.pdf)

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

On average, 85% of the students graduating from this course go straight into work and/or further study after graduation. Those in work were typically earning in the range £16,000-£25,000 pa six months after graduation.

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.

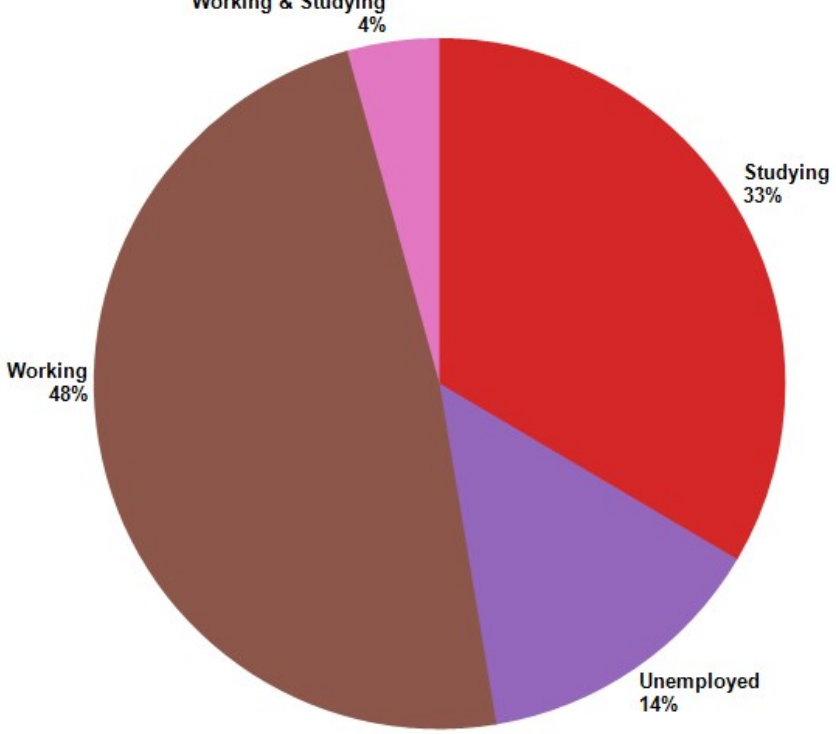
If you make the most of the **wide range of services (https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx)** you will be able to develop your career from the moment you arrive.

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

Working & Studying



- 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
- 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.

Professional accreditation

Graduates are eligible for professional membership of the Royal Society of Chemistry

97% Students agreed staff are good at explaining things

MSci (Hons) Chemistry with a Modern Language
Full time

To see more details and compare with other courses

Visit UNISTATS

Official data collected by HEFCE

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