

School of Chemistry

FACULTY OF MATHEMATICS AND PHYSICAL SCIENCES



UNIVERSITY OF LEEDS

Chemistry
Undergraduate
Degrees 2012



Chemistry Undergraduate Degrees 2012

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FASTFACT: Modern solar cells depend on synthetic dyes to efficiently capture light energy.



Welcome to the School of Chemistry at the University of Leeds. Choosing a degree course is one of the biggest decisions that you can make, and therefore we have provided lots of useful information in this brochure to help you decide which chemistry course is right for you. Our degree programmes are carefully designed to make sure they prepare you in every way for your future career.

The School is ranked in the top 10 in the UK for the quality of its research. This means that every day you will be guided through the world of chemistry by scientists who have an international reputation for their subject knowledge.

At Leeds we make sure that our courses are flexible so that you can tailor your degree and pursue the areas of science that most excite you. You can choose from a range of different degree programmes in either 3-year (BSc) or 4-year (Integrated Masters) format.

The degree programmes range from our general Chemistry course to the more specialised Medicinal Chemistry, Analytical Chemistry and Colour Science pathways. Within each programme there are also lots of choices at the module level so that you can focus your studies on the areas of chemistry that interest you most. Of course, choosing the correct degree option is a difficult enough choice and so we let you make key decisions after you arrive.

The first year of study is common to all of our single honours degree programmes and so you have the flexibility to change your precise programme of study after you have studied the topics in more detail and found out what really interests you.

Our Integrated Masters programmes are accredited by the Royal Society of Chemistry and recognised to meet international standards so you know that when you graduate with a degree from Leeds you will be able to compete for the career that you want in the global marketplace.

Chemistry is one of the broadest and most intriguing of all the sciences. Leeds' researchers are involved in the development of new medicines to help combat diseases such as cancer and multidrug resistant bacteria. We are developing new catalysts to make reactions work more efficiently and new materials that appear in devices all around the home.

It is chemists who really understand how the atmosphere works and give us the knowledge which helps us predict changes to the climate. From the nanometer scale of quantum mechanics to the light years of evolution and interstellar reactions, chemistry has shaped and continues to shape our lives.

Where next? As a student of chemistry it will be you who defines the next big advances in the subject. We look forward to joining you on this exciting journey.

DR STUART WARRINER
Undergraduate Admissions Tutor

FASTFACT: The colour of carrots and sweet potatoes is derived from the poly-alkene functionality in carotene.



SCHOOL OF CHEMISTRY

As one of the premier universities in the country we understand what it takes for our students to reach their potential. Chemistry is a living subject with new discoveries being made every day. All the staff who teach you are experts in their field which means that our courses reflect the current thinking in the subject.

All our teaching takes place in outstanding facilities to make sure that you experience the widest range of different teaching methods and practical techniques. Our teaching laboratories are some of the best in the country.

The combination of our high quality facilities and inspirational and friendly staff means that we make sure that every student leaves the University after an exceptional learning experience with a degree that is internationally recognised as a mark of excellence.

WHY STUDY CHEMISTRY AT LEEDS?

Our current students enjoy the School of Chemistry for its friendly atmosphere and helpful staff. It is this supportive environment that helps us to ensure that your university experience is exceptional, giving you the opportunity to reach your full potential whilst preparing you for your future career.

When you come to Leeds, you can be sure that you will:

- have access to the best services and facilities
- be taught by staff who are actively engaged in world-class research and cutting-edge professional practice
- have the opportunity to join our graduates who have been successful in all walks of life, throughout the world

“I think that it’s nice that we have such a mix of how we are taught. It’s great having demonstrators in the labs and you can ask questions. Tutorials are great for one-on-one time and lectures are nice for covering the groundwork.”

LYDIA HANDFORD – CHEMISTRY FIRST YEAR STUDENT





All our **Integrated Masters** courses meet European standards and are accredited by the Royal Society of Chemistry.

FLEXIBILITY TO MAKE YOUR DEGREE WORK FOR YOU

Our flexible honours degrees give you the opportunity to focus your studies on the areas that interest you most and really help make your degree work for you, ensuring that it underpins your future career ambitions. As well as our three-year BSc degree programmes, we also offer four-year Integrated Masters degrees which provide graduates with the dual award of a BSc and MChem qualification.

All our Integrated Masters programmes of study are in line with the Bologna Agreement which means that they meet the requirements of the European HE Area Framework for qualifications. This means you will be well prepared for the job market with a qualification that is recognised internationally.

The Integrated Masters programmes are specifically designed for students considering a career as a professional chemist or who may want to continue on to do a PhD. One of the key features of these programmes is the individual practical research project, which forms a major part of your final year of study. It is your opportunity to carry out a brand new project, supervised by a leading academic, in an area of chemistry of your choice. The quality of the project work is so high, that a number of our final year research projects are published in peer reviewed journals every year. Many of our students find this the most exciting and rewarding part of their degree.

Our BSc programmes are designed for those who may not wish to pursue a career in chemical research but want to use their chemical and technological knowledge in a diverse range of other careers.

The BSc programme gives an increased emphasis to the development of your transferable skills such as giving presentations and scientific writing.

Together with your chemical knowledge, your BSc prepares you for a range of careers from finance to management and teaching to scientific journalism.

