



University of  
**Strathclyde**  
Glasgow

DEPARTMENT OF PURE & APPLIED CHEMISTRY

# Chemistry with Teaching

[www.strath.ac.uk/science/chemistry/](http://www.strath.ac.uk/science/chemistry/)



# Achieve great things and ignite greatness in others, for generations to come...

Inspirational chemistry teachers have the potential to touch many lives. Their infectious enthusiasm for their subject and adept knowledge can be the catalysts that encourage their pupils to follow career paths and achieve successes in science that may otherwise have remained untapped.

Most of us can remember at least one great teacher, who truly inspired us and gave us the confidence to succeed. They could even have sparked an enthusiasm for a subject that you previously hadn't enjoyed.

A good grasp of chemistry can help to open doors to many possibilities....not only to pursue chemistry or applications of chemistry within university or industry; but also to follow vital social professions such as medicine, dentistry, pharmacy, forensic science, chemical engineering, and numerous biological sciences.

As a chemistry teacher, you have the potential to inspire that next step into the fascinating world of science for generations of pupils, with rippling effects that can touch many lives.

MChem Chemistry with Teaching at the University of Strathclyde is the most advanced combined qualification for intending teachers of chemistry in the UK.

The course is a powerful combination of a full honours MChem Chemistry degree along with a Professional Graduate Diploma in Education (Secondary) contained within the programme. It has dual accreditation from both the Royal Society of Chemistry and the General Teaching Council for Scotland.

## Did you know?

MChem Chemistry with Teaching at the University of Strathclyde is the most advanced combined qualification for intending teachers of chemistry in the UK.



Qualify for a career in secondary education and the chemical industry, with dual professional accreditation.

## How is the course structured?

The MChem Chemistry with Teaching course is a five year Masters programme (or four years for entrants with three appropriate A-levels or three Advanced Highers).

Years 1 to 3 are spent in the Department of Pure and Applied Chemistry at the University of Strathclyde alongside students on other chemistry courses, covering all of the important areas of this science.

Year 4 is spent undertaking the initial teacher education component in Strathclyde's School of Education and participating in teaching practice in schools.

The final year is a return to the Department of Pure and Applied Chemistry to complete chemistry learning to Master of Chemistry level.

A research project is undertaken in the final year, and for MChem Chemistry with Teaching students, this project can be related to the delivery of chemistry within education. For example, the development of practical experiments for use in schools, or practical demonstrations for school groups visiting universities. Students may also be able to visit schools and interact with pupils as part of their project work.

By this stage in their course, students will already have completed their initial teacher education course and so will have a special insight into the challenges facing chemistry teachers and how they can enhance current educational practice.

Graduates from this course have **dual professional accreditation**, so they can greatly benefit from being able to choose between careers in secondary education or careers in the chemical industry – they will be professionally qualified for both. It is also likely that graduates could move between school and industry, or vice versa, at a later stage of their careers. This creates a new type of educational dynamic in which advances in chemistry teaching become closely linked to advances in the commercial and social applications of chemistry.

Graduates from this course are guaranteed a one year post in a secondary school on full salary as part of the Teacher Induction Scheme. In addition, they may also consider careers in

- Industrial chemistry
- Postgraduate research
- A broad spectrum of careers requiring scientific skills.



## What do our students say?

**“** I would definitely recommend Strathclyde University to anyone who is thinking of studying chemistry. You learn from some of the most experienced individuals in their field, study many different branches of chemistry and gain invaluable experience of laboratory work undertaking many hours of practical work within an academic setting. In addition, to anyone who wants to become a chemistry teacher you are able to gain your PGDE qualification alongside your MChem.”  
**Lauren McShannon**

**“** I chose to study at Strathclyde because of the reputation it has in the scientific community. It has given me the best of both worlds! I was sure I wanted to enter the teaching profession, however, I now have a multitude of options in various fields due to the wide ranging content covered in this course. Also from a teaching perspective, I knew that Strathclyde is the biggest and, in my opinion, best provider of initial teacher education in the country.”  
**Paige Cawley**

### Did you know?

The University of Strathclyde has won 7 Times Higher Education awards in 7 years.



## How will you spend your time?

As a chemistry student, you will have the opportunity to enjoy lots of time in the laboratory honing your chemistry skills. In addition to this, you will attend lectures, delivered by nationally and internationally recognised staff. These will be complemented by computer-assisted learning and problem-solving in small-group tutorials.

**Year 1:** The fundamentals of Chemistry, Biology or Physics, Mathematics and your choice of elective from throughout the University. Extensive practical work reinforces the lecture material and helps to develop skills in communication, teamwork and the ability to work safely. You will spend one afternoon per week in the laboratory.

**Years 2 & 3:** The core discipline of Chemistry is taught in more depth along with your choice of chemistry specialisation and again, your choice of elective subject. You will spend four afternoons per week in the laboratory. Typical studies revolve around the design of drugs or high-tech materials, environmental chemistry, spectroscopy, the uses of the transition metals, organic synthesis and the control of industrial chemical processes.



**Year 4:** Initial teacher education via our School of Education, including teaching practice in schools.

**Year 5:** Specialised taught classes with a large part of your time devoted to a practical research project of your choice, covering educational approaches to chemistry.

