Welcome from the Head of Department

Welcome to our information booklet about the Department of Chemistry at the University of York.

Perhaps you are looking for information about the different types of undergraduate Chemistry degree programmes we offer, or maybe you would like to know more about our highly praised system of college tutorials.

You might be interested in the opportunities we offer to carry out cutting-edge research with our world-leading academics, like helping to develop a new anti-tumour drug or trying to understand the complex chemical reactions which lead to global warming.

Whatever information you need, I hope that you will be able find it in this booklet or from our website, www.york.ac.uk/chemistry. Most importantly, however, I also hope that you will get a sense of the real excitement and the enthusiasm that we at York all share for Chemistry and its teaching, and what an exciting time it is to study Chemistry at university.

If you can’t find what you need then please give us a call, or best of all come and visit us here in the Department.

For more information see www.york.ac.uk/chemistry/undergraduate/visitdays

We would be delighted to show you around.

Professor
Duncan Bruce
Head of Department

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Why choose Chemistry?

Chemistry is all around us. To study Chemistry is to discover how it is relevant to every aspect of our lives. From an understanding of how pharmaceuticals interact with our bodies, how we affect the environment and how modern materials such as plastics and semiconductors are prepared, the possibilities are endless. Chemistry is often referred to as the ‘central science’ as it covers topics as diverse as quantum mechanics and the study of atomic particles, to the molecular nature of biological systems and the Human Genome Project. Learning about the fundamental basis of chemistry—the analysis of molecules, their structures and shapes and how they react—is vital for our modern society. Chemists can really make a difference in the world!

Why study Chemistry at York?

The University of York has an outstanding reputation for teaching and research, featuring consistently in the top few places in the league tables of UK universities. As part of a £35 million phased redevelopment, a £10 million research building was completed in 2013 and a new undergraduate teaching laboratory and Green Chemistry Centre of Excellence in Spring 2014. The Department of Chemistry is on Campus West, within ten to fifteen minutes walk of all the college accommodation.

The Department of Chemistry offers students

- a personal supervisor to oversee academic progress and personal welfare
- a teaching programme which ensures a highly supportive learning environment
- lectures supported by small-group tutorials and workshops
- state-of-the-art research facilities

We have three members of staff recognised for ‘excellence of teaching’ by the Royal Society of Chemistry, and one awarded a National Teaching Fellowship by the Higher Education Academy. Since its inception, the Department has regularly been in the top ten of the UK Chemistry departments in the National Student Survey. For example, for student satisfaction, over the 11 years of the NSS we have scored an average of 96%. In 2019 York came top in 4 of the 9 categories, amongst all Russell Group universities.

Our Chemistry courses are modular, which allows you considerable freedom of choice. This will enable you to design your own degree pathway, whilst ensuring you graduate as a fully qualified chemist through our MChem or BSc programmes.

We also give you the opportunity to gain experience in industry, to study for a year at another overseas university or to carry out an extended research project in our laboratories. The structure of the course is such that all decision-making is left as late as possible to give you ample opportunities to consider your choices for the future.

The Department of Chemistry at York offers both an international research reputation and top-quality teaching in a modern welcoming department.

First-rate teaching delivered by leading academics, together with award-winning employability programmes, prepares students for the international labour market.

We are proud of the supportive teaching environment we provide. Our students play an important part in helping shape our courses through their feedback.

Dr Derek Wann, Chair of Board of Studies

The Complete University Guide, 2021
Programme Structure

Our courses are based on a modular system with core and option modules, which offer a wide range of flexibility and choice. In our core modules, we balance the importance of providing you with a good understanding of the basic principles of chemistry, with some opportunities to see the exciting contributions chemistry can make in the modern world. Our option modules enable you to have an input into designing your own degree programme.

Our maths/biology/physics skills training is covered by a Quantitative Skills course (provided for all students in Term 1) paired with courses on Becoming a Professional Chemist and Building a Biological Background.

Year 2 core modules cover structure and bonding, synthesis and spectroscopy. Courses include Biomolecules in Action, Retrosynthetic Analysis, Quantum Mechanics, Catalysis, and Organometallic Chemistry. Practical work is embedded within the Core modules.

Year 3 core modules cover some modern and exciting developments in inorganic, organic and physical chemistry. Courses include Supramolecular and Nanoscale Chemistry, Asymmetric Synthesis and Materials & Nanoparticles, Advanced Separations & Mass Spectrometry, and Bioorganic Chemistry.

