

## Industrial placements: a guide for undergraduate students

**Work or industrial placements are an opportunity to find out more about different jobs you could do with your degree.**

Building a network of professional contacts and a business reference on your CV will help you find a job after you graduate. We've put together some tips on where to look for placements, and how to get the most out of your experience.

### What is a work/industrial placement?

During a placement, you work in a company or organisation, carrying out tasks and taking responsibilities similar to a regular employee. Year-long placements are part of many university degree courses, usually after your second or third year.

### Why should I do a placement?

An industrial placement is a great way to achieve the following.

- Test run your dream job and explore how your degree course fits into the wider world.
- Develop skills (technical and transferable) that you may not learn during your university course, such as customer focus or business awareness.
- 66% of employers [[download the report](#)] say work experience is a significant factor in their recruitment decisions, above any academic or vocational skills. Work experience in form of a placement can make your CV stand out.
- You may benefit from a business reference in future job applications.
- Build a network of professional contacts and connections; the placement may even be your foot in the door for a job after you graduate.
- Learn about the application and recruitment process, and get a better understanding of what employers are looking for.
- See theory you have learned in lectures and practicals come to life in a work environment.

■ [Find out what other students say about doing work experience](#)

### How can I find a placement?

Start thinking about placements early, as opportunities are advertised up to a year in advance.

- Ask your university's placement office or careers service; they know which companies offer placements and can put you in touch with them.
- Search online job boards – for example, [ChemistryWorldJobs](#) or [Rate my placement](#) – for 'work placement', 'industrial placement' or 'internship'.
- Get in touch with companies you're interested in and ask for placement opportunities or write a speculative application.
- Friends and family, academic tutors, colleagues from your weekend job: ask what they are doing; maybe someone does something you are interested in and could ask their employer about placement opportunities.
- If you are looking for funding for summer placements, the Royal Society of Chemistry offers [Undergraduate Research Bursaries](#). Many learned societies – for example, the [Biochemical Society](#) or the [Institute of Physics](#) also offer summer bursary schemes.

■ Between December and March, Chemistry World Jobs advertises placements in small and medium companies funded by the Royal Society of Chemistry; they are open to all students doing an up-to-12-month placement as part of their degree course.

Be prepared for people to say no but don't let that discourage you. If you have been turned down, ask why – it may help you improve future applications.

## What do I need to know about my placement?

### What will a placement involve?

- Particularly during year-long placements you will become one of the company's employees, carrying out similar tasks and taking responsibility for your own work.
- Some companies will give you a year-long project to work on, while others may offer more routine work in addition to a few shorter projects.
- Usually, you will be appointed a line manager and a mentor, who will train and support you throughout your placement.
- Once you've settled in, you may be asked to work more independently and read about things you don't know on your own initiative.
- If there's something you find really interesting but won't be allowed to do yourself (for example, due to health and safety concerns or lack of training) you may be able to help or shadow a colleague for a day.

### Will I get paid?

- If your placement is part of a university degree, employers aren't legally obliged to pay you, although it is strongly recommended. Usually, employers pay [minimum wage](#), [living wage](#) or above.
- If you do a placement or internship in your own time (that is, not as part of a degree course), employers [have to pay you](#) at least the minimum wage.

## How do I make the most out of my placement?

### Make a good first impression

Turn up on time, be suitably dressed and be friendly and reliable from the start.

### Set some objectives

Think about the skills you want to develop or improve.

### Be organised

Listen carefully to instructions and write down important procedures, dates and deadlines; and don't be afraid to ask if you want to know more or need clarification.

### Get involved

Don't be afraid to speak up, make comments or suggestions, and talk about your ideas.

### Get to know your colleagues

Make an effort to introduce yourself to your colleagues. Most people are happy to talk about their jobs when asked.

### Record your achievements

Identify what you've done and learned: this will help you when applying for future jobs.

### Ask for feedback

Gather formal and informal feedback from your mentor and colleagues as you go along.

## What if my placement is part of a degree course?

- An academic tutor may visit you at your workplace.
- You may be asked to do a presentation or write a report about your placement, which could contribute to your overall degree mark.
- During your placement you may need to do some studying, usually in your own time.
- Your university usually requires placement work to involve a significant amount of research, although this does not have to be lab-based. Ask your placement office what types of work would be acceptable.

## Useful links

- [Chemistry World Jobs](#): job and placement listings
- [175 Faces of Chemistry](#): find out more about the lives and careers of 175 inspiring chemists

- [Royal Society of Chemistry Careers](#): find out how we can support you and discover different careers across the chemical sciences
- [Cogent skills](#): different placement types, placement testimonials and tips for your application
- [Student Ladder](#): overview of grants for work placements from different organisations
- [The Biopharma Skills Consortium](#): resource collection on placements in the biopharma sector

## Case studies

### Computational drug development at MedChemica

Lauren's work contributed to the company's success.

