University of Strathclyde Glasgow

DEPARTMENT OF PURE & APPLIED CHEMISTRY

Industrial Placement Scheme

www.strath.ac.uk/studywithus/subjects/chemistry/industrialplacementscheme/

Our Industrial Placement Scheme is one of the largest and longest established in Europe. We place students with over 30 companies, across all branches of the chemical industry, every year.

Both employers and students have repeatedly hailed the availability of our integrated Industrial Placements as one of the most valuable aspects of our Chemistry degrees. These placements help to arm our students with the hands on skills, competencies and experience that make them stand out from the crowd following graduation.

We work with a wide range of businesses, including:

- small and medium sized enterprises
- multi-nationals
- government organisations
- charities
- universities
- research establishments

Placing Students

The Department of Pure and Applied Chemistry has a Placement team who know the students, the companies that we work with and the demands of the placements. Students are aligned with the most suitable opportunities that are consistent with their subject specialisation and interest. The Department and the University careers service are on hand at each step to help students find the most appropriate placement, with industrial partners having the final say on which students they take on.

Students are taken on under normal terms and conditions of employment and the student fits in with the normal work practices of the employer.

RSC | Advancing the Chemical Sciences

IChemE Institution of Chemical Engineers

gtc SCOTLAND

The Chartered Society of Forensic Sciences

The placement

The placement is undertaken during year 4 of an MChem degree course and is compulsory for the following courses:

- Chemistry (MChem)
- Forensic & Analytical Chemistry (MChem)
- Chemistry with Drug Discovery (MChem)

Students have the opportunity to pursue either a paid industrial placement with one of our many highly regarded industry partners (including companies such as Sosei Heptares, Astra Zeneca, Charles River, GSK and Pfizer), or an in-house research project as part of our Chemistry Clinic during Year 4 of their studies.

Watch our Chemistry Clinic video.

Our MChem Chemistry with Teaching students undertake the education component of their course in Year 4, including teaching practice in schools. Our MSci Applied Chemistry & Chemical Engineering students undertake an engineering design project in Year 4.

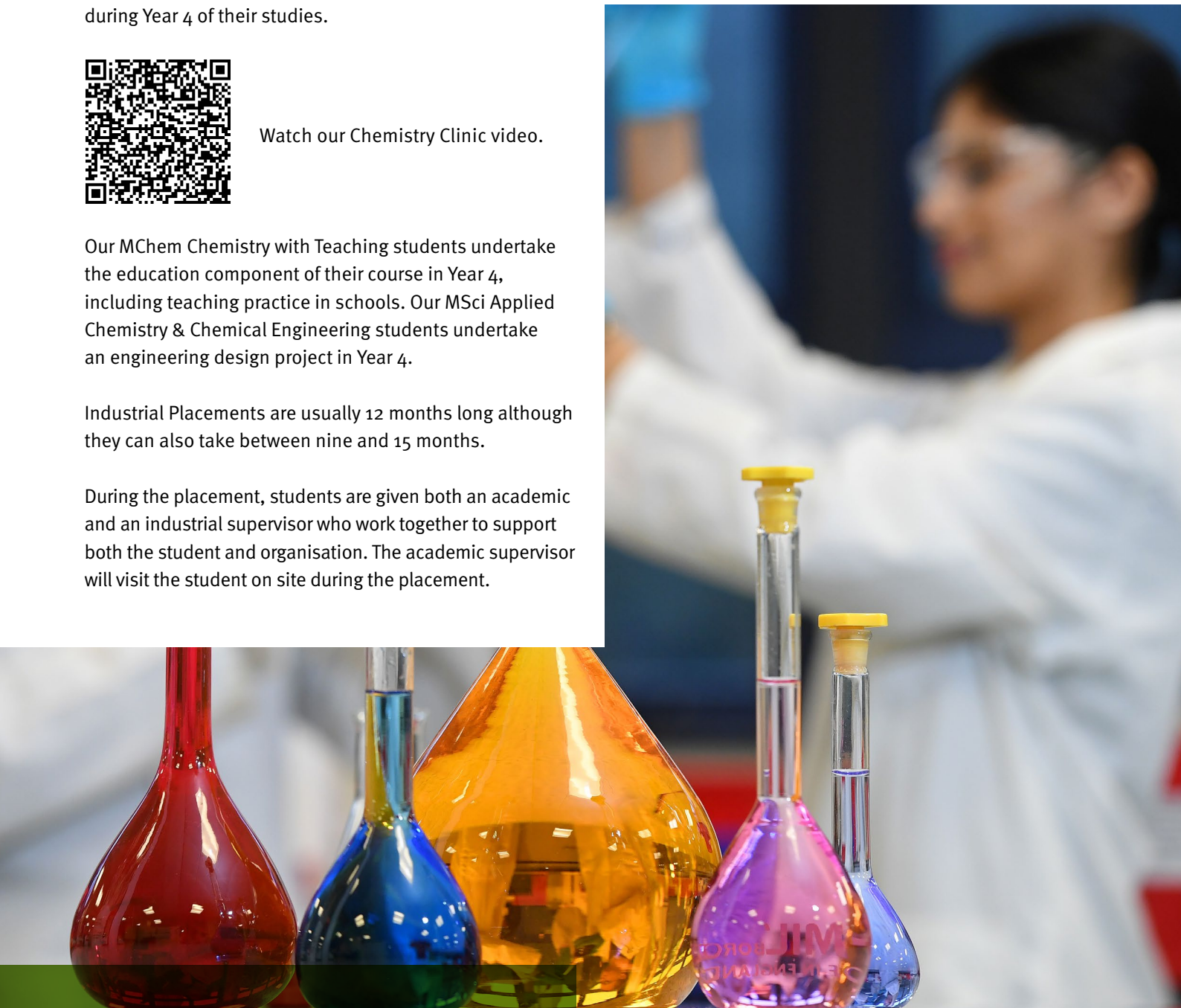
Industrial Placements are usually 12 months long although they can also take between nine and 15 months.

