Manchester Metropolitan University

Laboratory Scientist
(Chemical Science)

Degree Apprenticeship

Ofsted Outstanding Provider

Contents

mmu.ac.uk/apprenticeships

Award-winning Degree Apprenticeships

Manchester Metropolitan University is one of the most popular universities in the UK, currently educating over 39,000* students. The University takes its responsibility for creating work-ready graduates very seriously and maintains close industry and business links.

Our Degree Apprenticeships are practice-focused. They equip our apprentices with the skills to ensure they are ready to take on the industrial challenges of tomorrow and make their mark. We develop our programmes in partnership with employers, to meet the needs of industry and individuals.

As pioneers of degree apprenticeships, we have become industry leaders, allowing us to build unrivalled partnerships with some of the UK's largest employers and innovative small and medium-sized enterprises (SMEs).

* HESA data 2020/21, includes students on distance learning and accredited courses at partner institutions

2,400
apprentices
on 18 programmes

Top university in the UK
for degree apprenticeships
RateMyApprenticeship Awards 2019, 2020, 2021, 2022

92%
merit or distinction at EPA in 2022

110+
apprentices recognised
at regional and national awards

Winner
University of the Year
at the Multicultural Apprenticeship Awards 2022

540+
Employer partners

Rated 'Outstanding'
by Ofsted 2018 and 2022

Training Provider of the Year
North West Apprenticeship Awards 2023

About the **programme**

This established industry-driven and government-supported programme has been developed to address a skills shortage. The programme produces graduate employees through an innovative work-based learning approach.

Co-developed with industry

This programme combines and embeds business improvement, scientific knowledge and technical skills that are highly valued within the workplace. It has been developed in conjunction with industry. Participants will develop as confident and capable science professionals in their organisation by integrating academic learning and practical on-the-job training.

The qualification

Upon successful completion of the programme, participants will achieve a BSc (Hons) Chemical Science Degree. Apprentices will be able to apply for Registered Scientist (RSci) status – one of several recognised professional status levels from the Royal Society of Chemistry.

Features and benefits

- Both existing staff and new employees will develop skills and knowledge in providing excellent service.
- Attract enthusiastic and talented students/ employees in this area of skills shortage.
- Assessments are tailored around the job role of the apprentice.
- Utilise targeted government funding and incentives to retain and prepare staff for a significant future within your organisation.

Who is the programme for?

This programme is suitable for those looking to build a science career and who are employed in the chemical, pharmaceutical, materials, food and drink, utility, healthcare, aerospace and automotive industries.

The Laboratory Scientist Degree Apprenticeship has a strong professional and practical focus, designed to help apprentices move into roles such as:

- Scientific team leader
- Technologist
- Laboratory analyst
- Laboratory manager
- Senior scientist
- Process operations manager

Core knowledge, skills and behaviours

On successful completion of the Apprenticeship, students will have demonstrated the full range of knowledge, skills and behaviours defined by the standard. These include:

- Knowledge of scientific principles and theories.
- Knowledge of chemical laboratory techniques and skills in carrying out scientific experimentation.
- Knowledge of principles of project management.
- Demonstrated ability to comply with and promote safe working and quality systems within the workplace.
- Lead continuous performance improvement within the scientific environment.
- Knowledge of data analysis tools and statistical techniques for effective evaluation of results.
- Ability to work independently with minimal supervision and manage time effectively.
- Communicate effectively to a scientific and non-scientific audience.
- Demonstrate reliability, integrity and respect for confidentiality.

Success stories

Choosing a degree apprenticeship was an easy decision for me as I knew I didn't want to study full-time and didn't want to move away from home to go to university. A degree apprenticeship really stood out to me, as I would have the opportunity to earn while learning, gain experience in a scientific workplace and have opportunities that wouldn't be available to me otherwise.

Since starting my degree apprenticeship, I have learnt a lot in the workplace and at University. In my workplace, I have learnt about safety in the lab, the nature of the samples they analyse, how to use scientific instruments and how to interpret results. My studies at Manchester Met have laid the foundation for learning about these samples and instruments, deepening my understanding when I am conducting experiments at work. I enjoy being an apprentice because I am always learning, whether that's in the workplace or through the units I'm being taught at University.

I am hoping my Degree Apprenticeship will allow me to develop my career and that I will become a fully qualified chemist. I'm hoping that I will have gained the experience and knowledge needed to continue my progression in the workplace.

Morgan Allison
Laboratory Scientist (Chemical Science)
Degree Apprentice
Syngenta Ltd

We were very excited to offer degree apprenticeships to complement other recruitment streams already in place at Syngenta's Huddersfield Manufacturing Centre. We have a long and rich history of recruiting from schools and colleges, and supporting young apprentices on the first steps of their career.