If you are not yet sure whether BSc or Integrated Masters is right for you then don't worry, you can change between the three- and four-year single honours programmes up until the end of your second year when you have had more experience of advanced chemistry.

Our degree programmes have a modular structure. Each year you will study courses worth a total of 120 credits made up of a variety of compulsory and optional modules. Each module is worth either 10, 20 or 30 credits (10 credits is equal to 100 hours of work). During years 1 and 2, you will study core material covering the basic elements of organic, inorganic, physical and analytical chemistry.

As you progress through your course, you will be offered a wide range of opportunities, including industrial and overseas placements. Your third year of study can include an individual literature project and, if you choose to take your studies to a fourth year, you will perform a practical research project spanning both semesters for up to three days a week.

Regardless of which programme of study you choose, all our courses are designed to support you in really reaching your full potential and ensuring you have the best possible skill set when you leave university to take on your future career.





FASTFACT: Shirts are made of sugar!
Cotton is made of many glucose molecules linked together.

ACADEMIC STANDARDS

In the last Research Assessment Exercise (RAE) the School of Chemistry was confirmed as one of the top chemistry departments in the UK, being ranked 8th for the quality of its research, helping to position the University of Leeds as one of the top research universities in the UK. This means you will be taught and supervised by world-class academics at the cutting edge of their discipline who will challenge, encourage and support you in your studies.

ACADEMIC FACILITIES

The School of Chemistry has undergone a £13M refurbishment of all its research and teaching laboratories. The new teaching laboratories for synthetic, physical and analytical chemistry are some of the best in the country. Teaching and research are supported by the following state-of-the-art facilities and equipment:

- Multiple high specification NMR and mass spectrometers
- Single-crystal X-ray diffraction analysis facilities
- Femtosecond and nanosecond laser spectroscopy
- Single molecule fluorescence microscopy
- High pressure supercritical CO₂ reaction facilities
- Atmospheric simulation chambers
- Robotic liquid handling and automated synthesis apparatus
- High throughput screening facility
- Time-resolved and static FTIR
- Class II microbiological suite

STUDENT CARE

The School's pastoral care team are there to welcome and support you throughout your studies. You are assigned a personal tutor, who takes care of your academic and personal development throughout the course.

The University also has a wide range of student support services and a student advice centre within the University Union. As well as formal arrangements for student support the School's very friendly atmosphere provides plenty of opportunities for students and staff to mix on an informal basis. This is helped along by the student society 'ChemSoc' which regularly organises social events for the School.

DISABILITY SERVICES

The University of Leeds has a strong reputation for supporting students with disabilities. Our purpose-built Disability Services Centre works with over 900 students to help them maximise their potential.

If you will need support during your time with us, contact Disability Services during the summer before you arrive (or earlier, if possible) so that we can assess your needs and work out the best way of providing support.

For more information visit www.equality.leeds.ac.uk or contact
Tel: +44 (0)113 343 3927
(calls in a RNID typetalk are welcome)
Fax: +44 (0)113 343 3944
Textphone: +44 (0)113 343 2616
Email: disability@leeds.ac.uk



FASTFACT: The amount of carbon in the human body is enough to fill about 9,000 pencils.

TYPICAL SINGLE HONOURS ENTRY REQUIREMENTS

ABB at A-level. Chemistry must be one of these subjects and we do not accept A-levels in General Studies or Critical Thinking

ENGLISH LANGUAGE QUALIFICATIONS

If your first language is not English, you will also need to provide us with evidence of an English language qualification, such as IELTS (see below for more information)

QUALIFICATIONS

Our typical entry criteria for both our three- and four-year courses require students to attain A-levels at grades ABB. Chemistry must be one of these subjects and we do not accept A-levels in General Studies or Critical Thinking. You must also have GCSE English at grade C and Maths at grade B or above (or equivalent). See page 10 for details of our joint honours entry requirements.

We accept a variety of alternative qualifications; including the International Baccalaureate and our admissions staff are familiar with a wide range of UK and international qualifications. If you have any questions about your qualifications or eligibility to apply we will be happy to help. Please contact us on +44 (0)113 343 6440 or e-mail admissions@chem.leeds.ac.uk

INTERVIEWS

For applicants who are based in the UK, we are unable to make offers without interview. Suitably qualified applicants will be invited to attend a UCAS visit day, which will include an interview with an academic member of staff. Importantly this visit not only lets us meet you but also enables you to see what student life is like at Leeds. You will have the opportunity to meet some of our undergraduate students and have a tour of the School and campus.

ENGLISH LANGUAGE QUALIFICATIONS

If your first language is not English, you will also need to provide us with evidence of an English language qualification, such as:

- IELTS: 6.0 overall with no less than 5.5 in any one component, or
- ibt TOEFL 87 overall, including reading 22, writing 21, speaking 23, listening 21
- GCSE English (Grade C or above)

ACCESS TO LEEDS

The University of Leeds recognises that not all applicants are able to demonstrate their talents and potential as readily as others through grades alone. Access to Leeds is an alternative admissions scheme which gives special consideration to students who have the potential to excel at the University but whose personal circumstances may affect their ability to succeed in pre-university examinations. For more details visit www.chem.leeds.ac.uk/access

DEFERRED ENTRY

We are happy to receive applications from students who have taken or are planning to take a gap year.