During the placement, students are given both an academic and an industrial supervisor who work together to support both the student and organisation. The academic supervisor will visit the student on site during the placement.

Preparing from day one

Students work towards their placement from the first day of their course. In year 2, they'll submit a CV along with their areas of interest with a view to securing a suitable position.

Before applying, we help students write their CVs and prepare for interviews. We also help them prepare for activities they might be likely to do on placement, along with the placement itself.



What do our students say?

Simran Judge

(2021 graduate)
MChem Forensic and Analytical Chemistry

I completed an industrial placement in the Drug Metabolism and Pharmacokinetic (DMPK) department at GlaxoSmithKline in Stevenage. I thoroughly enjoyed my placement year in the pharmaceutical industry which opened my eyes to the world of bioanalysis, where I gained hands on laboratory experience through routinely working with LC-MS systems to analyse blood and urine samples in pharmacokinetic studies.

Having worked in the former Quantitative Pharmacology department I had the opportunity to learn about biological systems while applying my analytical chemistry knowledge in the laboratory, and enhance my data analysis skills.

I had a role to play in In Vitro assays such as stability and cellular concentrations allowing me to attend project meetings to understand how the data generated was applied to further research. During my time on placement I was assigned a project which involved method development and validation of a new low flow LC-MS system which allowed me to independently conduct practical work and present my findings to the department.

My industrial placement year was definitely one of my most valuable years at university, as I was able to make new friends and contacts in the pharmaceutical industry and gain a wealth of work experience to apply to my final year at university and beyond.

I was assigned a supervisor to guide me in the right direction when applying for placements. My supervisor was very helpful during my application process in terms of checking my CV and cover letter, and also when preparing for an interview. I was fortunate to have been directed towards applying to the GSK industrial placement which was the first placement I applied for and secured following an online application, online test, and face to face technical/competency-based interview.

Analytical practical work and modules studied from 1st - 3rd Year formed the basis of my understanding of analytical work in the pharmaceutical industry.

The process of applying to industrial placements and experiencing the application and interview process is something that is very useful when applying to graduate positions jobs. The Placement year is a fantastic year to talk about in applications and interviews as it's a year full of a variety of experiences. Working for 12 months massively prepared me for the world of work.

Naomi MacKay

(2016 graduate)
MChem Chemistry

During my 5 year course, I spent one year on industrial placement at GSK. This experience was invaluable, giving me good insight into what a future career would be like, what it was like to work independently and how to handle the pace of working life. In my first post-university job, my experience from industrial placement saw me "hit the ground running" and earned me an early promotion!

Roxanne Motaghian

(2021 graduate)
MChem Chemistry

In fourth year, I was on industrial placement with Bayer AG CropScience in Frankfurt. During my time in Germany I worked with a small group of scientists in a research laboratory making herbicides and safeners for crops. My role involved synthesising, isolating, purifying and characterising small organic molecules.