Typically, practical work is taught in weekly classes, with students spending a day a week in the lab. At the end of the Summer term, we take a different approach and teach an Integrated Chemistry laboratory class in a block two week period held after the examinations. This allows students to concentrate on their practical work without other distractions.

We provide training in a variety of transferable skills, including group exercises held over a two week block period, allowing students to focus on this activity after examinations.

All students complete an Extended Research Project (at York, one of our partner universities abroad or as part of a year in industry). Alongside the project all Year 4 students do a Literature Review and a taught component. This is an Open Learning Chemistry module, delivered via our Virtual Learning Environment (VLE), where there is a selection of advanced chemistry options to pick from.

For a complete list of our core modules see: www.york.ac.uk/chemistry/undergraduate/courses/modules/
Chemistry Option Module Choices

Students select one option module in Year 2; BSc students select one option module in Year 3, and MChem students select three options in Year 3; MChem students select three open learning options in Year 4.

<table>
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<th>Year 3</th>
<th>Year 4</th>
<th>MChem only options (Spring/Summer)</th>
<th>Open learning options</th>
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<th>Advanced synthesis – from nature to the laboratory</th>
<th>Modelling chemical systems</th>
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<th>Analytical and forensic chemistry</th>
<th>Bioinspired chemistry</th>
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<td>The material world: Chemistry and applications</td>
<td>Reaction intermediates and mechanisms</td>
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<td>Green chemistry and sustainable manufacturing</td>
<td>Atmospheric chemistry</td>
<td>Chemistry and disease</td>
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<td>Dynamic earth: Origins, evolution, biogeochemistry and climate</td>
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<td>Lasers in chemistry</td>
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<td>Genes to proteins</td>
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You said: “I want to spend more time on my project”
We did: “The length of the BSc and MChem projects has increased”

Our general chemistry programme is designed to enable you to learn about all aspects of modern chemistry, but also to give you the opportunity to specialise in an area of your choice.

All our chemistry programmes allow you to choose freely from the option modules available. As you only choose the options for the forthcoming year towards the end of the preceding one, you have ample opportunity to see how your interests develop and select your options accordingly.

Option Modules
Year 2 option
- The material world: Chemistry and applications

Year 3 options
- Reaction intermediates and mechanisms
- MChem only options
- Advanced synthesis – from nature to the laboratory
- Lasers in chemistry

Year 4 option
- Soft matter

The options above are a selection of current options. In order to keep teaching as up-to-date as possible, options are constantly being refreshed.

The modules available cover a wide range of topics. For example, you will be able to learn about the latest advances in materials technology such as liquid crystals, biopolymers and nanomaterials in the The Material World – Chemistry and Applications option. In contrast, the Reaction Intermediates and Mechanisms option looks at how molecules, with lifetimes of only a fraction of a second and which may be present in very low concentrations, may be characterised.

Building on the chemistry of our core modules is a key feature at York. For example, Advanced Synthesis – From Nature to the Laboratory describes how the most important tools in modern organic synthesis can be applied to the preparation of biologically important natural products.

A further recommended option is Lasers in Chemistry which introduces lasers, laser action and properties of lasers. The course explains what types of laser to use for different purposes and how a laser can be modified to improve its performance in a given application. Finally, Soft Matter is an open learning course that develops the principles of self-organisation and self-assembly in soft materials, ranging from liquid crystals to dendrimers and nanoparticles.

Bioinspired Chemistry is also offered so that you may discover how chemists have attempted to design and prepare molecules, which are inspired by the extraordinary chemistry seen in biochemical systems.

For an MChem course, you can choose any of the Year 3 options in Spring/Summer, allowing you to design your own degree programme to reflect your interests.

Programme highlights
- Chemical uses of lasers
- Designer polymers and advanced nanomaterials
- The molecular nature of life
- Synthetic pathways to biologically and industrially important molecules
- Study of novel systems using modern spectroscopic techniques

All our Chemistry undergraduate courses are accredited by the Royal Society of Chemistry.
Chemistry, green principles and sustainable processes

F190 (BSc)
F191 (MChem, year abroad)
F192 (MChem, year in industry)
F193 (MChem, year in York)

These courses allow you to use the chemical knowledge you gain from the core chemistry modules in green chemistry and learn the importance of sustainable technology.

The Green Chemistry and Sustainable Manufacturing option covers the principles of green chemistry, including measuring greenness, cleaner chemical technologies, such as use of supercritical fluids and microwaves are highlighted, as well as biofuels and sustainable energy.

