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Chemistry with Study Abroad MSci

Undergraduate degree course/programme Chemistry with Study Abroad MSci F106:

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.

Study here and find out why the University of Birmingham has been 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: F106

Duration: 4 years

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

Applications in 2013: 757

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

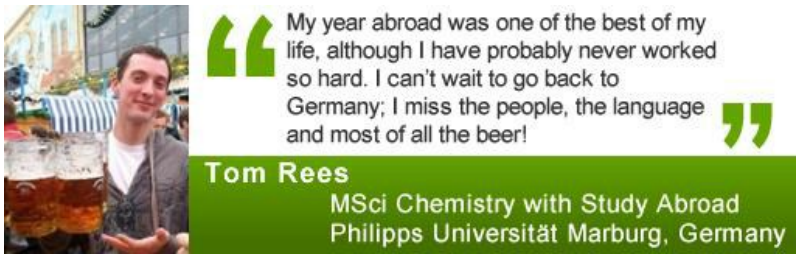
Chemistry undergraduate degree courses - School of Chemistry (/schools/chemistry/undergraduate/undergraduate-degree-courses.aspx)

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)**

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

Details



Would you like to spend one year of your degree studying chemistry at a foreign university? Perhaps you are interested in developing your language skills whilst training as a chemist or you see yourself working abroad in a future career. If so, our Chemistry with Study Abroad programme, which has a 96% student satisfaction rating, might be for you.

Placements in Europe (studying in language of host country):
Birmingham has an arrangement with universities in the following countries: **France** (**Université Bordeaux 1 (http://www.u-bordeaux1.fr)** , **Université Claude Bernard Lyon 1 (http://www.univ-lyon1.fr)** , **Ecole Nationale Superieure de Chimie de Montpellier (http://www.enscm.fr)** , **Ecole Nationale Superieure de Chimie de Toulouse (http://www.ensiacet.fr)**), **Germany** (**Technische Universität Braunschweig (https://www.tu-braunschweig.de)** , **Philipps Universität Marburg (http://www.uni-marburg.de)**), **Italy** (**Università di Pavia (http://www.unipv.eu/site/home.html)**) and Spain (**Universidad de Santiago de Compostela (http://www.usc.es)**). Students on these placements pay **reduced tuition fees** whilst on their year out (the figure for 2012 home/EU entrants is £1350) and are eligible to apply for an award from the EU Erasmus Programme to assist with living costs. **Further details on fees and funding opportunities (/undergraduate/studyabroad/funding.aspx)** .

Laura Totterdell
MSci Chemistry with Study Abroad, Montpellier, France

My French improved dramatically and the time spent in the lab really prepared me well for my final-year project…even if it was challenging at times, I would definitely recommend the course…and revision is a lot less painful when you're on the beach and it's 30 ºC!"

Placements in Europe (studying in English):
Should you like the idea of experiencing life in a European country but are a little daunted by the thought of studying Chemistry in a second language then you could opt to study in English at one of our partner institutions in **Finland** (**University of Helsinki (http://www.helsinki.fi/university/)**) and **Sweden** (**Uppsala University (http://www.uu.se)**). Students on these placements pay **reduced tuition fees** whilst on their year out (the figure for 2012 home/EU entrants is £1350) and are eligible to apply for an award from the EU Erasmus Programme to assist with living costs. **Further details on fees and funding opportunities (/undergraduate/studyabroad/funding.aspx)** .

Placements further afield (studying in English):
Studying abroad at an English-speaking university outside of the EU is increasingly popular. We have well-established arrangements for studying chemistry in **Australia** (**Melbourne (http://www.unimelb.edu.au)** , **New South Wales (http://www.unsw.edu.au)** , **Queensland (http://www.uq.edu.au)** and **Adelaide (http://www.adelaide.edu.au)**), **New Zealand** (**Auckland (http://www.auckland.ac.nz/uoa/)**) and **Singapore** (**National University of Singapore (http://www.nus.edu.sg)**). However through worldwide links organised by the University's **International Relations Office (/undergraduate/studyabroad/outgoingstudents/index.aspx)** , it is also possible for placements to be arranged in countries such as **Brazil, Canada** and the **USA**. Should you require further information about these potential overseas placements, please **contact us (mailto:ug-chemistry-admissions@contacts.bham.ac.uk)** in the first instance. Students on these placements pay **reduced tuition fees** whilst on their year out (the figure for 2012 home/EU entrants is £1350). **Further details on fees and funding opportunities (/undergraduate/studyabroad/funding.aspx)** .

Rachel London
MSci Chemistry with Study Abroad,University of New South Wales, Australia

I chose to come to Birmingham because this course allowed me to spend a year studying in Australia.

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 two 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. The remaining 60 credits comprise modules designed to support these core courses and include optional chemistry modules, mathematics courses, laboratory modules, as well as courses focusing on communications skills and employability. If you intend to study at a non English-speaking university in your year abroad, 20 credits of language modules in Years 1 and 2 will help to develop your language skills.

After spending your third year studying abroad at your chosen university, you will return to Birmingham for your fourth year. You will find significant flexibility in this, your 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.