APPLYING TO LEEDS

Please make your application through the Universities and Colleges Admissions Service (UCAS) online at www.ucas.ac.uk



Our courses are available to study as 3-year (**BSc**) or 4-year (**MChem, BSc Integrated Masters**) degree programmes.

CHEMISTRY (F100/F103)

This is our most popular course and is taken by approximately 70% of our students. The course gives a wide ranging view of all aspects of chemistry and prepares you for a career in any area of the subject. During the first year you will learn the fundamental principles that underpin chemistry. In your second, third and fourth years (Integrated Masters only) you will build upon these initial foundations and cover a wide range of different aspects of chemistry.

In physical chemistry lectures you will learn to describe how molecules are held together, using the concepts of quantum mechanics. Energy is fundamental to all chemical processes and you will discover how the energy profiles of reactions control the thermodynamics and kinetics of chemical transformations.

Inorganic chemistry lets you explore the reactivity of metals and discover how the subtle difference in the electronics of the different metals enables them to form a wide variety of different complexes, which have different shapes and properties.

The organic chemistry component of the course will give you an in depth understanding of organic transformations and reaction mechanisms and also explain how modern analytical techniques such as NMR can be used to elucidate the structure of molecules.

All these theoretical courses are backed up by extensive practical sessions in the laboratory, so you actually get to perform experiments that reinforce the material taught to you in the lectures. In addition, small tutorial groups are used to support the teaching so you receive regular feedback from the academic staff helping you solve any problems that you might have with a particular topic.

As you advance through the course you can select precisely which modules you study to let you explore advanced topics in more detail. You can investigate how chemists use their skills to understand complex biological systems or synthesise molecules in just one of two mirror image forms. You may wish to explore the exciting fields of supramolecular chemistry in which molecules are designed to assemble into large molecular architectures or discover all about the latest catalysts which improve the efficiency of chemical transformations. You can also study the chemistry of the atmosphere and find out how critically important chemical reactions in the atmosphere are in understanding human interaction with the climate.

You can choose to spend the third year of the four-year Integrated Masters programme working in industry or studying at a university abroad (see pages 14 and 15 for more details). If you decide to take the Integrated Masters option you will undertake a major research project in your final year. Working with experienced scientists and supported by millions of pounds of specialist equipment, you will have the opportunity to discover new chemistry and define new concepts for science.

There are over **50,000** items of glassware in our state-of-the-art teaching laboratories!



FASTFACT: It takes on average 12 years of research and development to bring a new medicine to the market.

FOCUSED OPTIONS

In addition to our standard Chemistry degree we offer three more focused course options that allow you to tailor your chemistry degree and study a particular area of the subject in more detail. Each of the courses below can be studied in three years leading to a BSc or in four years leading to the award of an MChem, BSc – an Integrated Masters degree. Remember all the single honours courses in the School start with a common first year so you don't need to make your final course decision until you have experienced the different parts of chemistry in more detail.

MEDICINAL CHEMISTRY (F150/F153)

Without medicinal chemists, life as we know it would be impossible. Modern medicines give us pain relief, cure bacterial infections and fight viruses and cancer. Without the arsenal of drugs at their disposal doctors would be unable to cure many common diseases. It is the ability of medicinal chemists to have a positive impact on the health and well-being of millions of people worldwide that motivates many of our students on this course. The basic programme structure shares much with the standard Chemistry course but here you will focus your study more on the organic elements of chemistry with an enhanced level of teaching on drug synthesis, pharmacology and how drugs work in biological systems. The course is supplemented with advanced topics such as studying cancer chemotherapy antibacterial agents.

The design and synthesis of modern medicines requires a broad understanding of how molecules bind to their biological targets and how drugs interact in the body. The course gives you a detailed understanding of the bio-molecular mode of action of drugs, how they are metabolised and what interactions can cause side-effects. You will also study

advanced topics such as exploring how monoclonal antibodies have been developed as therapeutic agents and explore the challenges facing medicinal chemistry in the future.

The course is run in close collaboration with scientists from the pharmaceutical industry who help give you insight into the techniques used in industry on a day-to-day basis.

CHEMISTRY WITH ANALYTICAL CHEMISTRY (F180/F192)

Without analytical chemistry most other aspects of chemistry would not be able to function. As an analytical chemist you will develop an in depth understanding of the processes that allow us to separate compounds in complex mixtures and quantify them in minute levels. Analytical chemists use their expertise to give us critical information on the state of our environment by analysing the atmosphere and water for pollutants.

Analysts support medicine and the pharmaceutical industry by developing medical diagnostics and checking the purity of drugs. Many chemical processes also rely on careful analysis of their products in order to maintain quality and consistency.

The course especially focuses on advanced elements of spectroscopy and separation science, followed by specialised training in areas such as molecular separation, purification and structural identification.



FASTFACT: Aluminium has more uses than any other metal, and can be found in cables, aeroplanes, window frames and drink cans.

CHEMISTRY WITH COLOUR SCIENCE (F191/F194)

Colour is an essential part of life; it affects our decisions and controls our emotions. From printed materials to electronic displays, food to cosmetics, colour science is a vital part of many industries. Paints and textiles, medical dyes and polymers, communication technologies and marketing brands all rely on the chemistry of colour.