Option Modules

Year 2 option
- Green chemistry and sustainable manufacturing
- Catalysis with green technologies
- Synthesis – from nature to the lab
- Bioinspired chemistry

Year 3 options
- Catalytic rather than stoichiometric chemistry is a key theme of green chemistry. Catalysis with Green Technologies looks at homogeneous and heterogeneous catalysis, as well as biocatalysis. Most biocatalysts are enzymes and the advantages of using cleaner biocatalytic alternatives in the fine chemical industry are explained.
- Of key importance to synthetic and medicinal chemistry is the preparation of enantioselectively enriched products, which is covered in asymmetric catalysis.
- For an MChem course, you can choose any of the 'Year 3 options in Spring/Summer, allowing you to design your own degree programme to reflect your interests.
- This course links, in particular, to the research activities of our internationally leading Green Chemistry Centre

Programme highlights
- Advances in green chemistry
- Catalytic rather than stoichiometric chemistry
- Synthesis – from nature to the lab
- Bioinspired chemistry

Molecular modelling is extensively applied in atmospheric chemistry and Modelling Chemical Systems explores the computer simulation of molecular systems. Using analytical techniques to quantify trace species in the environment is also important and so Analytical and Forensic Chemistry and Environmental Mass Spectrometry are also relevant to this course.

If you choose to take the MChem degree F145, there will be opportunities for project work with research groups in the Department which specialise in particular aspects of environmental chemistry. This includes our internationally-leading Wolfson Atmospheric Chemistry Laboratory.

Chemistry, the atmosphere and the environment

F142 (BSc)
F143 (MChem, year abroad)
F144 (MChem, year in industry)
F145 (MChem, year in York)

This programme will give you the opportunity to learn about the chemical basis of the environment and to understand how we impact upon it.

Option Modules

Year 2 option
- Dynamic earth: Origins, evolution, biogeochemistry and climate

Year 3 options
- Atmospheric chemistry
- Chemical Theory and Computation
- Analytical and forensic chemistry

Year 4 option
- Environmental mass spectrometry

The options above are a selection of current options. In order to keep teaching as up-to-date as possible, options are constantly being refreshed.

For example, Dynamic Earth: Origins, Evolution, Biogeochemistry and Climate sets out to explain how the elements were created and how the Earth came to have its present structure. This module introduces the underlying concepts and analytical techniques that allow the structures and stable isotopic compositions of fossil and sedimentary organic residues to be exploited. Case studies show how records of changes in atmospheric CO₂ concentrations, sea surface and mean air temperatures and relative sea-level can be revealed over geological timescales.

Atmospheric Chemistry explores the chemistry that occurs in the Earth’s atmosphere, and the ways in which this chemistry can be investigated. These two options provide the background, at a chemical level, for many of the critical environmental issues which we face.

The first of its kind in the UK, these laboratories enable experimental and theoretical studies relating to the science of local and global air pollution, stratospheric ozone depletion and climate change.

Each year some of the placements on offer through our ‘year in industry’ scheme relate to environmental work.
This is a course about the chemistry of life. It gives you the opportunity to learn about the chemistry of biological systems, the molecular basis of disease and how to design pharmaceutical products to combat illness.

**Option Modules**

**Year 2 option**
- Genes to proteins
- Chemistry and disease
- MChem only
- Synthesis – from nature to the lab
- Bioinspired chemistry

**Year 3 options**
- Chemistry and disease
- MChem only
- Synthesis – from nature to the lab
- Bioinspired chemistry
- Year 4 option
- Contemporary organic chemistry

The options above are a selection of current options. In order to keep teaching as up-to-date as possible, options are constantly being refreshed.

For example, proteins regulate chemical processes in living systems, and they are constructed in accordance with a code carried within DNA. In the option *Genes to Proteins* you learn how DNA sequences can be rearranged so that, for example, human proteins can be made by bacteria.

Chemistry and Disease describes the development of chemotherapy and our understanding of the way in which drugs interact with the body. A knowledge of drug interaction helps us to minimise side-effects and to increase the efficiency of therapy by targeting drug delivery.

Molecular aspects of complex diseases, including Alzheimer’s disease, are covered, as are modern strategies for drug design, including computational techniques. The target-oriented approach to therapeutic intervention will be illustrated with examples from molecular and cell biology.