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.

If you intend to study at a non English-speaking university on your year out, you will also take a module in the appropriate **modern language**, otherwise, for those of you who have A-level maths at grade B or higher, you 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. Our maths courses 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 also take **chemical electives**, choosing from a range of courses, which include analytical chemistry, computational chemistry and biological chemistry, that is, unless you are planning on studying at a non English-speaking university in your third year, in which case you will take a further module in the appropriate **modern language**.

Third year (contributes 20% to overall degree mark)

Your third year is spent out at your chosen university. Our Course Director will have already liaised with your host department to identify appropriate courses for you that will ensure you return to Birmingham with the necessary skills and knowledge to successfully rejoin your MSci cohort for the fourth year.

Fourth year (contributes 60% to overall degree mark)

Significant flexibility in this, your final, year, means you can 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 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.

Progression requirements: In recognition of the challenging nature of the final two years of this course, we require you to achieve minimum overall year marks in Years 1 and 2 of 60% to remain on this 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 third year in which you will study overseas at one of our partner institutions in Europe or further afield. Spending a year, living and studying in another country will not only allow you to experience a different culture and, should you wish, improve

your language skills but also broaden your horizons to the fantastic opportunities that are available to Chemistry graduates establishing careers in the global economy.

Yvonne Malewski
MSci Chemistry with Study Abroad, University of Auckland, New Zealand

I've already learnt so many things from my stay here, including those which can't be taught.

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 and 2) 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.

The remaining 60 credits in the first two years comprise modules designed to support these core courses and include optional chemistry modules, mathematics courses, laboratory modules, and courses which focus on communications skills and employability, as well as language modules for those planning on studying at a non English-speaking university.

Year 3 is spent out at your chosen university at which you will take 120 credits of modules that will have been chosen to ensure you return to Birmingham with the necessary skills and knowledge to successfully rejoin your MSci cohort for the fourth year.

In Year 4, you take 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 while in the UK.
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: A-level subjects must include Chemistry. If you intend to study at a non-English-speaking university, you must also have a minimum grade A at GCSE level (or equivalent) in an appropriate language if you are not taking a modern language at A-level.

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

International Baccalaureate Diploma: Typical offer 34–35 points including Chemistry at HL. One or more additional science subjects at HL is advantageous. A minimum of 5 in SL English and 4 in SL Maths is required for those students who do not have a minimum of grade C in English at GCSE and of grade B in Maths 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

The typical salary that a student graduating from Birmingham Chemistry can expect to earn on graduation is £22,000 per annum.

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

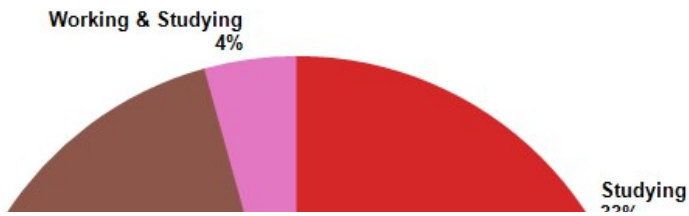
Preparing for your future career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or would rather consider the broad range of opportunities that are available to you once you have your degree, our **Careers Network (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.

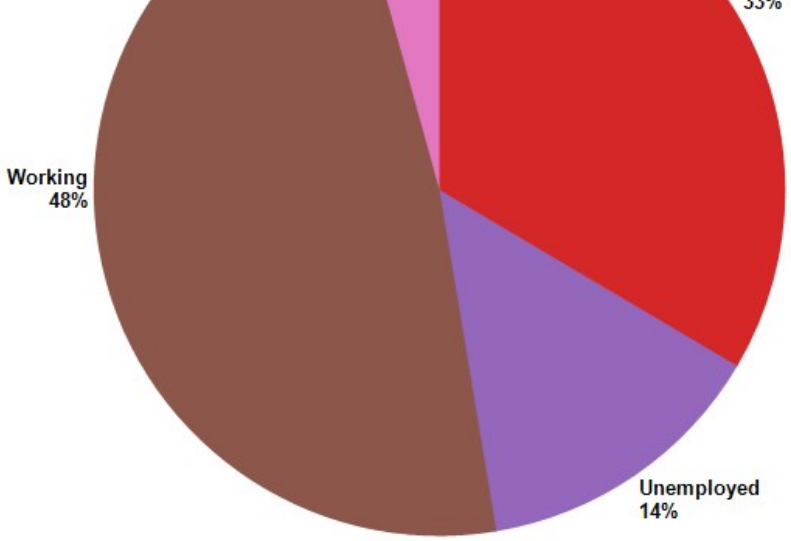
Destinations of Leavers from Higher Education (DLHE) 2011/12

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
- 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

This course is accredited by the RSC for those students choosing to study at a university in which English is the language of instruction.

RSC | Advancing the Chemical Sciences

96% Students agreed staff are good at explaining things

MSci (Hons) Chemistry with Study Abroad
Full time
Year abroad

To see more details and compare with other courses

Visit UNISTATS

Official data collected by HEFCE

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