The Colour Science section at the University of Leeds is internationally renowned for teaching and research, with a tradition of excellence dating back over a hundred years.

The course combines a thorough training in organic, physical and inorganic chemistry together with specialist teaching in the chemistry and application of colour.

After studying core chemistry topics in the first year, you will start to study specialist modules on colour technologies alongside other core chemistry modules from the second year onwards. Topics include studying the chemistry of colours, flavours and fragrances along with the synthesis and applications of polymeric materials.

Throughout the course special colour science experiments in the lab will certainly brighten your week!

JOINT HONOURS

In addition to our single honours courses we also offer a joint honours programme in Chemistry and Mathematics. This is a three year BSc course and has a first year of study which is independent to the other programmes.

CHEMISTRY AND MATHEMATICS (FG11)

This course allows you to study both chemistry and mathematics to degree level and provides the opportunity to create a tailored course around your particular interests.

In all three years you will study modules taught in the Schools of Chemistry and Mathematics giving you a solid grounding in both disciplines.

In mathematics, core modules in linear algebra and calculus can be accompanied by a wide number of optional modules, which allow you to study any field of mathematics.

In chemistry it is normal for you to choose one or two out of the three major areas (organic, inorganic or physical chemistry) to specialise in; you will be guided in your choice to ensure flexibility in options in the latter stages of the course.

TYPICAL ENTRY REQUIREMENTS FOR FG11

AAB at A-level including Mathematics at grade A, and Chemistry. We do not accept A-levels in General Studies or Critical Thinking. You must also have GCSE English at grade C or above (or equivalent).



FASTFACT: Chemistry opens far more doors than most people think – graduates can be found in careers ranging from accountancy, law and banking to media, publishing and the voluntary sector.

I NEVER THOUGHT THAT CHEMISTRY WOULD LEAD ME HERE...

Many of our graduates have been surprised where a degree in chemistry has led them; they have been successful in many different careers, throughout the world. They have discovered that taking a chemistry degree doesn't necessarily mean working in a laboratory.

Carrying out research into new materials, investigating processes or helping to create new products can be very challenging and rewarding but the practical knowledge and problem-solving skills you gain as a chemist can also be used to improve manufacturing efficiency, provide technical support, guide legislation or develop the commercial success of a company.

As a chemistry graduate, you may also wish to consider sharing your knowledge and helping others to learn through teaching or lecturing.

Whether you want a practical, hands-on career working in the lab, a managerial role or to develop professional skills in areas such as patent law or journalism, the career choices you will have with a chemistry degree are endless and cover a huge range of employment sectors.

“My training at Leeds has proved invaluable in my current role. The practical and theoretical skills gained are crucial to my role on a daily basis. Additional training such as presentation skills has proved to be very useful.”

MARK SLATER – SENIOR RESEARCH CHEMIST FOR SYNGENTA

“The highlight of my career so far has been developing a passion for chemistry in my pupils. It's great that I can use the knowledge I gained from my studies to encourage others in the subject.”

TOM GRAVESTOCK, CHEMISTRY TEACHER

FASTFACT: If all the water in the atmosphere fell as rain at the same time, it would cover the entire surface of the Earth with 2.5cm of water.



SUCCESSFUL CAREERS

A huge advantage of having a chemistry degree is that it not only prepares you for working directly in chemical sciences but also gives you a skill-set and knowledge base that is prized in a huge range of employment sectors ranging from financial services to sustainable development. Your chemistry degree might lead you into any of the following sectors:

- Agriculture
- Chemical manufacture
- Cosmetics and personal care
- Education
- Environmental consultancy
- Food and drink
- Government agencies
- Oil and gas
- Pharmaceuticals and fine chemicals
- Paint and surface coatings
- Plastics and polymers
- Textiles
- Water

CAREERS ADVICE

When you are ready to start thinking about your career, the University is very much on hand to help you in your decision making. Expert advice is available at the University Careers Centre throughout your time at Leeds. At the Centre you can access expert support, facilities and resources all-year-round.

For the students who are interested in enterprise, the Centre can also assist you in starting your own business through the Enterprise Scholars scheme. It can help you with business, training and transport costs, introduce you to business and university mentors, provide incubation space for your business and help you to develop your networks.

For further information on careers advice at Leeds please visit www.careerweb.leeds.ac.uk





86% of our graduates either find employment or go on to study at post-graduate level, within 6 months of graduation.

THE SUCCESS OF LEEDS' CHEMISTRY GRADUATES

Our graduates enjoy successful careers in a wide range of roles from medicinal and analytical chemists to technologists, journalists and accountants. Below, some of our graduates explain how a chemistry degree from Leeds has helped them in their successful careers.

Alex Ashall Kelly graduated in 2010 with an MChem in Medicinal Chemistry. He is now working for Novartis in drug discovery.

“Finding a job initially was pretty difficult but I am now working for Novartis in London. I was lucky that I had such a good degree to fall back on. I’m working in drug discovery, which is fantastic and exactly what I want to do; I am learning a lot and the sort of people who are working there are really inspiring. In terms of industry, the research project was probably the most valuable part of my degree, I would say. You have to think on your feet during your project and investigate why things have worked and why they haven’t and I think that it’s really important to have that experience.”