Several other option modules, notably *Advanced Synthesis – From Nature to the Lab* (dealing with biosynthesis, and modern synthetic approaches to important molecules, including pharmaceuticals and agrochemicals) and *Bioinspired Chemistry* (showing the way in which biology is increasingly inspiring the design of new chemical systems and materials) are also relevant to the course.

There are major research groups in the Department specialising in the design and synthesis of new pharmaceuticals, in determining the structure, function and mode of operation of molecules in living systems. This includes our Biological Chemistry group, *York Structural Biology Laboratory*, whose research focuses on the fundamental chemical basis for biological and biochemical processes, the use of small molecules to probe cellular biology, software and methods development and on the exploitation of enzymes in biocatalysis.

Many MChem students choose to stay at York for Year 4 of their course. Our ‘year in industry scheme’, is an attractive alternative, since several of the major UK pharmaceutical companies participate in the scheme.

**Programme highlights**

- The role of proteins in nature
- Chemotherapy
- Drug design, delivery and formulations
- The chemistry of enzymes
- Genes and genomes
- Computational modelling

All our Chemistry undergraduate courses are accredited by the Royal Society of Chemistry.

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The University of York is a world-class Russell Group university focused on high-quality research, committed to making the world a better place through its teaching and commitment to civic and international engagement.

*The Complete University Guide, 2021*
## choices for the final year of our MChem programmes

Year 4 of the MChem programme can be spent at the University of York, at one of our partner universities abroad, or in paid and structured industrial training. In each case, the work you do is assessed, and carries 30% of the overall marks for the MChem degree. Our Chemistry courses at York are distinctive in offering this element of choice in the final year.

### Year 4 at...  
**What you’ll do**

<table>
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<tr>
<th>York</th>
<th>At a university abroad</th>
<th>In industry</th>
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| Accompanying the project work, which forms the major part of the programme, is an accompanying open learning module, which introduce some of the most recent and important developments in, for example, analytical, green, materials and organic chemistry. You can choose from the components on offer. The research project, started in October, is normally carried out in the laboratory of your project supervisor. This gives you the opportunity to work within a research group, learn something of the work which others in the group are doing, and use the appropriate equipment and instrumentation. The assessment of your performance in Year 4 is based on:  
- your execution of the project  
- the project report you produce  
- an oral presentation  
The project and the activities which accompany it give you an opportunity to work within a research group, learn something of the work which others in the group are doing, and use the appropriate equipment and instrumentation. The assessment of your performance in Year 4 is based on:  
- your execution of the project  
- the project report you produce  
- an oral presentation |  
Agreements with more than one university, your final choice of university can be left until the middle of Year 3. **Language Requirements**  
Students applying for this course are generally required to have a minimum of GCSE grade B in an appropriate European language.  
- Further training in the language of the country in which you wish to study is also provided by the University during the first three years of the MChem course through the “Languages for All” programme. This is free of charge to Chemistry students registered for our “Year in Europe” courses  
- Note that in Helsinki courses are given in English, so a knowledge of Finnish is not required |  
Around 50 organisations currently participate in our “year in industry” scheme. This differs from the traditional industrial “sandwich” year, with the emphasis very much on carrying out a research project. Typically a minimum of 30 of our students spend a year in industry and we ensure that the nature of the training and project work provide an appropriate challenge.  
**Most of the organisations are UK-based companies**, but some are in other European countries such as The Netherlands, France, Germany and Switzerland. A small number, for example, the Central Science Laboratory of the Department of Environment, Food and Rural Affairs (DEFRA), and the Rutherford Appleton Laboratory, are not industrial organisations in the normally accepted sense.  
**During your year in industry you will have:**  
- A University placement supervisor  
- An industrial supervisor  
- You will all meet at intervals to discuss progress and plans for the rest of the placement  
- The meetings may take place at York or at the company | Over 40 research groups to select from  
**Countries to select from:**  
13 countries to select from  
|  |  |  |  
|---|---|---|---|
| England | France | Germany | Italy |
| Belgium | Finland | Switzerland | Japan |
| Austria | Greece | Singapore | New Zealand |
| The Netherlands | Turkey | Canada | USA |
| Denmark | Sweden | Australia | Canada |
| Spain | Indonesia | China | India |
| Iceland | South Korea | Russia | Brazil |
| Norway | Netherlands | China | Mexico |

### What our students say

- "I wanted to experience what it was like being part of a University research group”  
  - Rachel  
- "My year abroad was a fantastic opportunity to experience a different culture - working at a different university within a research group was very helpful in understanding the research world of chemistry”  
  - Richard  
- “My year in industry was a great opportunity to go out into the real world and see what it was like outside of the university. During my placement I developed lots of transferable skills including team working and project planning”  
  - Sina
Our teaching

Lectures provide the structure of our Chemistry courses and offer a sound base for your independent learning. The size of lectures varies from 200 to as few as 10 for some of the option modules. Lectures last for 50 minutes and presentations range from the more traditional ‘chalk and talk’ to the use of digital presentations.

