



# Laboratory Technician Level 3

**Apprenticeship Standard**

[wmc.ac.uk/apprenticeships](http://wmc.ac.uk/apprenticeships)

# Overview

This occupation is found in a wide range of organisations, including chemical, pharmaceutical, biotechnology; analytical science services, dental laboratories and educational establishments.

The Laboratory Technician carries out both routine and one-off laboratory testing (and manufacturing where relevant) and performs a variety of technical support functions across the organisation.

In their daily work, an apprentice interacts with the laboratory manager and colleagues, internal departments such as manufacturing, procurement and quality, external suppliers and customers such as service engineers.

An employee in this occupation will be responsible for proactively finding solutions to problems and identifying areas for improving the business.



## **Duration:**

24 months + 3 months for the End Point Assessment (EPA).

## **Entry Guidelines:**

English & maths at GCSE grade A\*-C/4-9 or Functional Skills level 2. Two Science subjects at GCSE grade A\*-C/4-9.

N.B. All apprenticeship standards require apprentices to provide evidence of their English and maths grades before they can progress through the Gateway to their End Point Assessment and achieve the apprenticeship qualification.



# Laboratory Technician Level 3

## Course Overview

Pre-programme	On Programme Learning covering Skills, Knowledge & Behaviours	Gateway	Independent End Point Assessment
Initial assessment English & Maths	Laboratory Technician Level 3 (Day release, Twelve Quays Campus)	English level 2 Maths level 2	Knowledge test
Skills Scan	Portfolio of evidence to be built during on programme learning	E-portfolio of evidence	Observation with questioning
Induction with Trainer Assessor	On Programme Assessments & Reviews: 6-8 weekly sessions with Trainer Assessor & 8-10 week Progress Reviews with apprentice and employer		Structured Interview

# Course Details

This apprenticeship programme is designed to develop the knowledge, skills and behaviours required to be an effective Laboratory Technician.

## **The apprentice's Knowledge element of the course will cover:**

- How to safely store and handle data in line with national and international data protection and cyber security regulations.
- How to apply statistical techniques for data processing and presentation eg calculation of median, standard deviation.
- How to recognise problems and apply appropriate scientific methods to identify causes and achieve solutions.
- Risk assessment & control including Control of Substances Hazardous to Health assessments (COSHH) and Safety Data Sheets.
- Laboratory health and safety and compliance with legal, regulatory, ethical requirements including the management and control of laboratory waste and the handling and disposal of chemical substances.
- The external regulatory requirements pertinent to the sponsoring company & relative specialism in which they operate e.g. Medicines & Healthcare Regulation Authority (MHRA), Food and Drug Administration (FDA), Office for Nuclear Regulation (ONR)
- The reason for laboratory investigations including out of specification results.
- Error reporting and correction techniques e.g. for traceability.
- The principles of Laboratory Information Management systems (digital or paper based).
- Scientific equipment management including maintenance e.g. cleaning, calibration, recognising equipment faults and when to escalate.

## **The Occupational Skills element of the course will include:**

- Comply with health and safety policies and procedures including HASWA, COSHH, risk assessments, use of personal protective equipment (PPE), manual handling, emergency procedures.
- Order and control stocks of laboratory materials where required.
- Prepare for, and perform, laboratory experiments, tests or tasks following any specified methodologies to provide reliable, accurate data e.g. weighing, pipetting, filtering, spectroscopic techniques, chromatography techniques.
- Demonstrate technical competence in the use of specified instruments and equipment.
- Report faults and seek diagnostic advice to maintain equipment in good working order, including calibration where required.
- Keep accurate records of laboratory work undertaken and results.
- Contribute to the preparation of reports.
- Demonstrate problem solving techniques including identification of sources of error and how they can be reduced e.g. human error.



# Skills & Behaviours

The **Skills & Behaviours** element of the apprenticeship is to be completed with support from a Trainer Assessor making periodic visits to the apprentice in the workplace. The Trainer Assessor will support and guide the apprentice to ensure that they are developing the skills and competency required in accordance with the apprenticeship standard, including:

- effective communication and teamwork
- ability to work independently and take responsibility for initiating and completing tasks
- time management and the ability to adapt to change
- The apprentice will use the e-portfolio system called OneFile to build a portfolio of work throughout the development stage
- which is a key component of End Point Assessment and demonstrates their occupational competency.

# Gateway

Once the apprentice has completed all the required elements of the apprenticeship and their manager and Trainer Assessor agree that they are ready for the end point assessment, they will progress through the Gateway to undertake their End Point Assessment.

A completed portfolio of evidence is a compulsory End Point Assessment (EPA) gateway requirement that supports the Interview component.

The apprentice's employer must sign-off the portfolio of evidence, that has been completed by the apprentice during their programme, to confirm the apprentice has demonstrated the knowledge, skills and behaviours assigned to this apprenticeship standard.



# End Point Assessment

The End Point Assessment must only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that means they have achieved occupational competence.

**End Point Assessment (EPA) normally takes 3 months to complete and consists of:**

- Knowledge test (multiple choice questions)
- Observation with Questioning
- Structured Interview (supported by portfolio of evidence)

## Assessment Method 1: Knowledge test

The Knowledge test will take up to 75 minutes to complete and the apprentice cannot refer to reference books or materials.

## Assessment Method 2: Observation with Questioning

a. The observation will take 3 hours and the following activities must be observed:

- i. Working safely;
- ii. Following procedures/work instructions;
- iii. Complying with regulations;
- iv. Following quality systems.

b. Questions will be asked after the observation is complete and this will take up to 20 minutes.

## Assessment Method 3: Structured Interview

The purpose of the interview, which will last for 75 minutes, is to determine the extent to which the apprentice understands the requirements of his/her role as defined by the apprenticeship standard and to explore them through discussion.

The portfolio of evidence (that has been completed by the apprentice during their programme) will be used as a source of evidence by which apprentices can exemplify their responses to questions asked by the assessor. The portfolio itself will not be assessed, but will be used by the assessor to prepare the questioning for the interview and by the apprentice to exemplify their responses to the questions.

# Grading & Progression



## Apprenticeship grading

The available grades for this apprenticeship programme are **Distinction, Pass or Fail.**

## Where can apprentices progress to?

The apprentice may choose to progress on to the Technician Scientist level 5 apprenticeship standard.