The Laboratory Scientist Degree Apprenticeship programme offers something quite unique, an opportunity for the apprentice to apply their university teachings to the industrial laboratory environment in a timely manner. We feel that being able to relate the theory to the practical aspects in this way serves to reinforce the learning process.

Our apprentices are already making a valued contribution to the manufacturing business. So far, their work has included chemical analysis, process hazard assessments and process developments to support the manufacturing operations for our crop protection products.

I'd highly recommend Manchester Met and their degree apprenticeship provision to other employers. I'm very much looking forward to continuing to work with Manchester Met in the future.

Mark Sykes
Characterisation and Process Analysis
Team Leader
Syngenta Ltd

Creating a **supportive environment**

In order to create an environment where apprentices will be able to achieve successful outcomes, both academically and within their organisations, the University has put in place a wide range of support.

Apprentices

Dedicated Skills Coach

A dedicated Skills Coach will conduct termly reviews with the apprentice and workplace line manager, advise on University regulations and procedures, and provide pastoral support.

Personal Learning Plan

Where additional learning support requirements are identified, they will be met through a Personal Learning Plan.

University services

Full access to University services – including disability services, wellbeing, the library, IT services and sports facilities.

Online study environment

Our programme is designed to support learners who live and work outside of the North West. Study materials can be accessed 24/7 via our online study environment, Moodle. Moodle enables apprentices to access reading lists, download journal articles, contribute to online discussion groups, email tutors, listen to podcasts and submit assignments.

Cutting-edge facilities

The Laboratory Scientist Degree Apprenticeship is delivered by the Department of Natural Sciences in the Faculty of Science and Engineering. Our new £115 million Science and Engineering building is a direct investment into STEM education and research, transforming the way we teach and how our students learn. Our research-rich academic community has a well-established reputation in biology, chemistry, geography and environmental science. The department works with research institutions, industry partners, national organisations and NGOs worldwide to address the challenges posed by environmental, socio-economic, cultural and political change.

University library

The main University Library is located on the All Saints Campus and is open 24/7 during the academic year.

The Library provides access to a wide range of books, texts, journals, business information and statistics. It also runs a number of workshops for students on study and research skills.

Many of the Library's resources are available online. For example, apprentices can search the library catalogue, renew and reserve books, and download journal articles and research information.

The Library has also recently invested £250,000 in ebooks.

Employers, line managers and mentors

Apprenticeships team support

The Manchester Met Apprenticeships Team is available to support employers throughout the apprenticeships process, including:

- Holding meetings with staff and managers to understand operational challenges and training needs.
- A dedicated account manager, providing a single point of contact with the University.
- Working in partnership to tailor content and delivery.
- Sending regular reports of apprentice progress.

Progress reviews

Line managers and mentors are supported through regular progress reviews to set, monitor and evaluate objectives and targets.

Employer advisory boards

The Employer Advisory Board contains representatives from organisations who have apprentices on the Laboratory Scientist degree apprenticeship programme at Manchester Met.

It meets three times per year to ensure that the employer voice is represented in the design, development and management of our degree apprenticeship programme.

It also acts as a forum for employers to share experience and best practice in the apprenticeship support and delivery in the workplace.

Delivery and **structure**

The role of an apprentice laboratory scientist involves developing a higher level of understanding and achieving an independent approach to work.

Delivery

Laboratory scientists are expected to be able to apply broad scientific knowledge to carry out a scientific job role. They will be able to work with novel techniques and build the capabilities to problem solve, innovate and develop experimental plans.

Apprentices work full-time whilst studying towards a BSc (Hons) Chemical Science degree over four years.

Students study a tutor-supported e-distance learning curriculum and attend residential schools. The work-based projects, negotiated with employers, offer students the opportunity to apply their learning directly to their organisation and its business context.

The programme is primarily taught through tutor-supported online study and part-time over four years.

Apprentices will attend a two-day induction at the University to help them get to know each other and balance undergraduate study with working full-time. They will also attend a week-long residential at our campus in central Manchester once a year, in addition to a two-day mini-residential in the first year.

They will complete projects in their workplace, tackling challenges relevant to their employer and applying their learning directly to their organisation and its business context.

A Skills Coach and a workplace supervisor will undertake regular progress reviews and support apprentices in their work and studies.

Off-the-job training

Apprenticeship funding rules include a requirement that apprentices should spend at least 6 hours per week of their usual working time on developing relevant skills, knowledge and behaviours. In practice, this rule means that apprentices must undertake University tuition, online learning and assessments in combination with a range of other eligible activities undertaken in the workplace.

These can include, but are not limited to:

- Developing evidence, undertaking reflective practice and gathering peer feedback towards their apprenticeship.
- Shadowing or mentoring of colleagues in their organisation or another organisation.
- Formal or informal training relevant to the apprenticeship.