### How will you be assessed?

Assessment is by class test, end-of-semester exams and continual assessment in laboratory classes. In year 4, assessment is by a combination of written assignments and performance on school experience placements.



# Studying, working and living in Glasgow

The University of Strathclyde campus is situated in the heart of Glasgow, a vibrant, multi-cultural city with an exciting social scene, great transport links, and many part-time employment prospects.

Glasgow has a long reputation as Scotland's largest, friendliest and most cosmopolitan city. You will find beautiful architecture around every corner and activities to suit every taste.

You can enjoy a vast array of places to eat out and shop, from high street names to off-beat boutiques; and revel in legendary nightlife, with a huge selection of bars and clubs to choose from. Glasgow is home to an eclectic mix of cutting-edge music, with over 100 gigs taking place every week.

There are more than 20 incredible museums, galleries and science centres scattered across the city, and best of all, most of them are completely free!

The city is also home to numerous theatres, cinemas, Scottish Opera, BBC Scottish Symphony Orchestra, Scottish Royal Ballet, and an abundance of sporting stadiums and events; as well as vibrant festivals and pop up events throughout the year.

"Glasgow" means "dear green place", and with over 90 parks and gardens open to the public across the city, it is easy to see why. With the spectacular scenery of the highlands and islands less than one hour from the city centre and the 'bonny banks' of Loch Lomond just 40 minutes away; you're never far from the breath taking vistas of Scotland's great outdoors.



**"It is the supreme art of the teacher to awaken joy in creative expression and knowledge."** Albert Einstein

## Entry Requirements for MChem Chemistry with Teaching (UCAS Code F1XC)

### Applicants with Scottish Qualifications

**First-year entry:** SQA Highers ABBB to include Chemistry B, Maths B, English\*. Alternative Higher pass grades in Chemistry or Maths are acceptable in combination with a pass in the subject at SQA Advanced Higher level.

**Second-year entry:** SQA Advanced Highers ABB to include Chemistry, Maths and either Biology or Physics. SQA Higher English\* is also required.

### Applicants with A-Levels

**First-year entry:** GCE A-levels ABB to include Chemistry and either Maths or Biology or Physics. GCSE passes in English Language\* and English Literature\* are also required.

**Second-year entry:** GCE A-levels: ABB to include Chemistry, Maths and either Biology or Physics. GCSE passes in English Language\* and English Literature\* are also required.

We are a truly international university, and welcome students to apply for our courses from around the world. Other European and International qualifications covering the subjects above are acceptable provided

English language qualifications acceptable to the General Teaching Council for Scotland are included.\*

If you narrowly miss any of the qualification criteria above for first or second year entry, you have alternative qualifications, or are not applying as a recent school leaver, then please contact us for an individual assessment of your situation.

All applications should be via UCAS. UCAS personal statements and references will also be taken into account with offer decisions.

\* Entry without the appropriate English qualifications is possible, but these will have to be gained outside the University at some stage during the first three years of the course. Otherwise, students will be obliged to transfer to our MChem Chemistry course (UCAS Code F103) at the end of year 3 and not undertake the initial teacher education component.

Entry requirements are correct at the time of printing and may be subject to change.



Department of Pure and Applied Chemistry  
University of Strathclyde  
Thomas Graham Building  
295 Cathedral Street  
Glasgow G1 1XL

t: 0141 548 2282  
[chemistry.enquiry@strath.ac.uk](mailto:chemistry.enquiry@strath.ac.uk)

Roslyn Nimmo  
t: 0141 548 2300  
[roslyn.nimmo@strath.ac.uk](mailto:roslyn.nimmo@strath.ac.uk)

Ashleigh Logue  
t: 0141 548 4189  
[Ashleigh.logue@strath.ac.uk](mailto:Ashleigh.logue@strath.ac.uk)

Find out more: [www.strath.ac.uk/science/chemistry/](http://www.strath.ac.uk/science/chemistry/)  
eProspectus: [www.strath.ac.uk/studywithus/prospectus/](http://www.strath.ac.uk/studywithus/prospectus/)

 [@StrathclydeChemistry](#)

 [@StrathChem](#)

 [Strathclyde Chemistry](#)

 [@StrathclydeChemistry](#)

---

the place of useful learning  
[www.strath.ac.uk](http://www.strath.ac.uk)  
University of Strathclyde Glasgow

The University of Strathclyde is a charitable body,  
registered in Scotland, with registration number SC015263



Athena  
Swan  
Silver Award



1 H hydrogen [1.007, 1.009]	2 He helium [4.002, 4.003]
3 Li lithium [6.938, 6.997]	4 Be beryllium 9.012
11 Na sodium 22.99	12 Mg magnesium [24.30, 24.31]
19 K potassium 39.10	20 Ca calcium 40.08
37 Rb rubidium 85.47	38 Sr strontium 87.62
55 Cs caesium 132.9	56 Ba barium 137.3
87 Fr francium	88 Ra radium
	21 Sc scandium 44.96
	39 Y yttrium 88.91
	57-71 lanthanoids
	89-103 actinoids