John Drummond studied BSc Chemical Sciences. Since graduating in 1992 he has been working for a chemical distribution company and is now a Director.

“I work in a business to business environment dealing with companies within the pharmaceutical, agrochemical and coatings sectors in particular. I manage business with a turnover of £30m per annum, looking after a team sourcing and selling chemicals for our customers in the UK and Europe. The good thing about Leeds is its location; it’s in the middle of the country.

The campus is in the centre of the city which means that there is plenty on the doorstep and the countryside is easily accessed too. It’s also a very diverse place, students come from all over the country and the world to study there.”

Caroline Chambers studied for a BSc (Hons) Chemistry followed by a PhD in Chemistry. Caroline works as Chief of Capability Acquisition at Rolls-Royce and won the ‘UK Woman of the Future – Science and Technology’ award, 2007.

“Leeds has a good reputation for chemistry, offered the right course for me and I liked Leeds as a city. Student life at Leeds is lively, exciting and enjoyable. One of my favourite memories of Leeds was spending time with friends in labs and lectures and revising for exams, there is the great feeling of togetherness and of all being in the same boat! Working hard and playing hard. The lecturers were helpful, knowledgeable and genuinely interested in helping others to understand and enjoy their subject area. The University also has excellent facilities and chemistry laboratories.”

“I now work for Rolls-Royce plc as Chief of Capability Acquisition for Compressor Manufacturing Engineering. My main role is to develop novel manufacturing technologies to meet customer requirements and deliver business benefits on cost, and quality and ultimately to deliver competitive advantage. The logical and scientific approach learned in my degree has been invaluable in many areas of my role and particularly in problem solving and developing novel technologies. I would definitely recommend Leeds to other students.”

FASTFACT: If all the information contained in a single human cell were written down the words would fill the equivalent of 10,000 volumes of the Encyclopaedia Britannica.



INDUSTRIAL PLACEMENTS

The ‘Year in Industry’ scheme provides you with the opportunity to experience full-time work and earn a full salary before you graduate. Employers actively seek graduates who already have work experience and it can make all the difference in interviews. The extra experience will boost your self-confidence, not only in your chosen subject area, but in the marketplace generally.

Industrial placements are available on all of our Integrated Masters degrees, with students working across a range of pharmaceutical, oil, fine chemical, colour, polymer and other chemistry-related industries. In recent years students went to work at a range of prestigious companies, including:

- AkzoNobel
- AstraZeneca
- Biofocus
- BP
- Croda
- Dominion Color (Canada)
- DSM (Netherlands)
- Fuji Film
- GlaxoSmithKline
- Lubrizol
- Reckitt Benckiser
- Roche (Basel)
- Shell
- Yorkshire Water

INDUSTRIAL PLACEMENTS CAN BENEFIT YOU BY:

- Providing valuable experience in the corporate environment
- Enhancing your wider career skills development
- Putting your academic learning into context

HOW DOES IT WORK?

You transfer onto a four-year ‘industrial’ version of your degree and spend your third year working full-time, returning to us for the fourth year. During your year in industry you have an industrial supervisor from within the company, plus an academic supervisor who will keep in touch.

If you are not sure right now whether or not an industrial placement is right for you, don’t worry, you will not have to give us a firm answer until the beginning of your second year. For more information visit www.chem.leeds.ac.uk/industrial





Our study abroad programme partners with **25 universities** in **10 different countries**.

STUDY ABROAD

Spending a year living and studying in another country is a unique experience. Unlike the passing tourist, you have the chance to totally immerse yourself in another culture. You will gain unforgettable experiences and memories that you will draw upon in your working and personal life for years to come.

Furthermore, the proven ability to live and work in an international context is another asset that employers actively seek. On the Chemistry (F103) course, a study abroad opportunity is available as part of the four-year Integrated Masters degree, where you will have the opportunity to spend the third year of your four year course at a host institution overseas.

“If you have an urge to travel, learn, and become more independent, there’s nothing better than Study Abroad. It’s definitely a big step, but it’s not every day you get given an opportunity to immerse yourself in a different culture and challenge yourself.”

**VANESSA COX –
STUDY ABROAD STUDENT IN BUDAPEST**

The School of Chemistry has exchange links with universities in a range of countries including:

- **Australia** (Sydney, Adelaide, Brisbane, Perth)
- **Canada** (McMaster, Toronto, McGill, Montreal, Alberta)
- **France** (Lille, Marseille, Toulouse)
- **Germany** (Regensburg)
- **Hungary** (Budapest)
- **Spain** (Madrid, Valencia, Santiago de Compostela)
- **Singapore**
- **USA** (Georgia Tech, Penn State, Berkeley)

STUDYING ABROAD CAN BENEFIT YOU BY:

- Giving you an experience of living in a different social and cultural environment
- Helping you improve your language skills (depending on study destination)
- Building up your self-confidence and independence
- Broadening your horizons
- Helping with your self-discovery

More detailed information about the year abroad scheme and how it functions is available online from www.chem.leeds.ac.uk/abroad



“I chose Leeds because I liked the course and Leeds has a really nice student life; it has a good reputation for being student-friendly. It’s a good mix; **it has a good reputation academically** and a really good student life.”

