



Join Us

Entry requirements

SQA Highers:

BBBB (including two sciences / maths) or
BBB/ABC (all science / maths) or
ABBB (at least one science / maths).
Students in the Mathematical and most of
the Physical sciences should have Higher
mathematics.

A Levels:

BBC (including two sciences / maths) or
BCC (all sciences / maths) or
BBB (at least one science / maths).

The University offers some exemption from
first year study for applicants with exceptional
grades.

Find out more

Enquiries specific to undergraduate study in
Chemistry contact:
phone: 0141 330 8618
e-mail: ug-enquiries@chem.gla.ac.uk
www.glasgow.ac.uk/chemistry/

The Science Faculties Support Unit

information and support for UCAS applicants,
undergraduate students and staff in Science.
The Principal Adviser of Studies is based in this
office which is located on level 3 of the Boyd
Orr Building.

The office is open 9-5, Monday - Friday.
[www.glasgow.ac.uk/services/sciencefaculties
supportunit/](http://www.glasgow.ac.uk/services/sciencefaculties/supportunit/)

Visit one of our open days
(September, March and June each year).



University
of Glasgow

Department
of Chemistry

The central science

Chemistry

www.glasgow.ac.uk/chemistry

Chemistry at Glasgow University since 1747

Four Nobel Prize winners, distinguished achievements, superb research environment with world leading research groups and facilities.



Glasgow University was founded in 1451. A Department of Chemistry has existed at the University of Glasgow since 1747, when William Cullen was granted the sum of £30 to equip a lab for the teaching of chemistry. Since that date, four Nobel Prize winners have passed through the doors of the Department - awarded for their pioneering works in the fields of x-ray crystallography, elemental discovery, natural product chemistry and drug research. The Department still maintains this record of distinguished achievements, having a superb research environment with world leading research groups and facilities. Currently, ground breaking research is being carried out in areas of chemistry such as; nanotechnology, medicinal chemistry and drug discovery, the production of alternative and renewable fuels and innovative methods of hydrogen storage for use in future power generation.

Why Chemistry?

Chemistry is often referred to as "the central science" because it is inextricably linked with other scientific disciplines such as biology, medicine, physics and the earth sciences.

Chemistry is a science with a well-developed theory base, which is central to modern life and which continues to make advances in, for example, new materials, antibiotics, semiconductors and trace analysis. It is the science of molecules and materials:

- how to make them
- how they react and interact
- how to detect, separate and identify them
- how to find their structures and shapes.

"Everybody's so friendly. The campus is great. The halls are great. The city centre is amazing – you have to come and experience it for yourself"
Sophie Watkinson, Chemistry

Why Chemistry at the University of Glasgow?

There are many reasons for choosing our successful department as your place of study, including our standards in teaching and research, and our flexible Honours programmes, studying degrees in the following subjects;

Chemistry
Chemistry with Medicinal Chemistry
Chemistry with Forensic Studies
Chemical Physics
Chemistry and Mathematics/Chemistry and Applied Mathematics
Biology and Chemistry
Environmental Chemistry

Independent reviews of our teaching have consistently given the highest ratings. In the last assessment by the Scottish Funding Council, we received a grade of 'excellent' for our teaching standards.

Our department is part of the Scottish research pooling initiative, ScotCHEM.

This is a major collaborative venture for the sharing and enhancement of resources for chemistry research in Scotland. Our strong research base has a direct impact on our teaching. We welcome applications from the UK and overseas to our PhD programme, in which the Graduate School plays a key role. There is a wide variety of topics from which to choose at the cutting edge of Chemistry, many involving collaboration with industry and other research organisations in the UK and abroad.

We help you to achieve success after you have graduated by offering employability and professional development training to all our students. As part of our MSci degree programme, many of our students also obtain year long placements between third and fourth years. Students may be placed in industry or travel abroad to work in research labs at other universities.

"My course has amazing teaching, fantastic facilities and the experience is one I am never going to forget."
Julia Kennedy, Chemical Physics

Today, the University of Glasgow is one of the top 100 universities in the world with an international reputation for its research and teaching and an important role in the cultural and commercial life of the country.



"The lecturers, not only are they interesting but they know what they're on about because they have all the background research. They're the top people in their field. There's some great support out there"
James Taylor, Chemistry

Examples of industrial placements:
Proctor and Gamble, Astra Zeneca
Cadbury Schweppes, Bayer Crop Science, Glaxo Smith Kline,
Fujifilm Imaging Colourants and Reckitt Benckiser

Examples of University research labs:
Bergen, Melbourne, Barcelona, Tokyo, Prague and Lille.