MedChemica is a small company based in Staffordshire, UK, providing drug discovery services, and carrying out medicinal and synthetic organic chemistry as well as computational studies. Lauren, while studying medicinal chemistry at University of Leeds, chose to work with MedChemica to gain a better understanding of the drug discovery process and the industry in general.

“I learned a lot [during a drug discovery module in my undergraduate course] about what aspects of the body the drugs need to affect and how it needs to transport through the body”

During her placement, she could put the theory into practice. “I hope that the results of my project will contribute to MedChemica as a whole”, Lauren says. Not only did her work provide measurable benefits for the business, she also developed her communication and report writing skills as well as her understanding of computational medicinal chemistry.

### Chromatography at Reach Separations

Dikiviti explains what it is like to do original research rather than lab courses.

Reach Separations, a small company located in Nottingham, UK, specialises in chromatography for the analysis and purification of small molecules from the pharmaceutical, agrochemical and fine chemical sectors. Having enjoyed her analytical chemistry courses at the University of Warwick, Dikiviti decided she wanted to find out how practical analytical chemistry is applied in industry.

Not only did the placement develop her presentation, communication and advanced practical skills, but it also increased her confidence working in a business environment. “Conducting my own research is very different from what I've done before”, she says.

“I realised that working at Reach Separations would mean that I had access and training to some of the best and current analytical instrumentation.”

At university, an experiment's outcome is usually well-defined; however, original research may lead to unexpected discoveries that need to be considered for future work. Dikiviti says that she feels that she has added value, her work benefiting both the company and the wider scientific community. Her placement will certainly benefit her in finding employment after graduation. “When I graduate, I will have built a strong network of contacts within the industry I want to work in”, Dikiviti says.

### Drug development services at LGC

Rachel and Rowan discovered their passion for research during their placement.

Both Rachel and Rowan started out on BSc courses at the University of Leicester, but a student's presentation about their industrial placement experience inspired them to transfer to an MChem course with a year in industry.

Rachel had previously done a summer placement at Dow Chemical site in King's Lynn, but didn't get the chance for some hands-on lab work. Rachel explains her choice for applying to LGC, an international biochemical analysis company where she and Rowan analyse clinical drug trial samples: “Although my degree is chemistry with forensic science I was certainly more interested in the analytical side of things.”

Having sent in their CVs and covering letters, Rachel and Rowan were invited for interviews. “On the day we had a tour and interviews in a kind of speed dating setting – there were four tables and different questions with different people”, says Rowan, who studies pharmaceutical chemistry. “The interview had a skills and knowledge side to it and there were a lot of technical questions. I had to do a lot of research into the company and the techniques they use there”, Rachel adds.

Having been accepted to work at LGC, their first month started with training sessions to bridge the gap between practical university courses and a fully functioning analytical lab. “In my first month, there was a lot of work shadowing, but I’ve been given more and more independent work”, Rachel explains.

“It’s made me realise that there’s a lot more out there than I thought; now that I’ve worked in this area of chemistry, I can see myself here for the long run.”

Spending a year at LGC has reinforced Rowan’s interest in lab-based work; she would like to go into drug discovery and development after graduating. “I’ve also learned better time management and, although I had team working experience before, this has definitely shown me how to work with other people to achieve more than you could do yourself”, she adds. “It’s given me a good insight”, agrees Rachel, who wants to do an industrial PhD after she graduates.

### **Organic synthesis at AstraZeneca**

Esther enjoyed the steep learning curve during her placement.

Having decided to do an industrial placement to raise her chances of finding a job after graduating, Esther from Bristol University decided to apply for a placement at AstraZeneca. Here, more than 50,000 employees globally discover, develop and commercialise mainly prescription medicines.

Having undertaken an online application and assessment day including a technical interview, Esther joined AstraZeneca’s cancer drug development labs where she does targeted chemical synthesis. Every student gets assigned a supervisor who he or she works alongside during the first weeks. “They don’t mind if you ask them millions of questions, they won’t get annoyed”, Esther says about her supervisor.

“It’s an exponential learning curve at the start, there are a lot of things to learn...but it’s a wonderful experience.”

Esther says about her supervisor. The lab skills she developed during her time with AstraZeneca are certainly going to come in handy when she does her Master’s project.

The placement also changed Esther’s ideas of what she wants to do after graduating. “What I thought before that this was 100% the career for me”, Esther says. “What I found coming here is that, though I greatly enjoyed it, I’m not sure it necessarily is [the career for me]. I think that’s invaluable experience.”