JESSICA THILAGAHATHAN – MEDICINAL CHEMISTRY, FIRST YEAR STUDENT





Did you know that
Leeds University is only
10 minutes walk from
the city centre?

OUR STUDENTS TELL US THAT THEY CHOSE THE UNIVERSITY OF LEEDS BECAUSE...

they were impressed with the community feel of its campus and they liked the fact it was in Leeds city centre, with all that Leeds had to offer on their doorstep.

THE UNIVERSITY OF LEEDS

Leeds has an international reputation and is a member of the prestigious Russell Group of research-led universities, making it one of the most popular universities in the UK. Degrees from Leeds are recognised by employers and universities globally.

OUR CAMPUS

Although the campus and the University itself are big, our students tell us that it has a friendly atmosphere and every student has a School which they can call home. The campus is right next to the city centre, giving you the best of both campus and city centre life.

SPORT

There are plenty of opportunities to participate in sports at all levels. The University has great sports facilities including the on-campus sports centre called The Edge which comprises a brand new swimming pool, state-of-the-art gym, squash courts and sports halls, sauna and steam room. Playing fields for hockey, cricket, football and rugby are just a short distance away. There are lots of different ways to participate in sport at Leeds ranging from beginners to elite level.

LIBRARIES

On the main campus all three of our libraries provide a variety of different working environments to suit your needs, with flexible group study areas as well as quiet individual study space. All feature IT clusters (computer rooms) as well as access to the University's wireless network for work on your own laptop.

STUDENT UNION

Leeds University is also renowned for its thriving Student Union with a range of shops, bars and eateries, an award-winning nightclub and a place to watch the latest bands. It also gives each student the chance to become involved in one of its many societies which range from music and dance societies to martial arts or politics.

THE CITY

Leeds is a key multi-cultural hub in the North of England with an exciting mix of culture, commerce and style. As one of the most vibrant and cosmopolitan cities in the UK many students enjoy their time in Leeds so much that they stay on to live and work in the city after graduation.

CULTURE

The city is well known for its shopping and there is a wide range of outlets from small boutiques to huge shopping malls. Leeds also offers an extensive choice of places to eat and drink. All culinary tastes are catered for, from Italian to Thai, Caribbean to vegetarian. Nightlife in and around the city is also known for its diversity and popularity, offering a range of cafes, lively bars, clubs and music venues.

THE COUNTRYSIDE

Leeds is one of the greenest cities in Britain, with more parkland than any other European city and benefits from being close to the awe-inspiring scenery of the Yorkshire Dales where you can pursue a huge selection of outdoor activities.

LEEDS SPORT

Whatever your sport of choice, Leeds is home to some great teams, from Leeds United football club at Elland Road, to Leeds Rhinos and Carnegie Rugby teams, plus you can also see live test match cricket at Headingley stadium.



FASTFACT: There are over 110 academic staff and research fellows in the School of Chemistry at Leeds.

OUR STUDENTS TELL US THAT THEY CHOSE THE UNIVERSITY OF LEEDS BECAUSE...

they wanted to be taught by staff who have an established reputation for the quality of their teaching.

When you choose Leeds you will benefit from a wide range of teaching methods, which together with the continuous support of our teaching staff, enable you to effectively apply your knowledge through a series of exams, coursework and continuous assessment. This means that you graduate with the correct mix of knowledge and transferable skills for a successful future career, whatever you choose to do.

When you choose Leeds you will benefit from the following teaching methods:

LECTURES

You will learn by listening to a lecturer, who will probably use either PowerPoint slides or white boards. You will be expected to take notes and there may be hand-outs (often available on the web for you to download). You will typically be in a group of up to 150 students and you will have between eight and ten hours of lectures a week.

TUTORIALS

These usually complement a lecture, and comprise discussions between groups of students (typically five to seven) and a lecturer. The tutor will lead the discussion or work through examples sheets and the students will interact both with each other and the lecturer. It is also an excellent opportunity to ask questions and make sure that you understand the material that is given in lectures.

WORKSHOPS AND EXAMPLE CLASSES

These take place in larger groups of students (20-100) in which you often work in small groups to practise problems associated with the course. Lecturers are available to help with any

questions you may have. These are an excellent way for helping prepare you for examinations.

PRACTICALS

Performing practical work is at the very heart of chemistry and our students tell us that this is the best part of their degree and that they really enjoy the atmosphere we have in our laboratories. We provide some of the most pre-eminent undergraduate teaching laboratories in the UK. This, combined with a comprehensive range of experiments and supported by staff and demonstrators to assist you in your practical work when needed, means you will have every opportunity to fully develop your practical skills and scientific methodology. You will spend, on average, nine hours a week in the laboratories.

INDEPENDENT STUDY

There are various facilities to aid you with independent study including extensive computer clusters and virtually universal wireless connectivity.

The Edward Boyle Science and Engineering Library is only two minutes walk from the School of Chemistry and not only has multiple copies of the recommended books but also provides a variety of different studying environments, such as personal and flexible group work areas.

PERSONAL TUTORS

Every student is assigned a personal tutor who is there to assist you in your studies. They will advise you about your module choices and opportunities for personal development, discuss your progress with you (e.g. exam results), help you if you have any problems, write references for you and are generally there to make sure you make the most of your time with us.