"I've really enjoyed myself. It offers a real challenge but at the same time, you feel that you are achieving something academically. To have a science degree from Glasgow is something significant"
Sophie Watkinson, Chemistry

Our undergraduate degree programmes are varied and flexible.

Admission is initially into the Faculties of Science. This system allows you to explore a range of subjects in addition to chemistry itself before specialisation – a great way of broadening your scientific horizons.

What are my career prospects?

A chemistry degree provides not only knowledge of the subject but also training in taking decisions, analysis of problems, communication, calculations, use of computers, recognition of patterns, abstract ideas and symbolism, precision and awareness of risks. Our graduates are employed as chemists working in research, process development or analysis, as well as in management, marketing, environmental control, teaching, patents or finance.

"Employers love Glasgow. Employers love Chemistry." And on the subject of employment....
"I know that I have lots of choices because I have a degree in chemistry"
Claire Waterston, Chemistry

www.glasgow.ac.uk/chemistry

Chemistry at Glasgow Timeline

In 1747, just one year after the Battle of Culloden, the University found itself with a surplus of £30 saved from the salary of a new Professor of Oriental Languages who had yet to take up his appointment. William Cullen, later to become Professor of Medicine in the University, had been pressing Faculty and Senate for funds to equip a laboratory for the teaching of Chemistry as part of his reorganisation of the Medical Faculty.

He was granted this sum, together with a further £22 later that year, and the first lectureship in chemistry was established. It appears that his lectures and practical demonstrations were very popular, though he was later to complain "...that he had expended a much greater sum himself in purchasing cucurbits, boltheads and a great many other instruments..." (Senate minutes, June 1749).

Cullen was succeeded in 1756 by his pupil, Joseph Black, already famous for his Edinburgh thesis on Magnesia Alba.

In 1762 Black announced from Glasgow his doctrine of Latent Heat. One interested person was the youthful James Watt who first measured, in the Department, the latent heat of steam. Chemistry at Glasgow thus played a notable role in the Industrial Revolution.

Black's pupil, Charles Hope, gave in 1787 the first Chemistry course in a British university based on the revolutionary ideas of Lavoisier, whose laboratory he had attended in Paris.

The first professor, Thomas Thomson, a staunch supporter of Dalton's new atomic theory, set up the first University course in practical chemistry for undergraduates and built the once famous Shuttle Street laboratory off High Street in Glasgow in 1831

Thomas Thomson At this time the Scottish Universities, particularly Glasgow and Edinburgh, provided a high proportion of the leading chemists in the UK and the Empire. The Chemical Society, founded in 1841, chose Glasgow graduate Thomas Graham as its first president. Since then many other Glasgow graduates have held this position and have thus headed the profession. Two Glasgow graduates, Sir William Ramsay and Lord Todd, have been awarded the Nobel Prize in Chemistry, and two of our former staff, Frederick Soddy and Sir Derek Barton, have also gained this supreme award.

In 1953, Henry How (assistant to Thomas Anderson) conceived the idea of functional group modification in natural products (making the quaternary ammonium salt of morphine) and thereby "... unwittingly set in motion a sequence of events which ultimately transformed the process of drug discovery" (Walter Sneider, Drug Discovery: the evolution of modern medicines, Wiley, 1985).

The Department as we know it began to take shape about 1900, when the sections of organic and physical chemistry (the Gardiner chair) were added.

From 1904-14 Frederick Soddy was the Lecturer in Physical Chemistry. During this time he did the work for which he was awarded the 1921 Nobel Prize in Chemistry "for his contributions to our knowledge of the chemistry of radioactive substances, and his investigations into the origin and nature of isotopes".

1936 saw construction begin on the new Institute of Chemistry building which when it opened was the largest purpose built chemistry building in the UK.

The Gardiner Professor of Chemistry from 1942-70 was J. Monteith Robertson (1900-1989), a pioneer in the field of X-ray crystallography and the founder of organic crystallography.

Sir Derek Barton [blog] was Regius Professor from 1955-57, and in 1969 received the Nobel Prize in Chemistry (with O. Hassel) "for their contributions to the development of the concept of conformation and its application in chemistry".

www.glasgow.ac.uk/chemistry/dept/history