

National Apprenticeship - Occupational Profile

Apprenticeship Title Laboratory Technician Apprenticeship

NFQ Level 6

Duration 2 Years

**Typical tasks/
responsibilities**

A Laboratory Technician understands good manufacturing practice in the laboratory environment, carries out basic duties of a Laboratory Assistant, including; glassware maintenance, sample collection and logging, ordering of chemicals and consumables, disposal of waste, daily calibration checks, archiving, etc. Supports solution preparations, tests raw materials, carries out basic testing such as; pH measurement, titrations and bulk density. Accurately and adequately explains scientific contexts relating to quality control..

On successful completion, the Logistics Associate will have:

Knowledge

Core knowledge listed:

- Understand the fundamentals of Science
- Understand the principles of cGMP and GDP
- Understand the quality systems that are in place and their importance
- Ability to work safely in the laboratory, maintaining excellent housekeeping whilst following appropriate safety, environment and risk management systems
- Understanding of the basic chemistry and microbiological techniques
- Knowledge of pharmacopeia's
- Understand safe laboratory and work practices and methods
- Knowledge of methods of receiving and logging samples into a QC laboratory
- Knowledge of the variety of methods involved in water testing, raw material, in-process, finished product
- Understand the importance of data integrity, recording results in a timely and accurate fashion
- Understand the correct labelling of laboratory reagents and samples
- Knowledge of "out of specification" investigations and "Lab Investigations Reports" processes
- Knowledge of the purchase systems of QC consumables and liaising with approved suppliers
- Understanding the various steps in the production process - upstream and downstream
- Knowledge of calibrating laboratory equipment as required
- Knowledge of reporting processes and current deficiencies in GLP/GMP

Technical Skills

- Demonstrate the ability to operate company equipment and instruments effectively and according to standard operating procedures (SOPs)
- Demonstrate the ability to work effectively in a safe manner within the laboratory
- Demonstrate the theoretical knowledge of relevant science and technology
- Handle materials and equipment correctly, paying due regard to safety and environmental protection regulations
- Capability to perform basic chemistry techniques to include but not limited to the use of:
 - Pipettes
 - Auto-Titrations
 - pH
 - weighing
 - diluting to volume
 - Volumetric calculations
 - Karl Fischer
 - Thin Layer Chromatography and physical testing
- Ability to identify and note equipment (for sampling, testing and control) mal-operation if it occurs, and informing the senior analyst

Soft Skills

- Communicate effectively using a full range of skills: speaking; listening; writing; body language; presentation
- Work and interact effectively within a team
- Good technical writing skills
- Work independently and take responsibility for initiating and completing tasks
- Understand impact of work on others, especially where related to diversity and equality
- Time management and ability to complete work to schedule
- Ability to handle change and respond to change management processes

Competences

Core competencies and behaviours listed:

- Health, Safety and Environmental awareness
- Ability to share knowledge and expertise with others
- Engage in teamwork
- Complete integrity & compliance programs
- Ability to work independently
- Reading comprehension
- Problem solving
- Critical thinking
- Time management
- Microsoft Office (Word/Excel)
- Mathematics and statistics
- Continuous professional development

Industry/industries served by the apprenticeship

Pharma, Biopharma, Chemical Manufacturing, Food and Drink, Medical Devices and Diagnostics, Analytical Testing Labs

Proposed minimum entry requirements for apprentices on the programme

For entry into year 1 of Level 6 Programme applicants must have the following:

- Pass (Grade O6 or better) in five leaving certificate subjects one of which must be maths and one science related subject
- 250 CAO points

or

- Relevant FETAC Level 5 or Level 6 Graduate
- Current employee with relevant experience and qualifications

Before enrolment on the apprenticeship programme the apprentice must have:

- An Industry Interview
- SOLAS apprentice approval

NB: By completion of the 2 year programme, graduates should be allowed to progress to Level 7 programme. As the first 2 years of the 3-year Level 7 programme are the same as the Level 6, Recognised Prior Learning must be allowed, allowing graduates to complete only one additional year to gain Level 7 accreditation