FASTFACT: Taxol, a drug used to treat lung, ovarian and breast cancer, was originally discovered in the bark of the Pacific Yew tree.

OUR STUDENTS TELL US THAT THEY CHOSE THE UNIVERSITY OF LEEDS BECAUSE...

they wanted a university which offered them exceptional student support throughout every step of their studies.

The School's pastoral care team are there to welcome and support you throughout your studies. You are assigned a personal tutor, who takes care of your academic and personal development throughout the course.

The University, together with the Students' Union also has a wide range of student support services, including:

PEER MENTORS

They will help you when you first arrive at university and throughout your first year. You will be arranged into groups of approximately 10 students, with two peer mentors per group. The mentors are students who are on your course, but are in years 2 or 3 of the programme. Their initial role is to help you to get used to the University and also life as a student in Leeds. You will meet your group during Induction Week for a social activity. They will take you for a tour of the campus, and perhaps the city and introduce you to your personal tutor. Please feel free to ask your mentor anything you like about university life!

A DEDICATED ONLINE LEARNING PLATFORM

Our web-based Virtual Learning Environment (VLE) gives you instant access to a wide range of learning resources, including reading lists, past examination papers, skills guides and assessment guidelines. It also provides an interactive learning forum through a range of tools including tests, blogs, lecture notes, podcasts, surveys, wikis and discussion boards. You can access materials to complement face-to-face teaching. You will be able to view the online lectures when you want and to review and use the tests inserted at the end to check you have understood.

VACATION INTERNSHIPS

You can choose to take advantage of the long university holidays and apply to participate in an internship over the summer, Christmas or Easter vacations. Internships provide an excellent opportunity for you to build on your current skills, as well as gain an insight into working life within a particular company or industry sector. The Careers Centre advertises hundreds of vacation opportunities and helps you to produce a winning application.

STUDENT ADVICE CENTRE AT LEEDS UNIVERSITY UNION

LUU Student Advice Centre is a professional, friendly service providing help with any problems you may have concerning life as a student. Specialising in housing, money and academic advice, all help is free and confidential and is independent of the University.

“The city of Leeds is amazing and the University really appealed to me. The diversity at the University is the best thing about it. Students are treated like adults and you are encouraged to speak your mind.”

**NURIA LUHESI –
MEDICINAL CHEMISTRY
THIRD YEAR STUDENT**





FASTFACT: The Leeds University Union has around 300 societies – students can get involved with anything from volunteer work to canoeing to dance; it's all available at Leeds.

OUR STUDENTS TELL US THAT THEY CHOSE THE UNIVERSITY OF LEEDS BECAUSE...

they thought that it would be a great place to broaden their horizons.

At Leeds you will have the opportunity to undertake a whole host of new activities which will equip you with important skills for use throughout your future career and life. Below is a taster of some of the activities we offer:

CHEMSOC

All chemistry students can become members of the student-run chemistry society 'ChemSoc'. The aim of this society is to give students a chance to meet people from their course in a social environment. It organises socials and nights out at the beginning of the year to help you settle in. Every year ChemSoc hosts many events, from the Christmas party to the end of year ball. It also has its own football and netball teams.

SOCIETIES

The LUU supports around 300 activities, clubs and societies. There's a whole range of fun, interesting and different things for you to do in your free time – everything from sports to music and dance to politics. So here is your chance to take up an activity you have always wanted to do or to further develop a skill or interest.

STUDENT VOLUNTEERING

Volunteering to work with organisations or projects is a great way to broaden your experience and develop valuable skills to enhance your CV. The University has over 1,000 opportunities for student volunteers, from mentoring disadvantaged children in Leeds, to helping to build school playgrounds in Africa.

“I got involved in the Uganda Project and raised over £800. In the summer I went to Uganda with other Leeds students to work building and painting schools in rural communities. I had an absolutely fantastic experience, and we felt very proud of what we had given to the local community.”

TOM RUSSELL, CHEMISTRY STUDENT





FASTFACT: A chemical called Capsaicin is associated with the fiery sensation we get from chilli peppers.



“I like the chemistry course because a lot of people I know are on courses where they don’t get as much contact time as we get here in chemistry and it is definitely better getting more contact time. The School provides a lot for you, like the scholarships package, where you get your books and the lab coats; not a single other university that I went to offered anything like that. They offer you lots of support, like the access course, so Leeds is definitely a good university.”

ADAM MCNAMARA – MEDICINAL CHEMISTRY, FIRST YEAR STUDENT

“The thing I enjoy most is doing lab work. The labs are really good and are a lot more exciting than school labs. They are the best labs that I had seen out of all the universities. We share a fume cupboard with just one other person, I think that’s unusual as I have friends at other universities where there are six sharing. This is the university that I liked the most and the open day was brilliant and that was enough to convince me.”

JAPLOE SNEH – CHEMISTRY, SECOND YEAR STUDENT



“I went round loads of universities on their open days but I was most impressed with it here, I felt as though I could fit in. It’s exciting what you can do in the labs. These are the best labs by far of any of the universities I saw. Here you have the option of working on your own as well as doing pair work.”

KATRINA WALKER – CHEMISTRY, FIRST YEAR STUDENT





There are students and staff from over **100 different countries** at the University of Leeds.