Our smallest group teaching sessions are called tutorials. They are usually one hour in length with up to 5 students and a college tutor who is a specialist in the subject. Tutorials are arranged by colleges and are a great opportunity to explore course material in much greater depth than lectures allow. Tutorials aim to clarify points raised in lectures, to engage in problem solving and to allow our students to explore and discuss particular aspects of their Chemistry course. They also help students to develop skills to learn independently, in the ways most suited to them.

Our practical course is designed to complement your theoretical studies and constitutes most of the continuously assessed parts of your degree. You will carry out a wide variety of experiments, from the synthesis of target compounds to a crime-scene investigation using forensic methodology. It gives you experience in handling and interpreting experimental data and demonstrates how principles taught in lecture courses can be put to use. Later in the course more emphasis is given to the planning of experiments. Wherever possible, we try to include contexts to emphasise the relevance of the experimental work in our everyday lives.

Our teaching undergoes a constant process of refinement to keep courses as fresh and up to date as possible.

Easing the transition:
In Year 1, students typically carry out a different experiment each week and they record their results on practical scripts which are graded together with any samples they have prepared/isolated. Written feedback is provided and a debriefing is provided by a demonstrator. To give our students time to adjust to the practical course, in the first few weeks, the marks are not taken into account for assessment purposes.

Distinctively, for all our BSc and MChem courses, our students undertake an extended final year project in a research area of their choice. Our MChem students carry out their project within a university research group (at York or abroad, working alongside PhD students) or in the Chemical Industry. Students on industrial placement carry out research work which is relevant to the company for which they work.

Workshops allow groups of students to explore a particular Chemistry topic, usually over one to two hours. In year one, typically up to 25 chemists in the same teaching college will be divided into small groups to work through problem sheets, directed by a college tutor who is a specialist in the subject. The structure of workshops varies, being tailored to the particular topic, but everyone is expected to contribute actively to the discussions, and this is an opportunity for our students to develop communication, analytical and team-working skills.

A typical week

On Wednesday afternoon I do private study... I also do tap dancing and swimming in the evening... I also volunteer to work with a club for disabled kids

Amy

Students typically spend 9 or 10 hours on their practical work over Monday/Tuesday - up to around 6 hours in the laboratory and 3-4 hours on associated discussions or workshops and time spent writing up scripts

Typically a couple of 50 minutes lectures (held in the Chemistry Department). The afternoon is free for sports and hobbies

Typically three 50 minute lectures and a two hour college workshop (all held in the Chemistry Department)

Typically three 50 minute lectures and a one hour college tutorial (all held in the Chemistry Department)

An opportunity for further private study and for enjoying university social life, as well as exploring York by day or night.

Lizzie

You get loads of feedback from the tutorials to help deepen your understanding of each lecture course

Study Skills
Our Chemistry courses provide opportunities for developing study skills. Study skills not only help you to learn, but they are skills you need in order to make effective use of your knowledge

Overview of Activities
A typical pattern of work for a first year Chemistry at York involves the following:

- spending 7 or 8 hours attending lectures
- 9 or 10 hours on practical works (including associated discussions or workshops and time spent writing up scripts)
- 1 hour attending a tutorial with perhaps 8 hours spent in reading and preparing written work for it
- on average, 2 - 3 hours preparing for workshops.

This still leaves a significant amount of time to follow-up on each lecture and for private reading. Each term involves an average working week of around 40 hours

University of York Department of Chemistry www.york.ac.uk/chemistry Telephone: 01904 322545 University of York Department of Chemistry www.york.ac.uk/chemistry Telephone: 01904 322545
One major objective is to undertake the highest quality fundamental and applied research. York has a distinctive interdisciplinary structure founded on strong areas of core chemistry.