I was very passionate about chemistry and continuing my education, but I was also getting fed-up of classroom-based learning. I wanted to embrace the hands-on world of work and all the challenges that it would bring. I wanted to be able to put all my learning into practice on a day-to-day basis. Completing a degree apprenticeship therefore seemed like the best of both worlds. I was also ready to be earning money and the freedom that would offer.

The part of the programme that I enjoyed the most was the residentials. I enjoyed getting to meet other apprentices in similar roles to myself and learning all about their companies and what they do on a day-to-day basis. It also helped make me feel like I was part of Manchester Met despite the course being distance learning for the most part. It was great getting to use the facilities like the laboratories and the library as well.

I would definitely recommend a degree apprenticeship to anyone. It is hard work, but my advice would be to stick with it, and it will pay off in the end and be a great move for your career. The work experience and real-life application alongside the qualification is invaluable. There are opportunities to learn from a wide range of people during an apprenticeship, from the academics and lecturers to the industry professionals in the workplace – take advantage of this as much as you can!

Braidey Greenbank
Laboratory Scientist (Chemical Science)
Degree Apprentice Alumna
Croda

Indicative programme **content**

Year 1

- Fundamental physical chemistry
- Fundamental inorganic chemistry
- Fundamental organic chemistry
- Introduction to chemical analysis
- Introduction to workplace regulation
- Laboratory scientist skills 1

Year 2

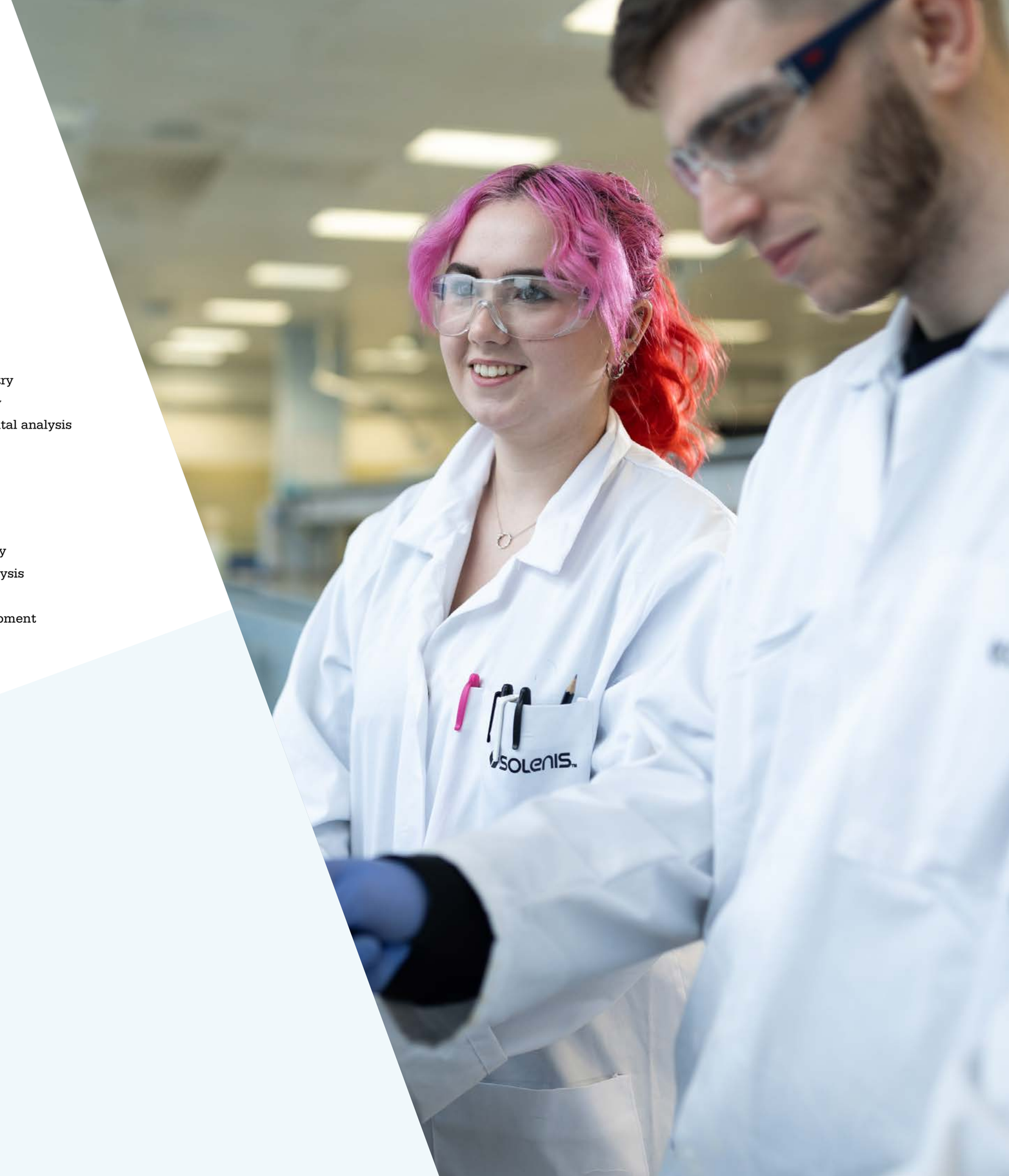
- Intermediate physical chemistry
- Intermediate inorganic chemistry
- Intermediate organic chemistry
- Applied chemistry for industry
- Communication and research skills
- Laboratory scientist skills 2