WE WELCOME INTERNATIONAL STUDENTS

The University of Leeds is a truly international university. We have links with over 600 institutions worldwide and up to 5,000 international students study with us each year. We are one of the UK's top universities, world-famous for our teaching and research and situated in the heart of a vibrant and multicultural city.

Studying abroad is both exciting and challenging and as a university, we have over a century of experience of welcoming students onto our courses, which gives us a deep understanding of the pressures you will face. That is why we have an extensive support network in place for international students. From the moment you accept an offer, and throughout the duration of your studies, we offer a range of specialist services to make your time at Leeds enjoyable and worry-free.

The University has a dedicated International Centre (www.leeds.ac.uk/international) and will provide support and advice throughout your time here at Leeds. The Centre can provide assistance in many ways, from the provision of advice on managing your money to helping you look after your health and welfare. The International Student office also provides a useful selection of leaflets detailing further information and advice about UK life.

There are also a host of events organised by the International Centre including day trips to historic towns in the UK – a great chance to meet new friends.

Adapting to life in a new country can be both exciting and challenging. Finding somewhere to live where you feel comfortable will help you settle in quickly. Leeds has plenty of accommodation for students, representing good value for money and reflecting the fact that Leeds has a lower cost of living than London and much of the south of England. Visit www.leeds.ac.uk/accommodation for more details.

For information on international fees and scholarships please visit www.leeds.ac.uk/international/costs

“What would I say to other international students, I would say ‘don’t think twice, just come here because it is very good to be here and you won’t have any problems being here because people are friendly.’”

**NUR BAZILAH THALIB –
CHEMISTRY, FIRST YEAR STUDENT**



We provide University accommodation for over **8,000 students** each year.



ACCOMMODATION

Living in University accommodation is great value for money. All students in their first year of study are guaranteed an offer of a place in University accommodation, provided applications arrive before the required deadline. All our accommodation is within easy reach of the University and city centre. We have a wide range of properties at different rents and there is something to suit every budget.

Some residences are on campus, others within walking distance, and those residences further away are close to bus routes, shops and places to eat.

Of course, different residences have different facilities such as: launderettes, parking spaces, squash courts, pool tables, common rooms, shops and music practice rooms.

The University Accommodation Office also offers an accommodation viewing day every year in spring, helping you choose the best accommodation to suit your needs. For more details on this and for details of how to apply and application deadlines, please visit www.leeds.ac.uk/accommodation

FEES AND SCHOLARSHIPS

2012 is a year of big changes to the ways in which student finance works. As the precise details of fees and financial arrangements are still being agreed with the Government as this document is going to press we have not included any precise details of fees here. You can find out the very latest information on fees and student support arrangements online at www.leeds.ac.uk/yourfinances

The University of Leeds has a long standing history of helping students to manage their finances while at University. We have a comprehensive range of bursaries and scholarships, together with financial advice, to support you throughout your studies. Some schemes provide support on the basis of academic achievements while others offer support to students based on financial need or personal circumstance.

For full information about the University's tuition fees, bursaries and scholarships please see www.leeds.ac.uk/yourfinances or contact ugscholarships@leeds.ac.uk if you have any questions.





FASTFACT: Resveratrol is an antioxidant found in red wine that has anti-cancer properties.

VISIT THE SCHOOL

There are opportunities to visit the School both before and after you apply. Suitably qualified applicants will be invited to a School visit day, during which there is an extensive programme of tours and demonstrations. If you would like to visit us before you apply in order to find out more, why not:

- Attend a University-wide Open Day www.leeds.ac.uk/opendays There are three every year, two in June and one in October and they provide a good opportunity to get a feel for the campus, check out our facilities, and talk to staff members and students.
- Book yourself onto a campus tour – see www.leeds.ac.uk/visitus for options. These take place throughout the year.
- Make an independent visit. If you choose this option, please let us know you are coming at least a week in advance. We can then plan to have member of staff to meet you and show you around the School.

For directions please see www.chem.leeds.ac.uk/undergraduate/visit-us

CONTACT US

If you have questions about the undergraduate courses, modules or any other aspect of studying chemistry at Leeds, please contact:

Undergraduate Admissions Tutor

School of Chemistry

University of Leeds

Leeds

LS2 9JT

Tel: +44 (0) 113 343 6440

Fax: +44 (0) 113 343 6563

E-mail: admissions@chem.leeds.ac.uk

www.chem.leeds.ac.uk

“What would I say to students thinking of coming to Leeds? I would say that university is the best time of your life and I am so glad that I came to Leeds. I definitely chose the best Uni with the best course!”

**TINA BAVA – CHEMISTRY
THIRD YEAR STUDENT**





FASTFACT: Musk, an odorous secretion of the male deer, was a highly sought-after ingredient for use in perfumes. The key odour ingredient muscone is now made synthetically by chemists, much to the relief of the deer.

Legal

For current information on courses, fees and entry requirements please visit our website at www.chem.leeds.ac.uk/undergraduates. Whilst the University endeavours to ensure that the information contained in this brochure is accurate at the date of publication the University does not accept liability for any inaccuracies contained within it. Where circumstances change outside the reasonable control of the University, the University reserves the right to change or cancel parts of, or entire, programmes of study or services at any time without liability, even after students have registered at the University.



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