Development of analytical methods, principally centred on separations science and mass spectrometry, and their application in biomolecular and environmental research

Research centre which aims to promote the development and implementation of green and sustainable chemistry and related technologies into new products and processes

Methods to determine, analyse and exploit the structure of proteins and their complexes with other molecules. The research contributes powerful insights into biological function and finds application in drug discovery and exploitation of enzymes as biocatalysts

Strengths include natural product synthesis, catalysis and mechanism, asymmetric synthesis, synthetic methodology, radical chemistry and combinatorial chemistry

Major themes include chirality, device materials, super- and supra-molecular liquid crystals, polymers and dendrimers, data storage materials, liquid crystal nanoparticles, lyotropics, bent-core mesogens and metallo-supramolecular organic frameworks, halogen bonding, device demanufacture, electroluminescent materials, gel materials as phantoms for X-ray treatment of tumours, and biomaterials

In 2020, a new building to house a cryo electron microscope, as well as facilities for protein crystallography and high-field NMR spectroscopy, was created. This ensures our researchers have access to the latest, state-of-the-art facilities for determining protein structure.

In 2013, our Wolfson Atmospheric Chemistry Laboratories, the UK’s first laboratory building for atmospheric chemistry, was completed.

In 2012, the Centre for Hyperpolarisation in MRI (CHyM), a multi-disciplinary centre of the Chemistry, Psychology and Biology departments, was built on the Science Park. CHyM’s principal objective is to propel the technological developments in hyperpolarisation through to clinical practice and disease management.

94% of our research activity rated ‘world-leading’ or ‘internationally excellent’ REF Assessment, 2014
We provide a Teaching Package to all students starting on one of our Chemistry courses.

The pack contains:

- A copy of our Year 1 recommended textbook, Chemistry
- A laboratory coat
- A full set of laboratory equipment including a comprehensive set of Quickfit glassware, test tubes, lab beakers, graduated cylinders, conical flasks and volumetric flasks
- Safety spectacles
- A Molecular Model Set to learn about molecular shape and bonding in organic and inorganic molecules
- Affiliate membership of the RSC for one year. Membership of the RSC, the learned society and professional body for the chemical sciences, will enable you to keep up to date with the chemical sciences and support your subject and profession
- A Chemistry Data Book, which contains a selection of information including physical and chemical properties, mathematical data, units and constants
- A series of detailed laboratory scripts are provided in advance of each of the practical courses
- The Royal Society of Chemistry Undergraduate Skills Record for you to complete to help keep track of the skills you develop while at York

The Library is my favourite place to study on campus. There are zones for all types of studying – from Silent to Quiet to Studious Buzz. You can also book study rooms for yourself or a group.

Lily, MChem Chemistry
As part of my master’s degree I went into schools and talked to young people about chemistry... I now support chemistry teachers and young people studying chemistry.

Jo (Royal Society of Chemistry)

Following a year in industry at GlaxoSmithKline, I now put together data packages for health authorities for product licences.

Siân (Reckitt-Benckiser)

My degree helped me specialise in areas of medicinal and biological chemistry, which has lead me to my current position as an associate scientist.

Sean (Vernalis)

A 2019 report, by the International Council of Chemical Associations (ICCA), showed the Chemical Industry contributes around $5.7 trillion to global GDP and supports 120 million jobs worldwide.

Career Opportunities for Chemists

The sheer diversity of options for chemistry graduates can take many by surprise. The demand for chemistry teachers has never been greater, and the profession promises the opportunity to communicate a subject that you love to the next generation of scientists.

Working for industry can mean much more than producing pharmaceuticals or feedstock chemicals. Companies that make food, nanomaterials and medical devices, all need chemists. The burgeoning science of nanotechnology, which promises to revolutionise fields as diverse as electronics and energy production, devices, all need chemists. The burgeoning science of nanotechnology, which promises to revolutionise fields as diverse as electronics and energy production, devices, all need chemists.

The Complete University Guide, 2021

An innovative series of employability activities offers all students access to volunteering, internships and study abroad options to help build their career.

We pride ourselves on the quality of our whole degree programmes, with chemical skills at the heart of that, but we have not forgotten about other skills that help to lead our students into a job.

Chair of our Board of Studies

As part of our Chemistry degree programmes we show a commitment to developing our students employability skills; we have embedded this in our courses as illustrated by some examples.
Explore the organic chemistry behind perfume, medicine, brewing and sport from one of the UK’s leading universities

Join our Exploring Everyday Mooc for free

www.futurelearn.com/courses/everyday-chemistry