Year 3

- Advanced inorganic chemistry
- Advanced organic chemistry
- Spectroscopy and instrumental analysis
- Specialism units
- Business improvement
- Workplace project

Year 4

- Advanced physical chemistry
- Advanced instrumental analysis
- Further topics in chemistry
- Project and personal development



Application information

Entry requirements

Direct entry from school or college will normally require three A levels (with one being Chemistry) or equivalent, equating to a minimum of 104 UCAS tariff points. We will individually evaluate candidates who do not meet these requirements but have workplace experience or have qualifications such as BTEC Level 3 Extended Diploma in a scientific discipline.

Level 2 English and maths requirements

It is a condition of apprenticeship funding, at any level, that all applicants are able to evidence GCSE English Language and Maths passes at grade A*-C/9-4 or commit to completing Functional Skills Level 2, in addition to the programme. If required, this is provided at no additional cost.

How to apply

Once an employer has confirmed that they will support their apprentice(s) on the programme, we will issue an application pack to interested applicants. The application form enables us to build up a picture of the candidate, their experience and the knowledge and skill areas they are looking to develop. We recommend that a CV is included, with a complete work history, and that the personal statement is used to highlight management strengths and work achievements.

Employer next steps

If you would like to discuss how this programme could work for your organisation, or if you have any further questions, please contact our dedicated Apprenticeships Team.

E: apprenticeships-employer@mmu.ac.uk

T: 0161 247 3720

Workplace considerations

Employers need to reflect on whether the workplace infrastructure is sufficient to fully support the apprentice in working as a trainee laboratory scientist. Apprentices need to be employed in a practical, laboratory-based role in order to meet the requirements of the apprenticeship.

Apprentices will need to be supported in the workplace by a suitably qualified mentor who is able to assess competency in practice and support the apprentice to develop as a competent laboratory scientist. Apprentices will need to undertake a lab-based chemistry-specific project in their final year.

Evaluation of occupational competency

The Manchester Met Laboratory Scientist Degree Apprenticeship is built around the requirements of the Laboratory Scientist Standard. By completing the programme,, the apprentice will meet all requirements of the apprenticeship standard and be well prepared for end-point assessment (EPA), which is carried out by an independent third party.

The programme contains units specifically focused on meeting the apprenticeship standard. For example, the Laboratory Scientist Skills units and Business Improvement unit. These units will instil apprentices with the knowledge and opportunity for them to demonstrate the required skills through workplace tasks.

The inclusion of two workplace projects provides apprentices with key opportunities to apply their learning to address genuine workplace challenges. Through these projects, apprentices will evidence a wide range of skills and behaviours fundamental to the Laboratory Scientist role. The final year project mirrors requirements of the Workplace Synoptic Project and gives apprentices the evidence needed for EPA.

We regard apprenticeships as a true partnership between ourselves and the employer. Apprentices will have an assigned Manchester Met reviewer who will work with them throughout the programme to ensure they meet all the requirements of the apprenticeships and prepare them for EPA.

An e-portfolio system is used to capture this evidence and apprentices will populate this as they progress through the programme.

Apprentice workplace mentors perform a key role. This is both by providing mentor testimonies to evidence the apprentice's competence and also by ensuring that the apprentice role, in conjunction with the programme, provides opportunity to develop and apply the full range of occupational competences defined by the standard.

Get in touch

Our growing portfolio of undergraduate and postgraduate apprenticeships include programmes in the following areas:

- digital and technology
- digital marketing, creative design and UX
- health and social care
- leadership, management and HR
- retail

If you think one of our programmes could work for your organisation, please get in touch. We will be happy to provide further information and guide you through the next steps.

Contact us:

Apprenticeships team
E: apprenticeships-employer@mmu.ac.uk
T: 0161 247 3720
W: mmu.ac.uk/apprenticeships

@mmuapprentice

MMUApprenticeships

Degree Apprenticeships at Manchester Metropolitan University

Degree Apprenticeships at Manchester Met

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We are committed to ensuring that all of our materials are accessible. This brochure is available in a range of formats, such as large print, on request via marketing@mmu.ac.uk

Apprenticeships

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