

# Laboratory Scientist (Bioscience)

**Degree Apprenticeship**



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[mmu.ac.uk/apprenticeships](https://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

**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

\* HESA data 2020/21, includes students on distance learning and accredited courses at partner institutions small and medium-sized enterprises (SMEs).

# About the programme

This industry-driven programme allows apprentices to investigate fundamental and applied aspects of microbiology, molecular biology, genetics, disease, diagnostics, environmental monitoring and cell biology.

## Co-developed with industry

Starting in 2022, this innovative apprenticeship has been developed with leading employers to equip graduates with the scientific knowledge and technical skills to start or progress a career in the bioscience industry.

Emphasis is placed on the environmental, industrial, clinical and research applications of applied Bioscience techniques. A significant aspect of the course emphasises the application of these technologies within biotechnological, medical, environmental microbiology and molecular biology real-world scenarios.

This programme has been designed in close consultation with employers from the Bioscience Industry sector, where the content is driven by the specific needs of the employer, i.e. principal knowledge, specialist skills and business awareness. The distinctive character of the Bioscience Undergraduate Programme will be founded on the integration of employer involvement, accessibility, flexibility and partnership that is underpinned by work-based learning (WBL). The programme is tailored (wherever possible) to the specific work-based activities of the students who are all in appropriate, full-time employment.

## The qualification

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

## Features and benefits

- Both existing staff and new employees will develop skills and knowledge in providing excellent clinical 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 bioscience, pharmaceutical, microbiology, genetics, food and drink, environmental utility/testing and diagnostics healthcare 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
- Microbiologist
- Microbiology Lab Technician
- Senior Technician/Scientist
- *In-vivo* Scientist
- Laboratory systems support Technician
- Laboratory manager
- Advanced cell technologist
- Industrial Biochemist
- Bioinformatician

### Core skills, knowledge 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.

# 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, to 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 Bioscience 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, as well as health and advanced materials.

## 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, and business information and statistics. It also runs a number of workshops for mature 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, download journal articles and research information.

## 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.



# Delivery and structure

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

## Delivery

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

Apprentices will attend a two-day induction at the University to help them get to know each other and to receive support with balancing undergraduate study and 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 University coach and a workplace supervisor undertake regular progress reviews and support apprentices in their work and studies.

Taught by research-active academics, and experienced skills tutors the course has been designed to give a wide-ranging experience for students with real-world relevance. Typical areas of study may include biomolecules, genetics of microorganisms, medical and environmental microbiology and techniques and applications in molecular biology.

## 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.

**Apprenticeships are used as one of our recruitment options as it enables us to develop the skills needed whilst studying the theory via Manchester Met. Some of the laboratory based tasks are suited to the early career candidates and the learning over the four year apprenticeship builds confidence for our apprentices.**

**Degree apprenticeships have seen great success across AstraZeneca, offering us a more diverse opportunity to develop early talent, targeting those individuals who have chosen not to go to university full time.**

**Many apprentices have gone on to further careers beyond the microbiology lab and some have moved to senior roles within microbiology.**



**As an employer, Manchester Met has worked with me to ensure the programme fitted the educational needs for our apprentices - any improvements or changes needed are considered and progressed.**

**Karen Capper**  
Head of Microbiology, Pharmaceutical  
Technology & Development  
AstraZeneca

# Programme content

This Bioscience degree provides apprentices with opportunities to apply skills of critical analysis to real-world situations, engagement with external stakeholders, utilisation of real-world examples, data and scenarios in practical and laboratory work and assessment tasks. Apprentices are trained to demonstrate a high degree of professionalism by developing and testing initiative, creativity, motivation, professional practice and self-management. There are numerous opportunities for students to develop, practice and demonstrate effective communication using a variety of appropriate media, e.g. through written work and verbal presentations. The programmes provide opportunities for apprentices to develop team-working and leadership skills through participating in collaborative projects with peers and external partners.

Apprentices are also encouraged to develop and articulate an awareness of the environmental, social and community contexts within their discipline. This is achieved through the use of examples throughout the curriculum demonstrating these contexts. The aim is to develop graduates who can live and act sustainably and make informed decisions for the benefit of themselves and society, now and in the future, with an understanding of the limits of the natural resources to sustain life on Earth.

## Year 1

- Biomolecules, Cells and Genetics
- Fundamental Microbiology
- Comparative Anatomy and Physiology
- Fundamental Organic Chemistry
- Introduction to Workplace Regulation
- Laboratory Scientist Skills 1

## Year 2

- Applied Molecular Biology
- Biochemistry
- Microbiology
- Introduction to Drug Discovery
- Statistics and Academic Skills for Bioscientists
- Laboratory Scientist Skills 2

## Year 3

- Biotechnology
- Advances in Genetics and Genomics
- Forensic Genetics
- Business Improvement
- Workplace Project

### Option units:

- Formulation, Fate and Biometabolism, or
- Forensic DNA Profiling

## Year 4

- Infectious Disease and Health
- Frontiers in Biotechnology
- Advanced statistics for Bioscientists

### Option units:

- Environmental Microbiology or
- Drug Target Interactions



# Application information

## Entry requirements

Direct entry from school or college will normally require three A levels (with one being Biology) 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.

## Evaluation of occupational competency

The Manchester Met Laboratory Scientist Degree Apprenticeship is built around the requirements of the Laboratory Scientist Standard. By completing the course, 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 work-place 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 Apprenticeship 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](mailto:apprenticeships-employer@mmu.ac.uk)

T: 0161 247 3720

W: [mmu.ac.uk/apprenticeships](http://mmu.ac.uk/apprenticeships)

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