I have always wanted to study or work abroad to experience different walks of life and culture. In Germany, I was able to do something I loved and travel through Europe at the same time. This year was key in developing my chemistry skills because it pulled together all of my knowledge and applied it to real-life lab work.

At first it was quite daunting applying to professional jobs because I had been a student for so long, but as soon as I started getting interviews it felt really rewarding. The interviews were tough but Strathclyde gave me all the knowledge I would need to impress my interviewers.

The support from chemistry staff to apply for positions and do mock interviews was very helpful and useful. I felt more comfortable applying to graduate jobs because I had interview experience and know how to showcase my technical, practical and transferable skills.

Sam Russell

2020 Graduate

I completed my industrial placement at Cambrex in Edinburgh where I worked within the solid state screening team. My role involved investigating and understanding the physical properties of active pharmaceutical ingredients (APIs) to obtain a developable solid form and improve API stability, solubility and ultimately bioavailability.

During my time within the pharmaceutical industry I gained invaluable experience working both independently and as part of a team within a professional environment. I worked on a number of projects over the year which involved a balance between both practical laboratory work and office based data analysis. Through this I gained experience independently planning my own work to meet project deadlines and presenting to clients through weekly teleconferences and compiling reports. The placement year is incredibly useful and has allowed me to understand how to apply the skills I have gained so far during my degree into real working situations.

The application process was made very easy with continuous support from the chemistry department staff giving advice with CV and cover letter writing and helping with interview preparation. Having this experience during university allows students to gain an insight into working in industry and to develop connections which will be a huge advantage when it comes to applying to graduate jobs.

Andrew Nolan

2020 Graduate

I was fortunate to secure an industrial placement with Bayer AG CropScience in Frankfurt. This was a synthetic placement with the aim of synthesising, isolating, purifying and characterising small organic molecules which have potential for use as novel herbicides.

Initially I found the prospect of living abroad daunting, but the experience gained was invaluable. I would say that the placement year has been crucial to both my personal and professional development. In terms of personal development, I became more independent, got to explore a lot of southern Germany and made a lot of new friends. As for professional development it was the opportunity to put theory into practice, work as part of an international team and gain an insight to the R&D industry.

Strathclyde was very supportive and helpful in getting a placement as they prepared me by giving me mock interviews and finessing my CV. It's difficult to highlight the significance of the industrial placement year in a paragraph but overall the skills I learned from Bayer armed me with the skills necessary to succeed in industry and helped me to secure a graduate job with Reckitt Benckiser in R&D operations. Finally, I'd like to thank Strathclyde for providing me with a top-class education which gave me all of these opportunities and would highly recommend the university to anyone thinking of studying chemistry.

Victoria Thomson

(2022 graduate)
MChem Forensic & Analytical Chemistry

I undertook my Industrial Placement with Pfizer Ireland in Cork and worked as an Associate Scientist within the Process Monitoring Automation and Control (PMAC) team. Our team supported multiple Pfizer sites across many different time zones. I was fortunate to work on a variety different projects across many disciplines including but not limited to statistical analysis [multivariate data analysis (MVDA)], SOP testing and small-scale testing prior to plant production. One project I worked on needed to stop a process at an exact pH using computer-based models. First in the laboratory at a small scale but then being run in the actual production plant which made me proud to have been involved in the project.

Living in Cork for the year was an amazing experience, getting to see and do as much as possible around the amazing sites throughout Ireland and Cork city itself. With many pubs and adventures to go on the possibilities are endless. I set myself a challenge to do at least one tourist related thing each weekend; visit a wildlife park, museums and a film festival among many other things. During the process of finding a placement I was supported by an Industrial Placement Advisor and my Personal Development Advisor (PDA).

I feel that having this experience working in one of the biggest pharmaceutical companies in the world can be a huge advantage when it comes to finding a job after graduation. The placement gives you a real understanding of how the chemistry learned on the course is put into place within a company. You learn so much more than just how to do the job. There are lots of opportunities to work with so many people from a variety of countries and chemistry backgrounds from all levels in the company. The whole experience from the placement to living somewhere new is so valuable and something that I won't forget. Everyone should try and complete a placement as you never know what doors it will open further down the line.

What do Industrial Placement Employers say?

Iain Love

Head of Chromatographic Bioanalysis, Charles River

We value greatly our relationship with our academic partners, and offering year-long industrial placements is a great fit for our growing business.

We're proud to share this opportunity as the experience gained from a year within our heavily regulated industry laboratory cannot be replicated in academia. On placement, the students spending time with us get enthusiastically involved in a wide variety of tasks and contribute actively to bringing new therapies to life.

A willingness to work hard work and achieve has been a key feature of all Industrial Placement students we've employed and, without exception, each has been a credit to their institution.

Upon graduation, evidence of an industrial placement such as is offered at Charles River Edinburgh is very attractive to employers. We are proud to have been able to extend full time opportunities to past Industrial Placement students with each going on to contribute to our business and mission in many positive ways.

charles river

Mark Pickworth

Senior Scientist, Sosei Heptares

At Sosei Heptares we immerse the placement students fully within the company so in a busy and dynamic year they will have the opportunity to work closely with an excellent team of medicinal chemists, analytical chemists, computational chemists, molecular biologists and pharmacologists.

They will have a defined project with significant importance to the on-going research portfolio of the company.

Placement students will gain relevant experience and transferrable skills through active project engagement and general exposure which will be of significant value for the next stage of their career.

Non-technical experience and skills will also be obtained, such as:

- knowledge of the process of drug discovery from early stage research to later stages of clinical development
- exposure to an industrial research environment focused on GPCRs
- setting up experiments and problem solving
- data analysis and record keeping
- scientific writing and presentations
- literature searches and critical reading of the scientific literature
- teamwork and time management.

Significant technical experience and skills can also be obtained:

- modern synthetic organic methods - inert atmosphere reactions, cross-couplings etc
- medicinal chemistry analytical thinking and application
- database searching / visualisation using relevant software (Dotmatics and Vortex)
- use of chemical drawing packages (ChemDraw)
- use of chemical search engines (Scifinder and Reaxys)
- wide range of analytical techniques such as TLC, LCMS, HPLC, SFC and NMR
- exposure to cutting edge structure-based drug discovery.

sosei HEPTARES

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

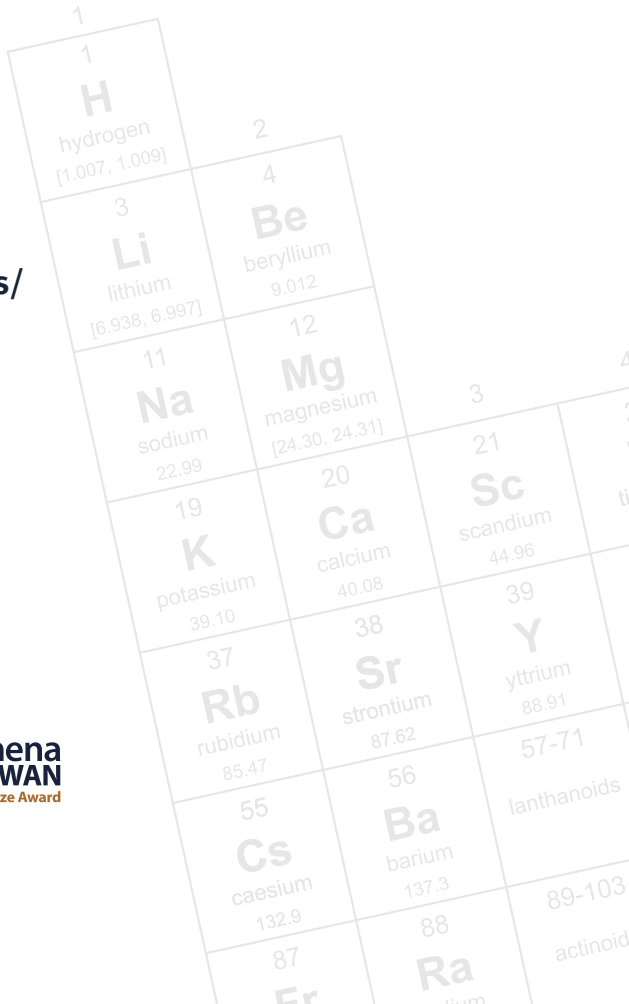
t: 0141 548 2282
chemistry.enquiry@strath.ac.uk

Roslyn Nimmo
t: 0141 548 2300
roslyn.nimmo@strath.ac.uk

Ashleigh Logue
t: 0141 548 4189
Ashleigh.logue@strath.ac.uk

Find out more: **www.strath.ac.uk/science/chemistry/**
eProspectus: **www.strath.ac.uk/studywithus/prospectus/**

@StrathclydeChemistry
@StrathChem
YouTube **Strathclyde Chemistry**
@StrathclydeChemistry



---

the place of useful learning
www.strath.ac.uk
University of Strathclyde Glasgow

EU GENDER CHARTER
Athena SWAN Bronze Award