

# LABORATORY ASSISTANT

ALSO KNOWN AS:

SAMPLE MAKER

TECHNICAL OFFICER

LABORATORY ANALYST

## HARNESS YOUR EXPERTISE TO TEST, TRIAL AND TRANSFORM RAW MATERIALS INTO GROUNDBREAKING PRODUCTS.

As a laboratory assistant, you'll engage in meticulous work with cutting-edge technology and equipment. Collaborate with engineers, product developers and other professionals to refine formulations and processes.

### KEY SKILLS

Skills which may benefit anyone considering a job as a laboratory assistant include:

- ✔ Analytical skills
- ✔ Attention to detail
- ✔ Chemical and material knowledge
- ✔ Problem solving
- ✔ Technical proficiency

### CAREER PROGRESSION

In this role, you may have the opportunity to progress to other positions. Career progression opportunities include:

- Laboratory Technician
- Team Leader
- Chemical Engineer
- Biofuels Technologist

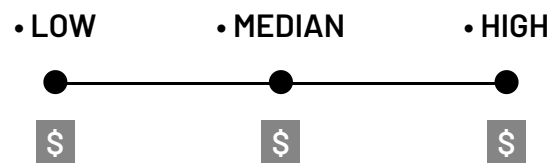
### VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a laboratory assistant include:

- ✔ Curious
- ✔ Reliable
- ✔ Intelligence
- ✔ Integrity
- ✔ Quality-focused
- ✔ Investigative – "Thinker"

### SALARY EXPECTATION

The expected salary for a Laboratory Assistant can vary across different areas of manufacturing and may vary as you become more experienced.



### RELATED INDUSTRIES

► Chemicals, Hydrocarbons and Refining ► Laboratory Operations ► Pharmaceutical and Medical Technology ► Polymers, Plastic and Rubber

### RECOMMENDED SCHOOL SUBJECTS

- Biology
- Chemistry
- Engineering Skills
- Science in Practice

### CORE SCHOOL SUBJECTS

- Essential Mathematics
- Essential English

## JOB OVERVIEW

As a laboratory assistant you will play a crucial role in the creation of new products by conducting experiments and tests on raw materials and prototypes to ensure they meet desired specifications and quality standards. By meticulously analysing data and results, they provide valuable insights that drive innovation. You will help to optimise production methods and contribute to the development of efficient, high-quality products.

Laboratory assistants in manufacturing work with a variety of raw materials and equipment, depending on the industry and specific manufacturing processes. Depending on the industry you are working in, you may work with metals or alloys, polymers or plastics, chemicals and solvents, textiles and fibres, or biomaterials.

In your day-to-day, you will be asked to prepare the laboratory environment, maintain the testing equipment, label samples, record data and store samples safely and efficiently. You may use a variety of equipment including spectrometers, microscopes, mixers and blenders, calorimeters and chromatography systems. As a laboratory assistant your work will ensure that new products are not only feasible but also safe and effective for market release.

## WHAT WILL YOU DO?

Your role may include duties as follows:

1. Perform routine and specialised tests on raw materials and finished products to ensure they meet quality and safety standards
2. Analyse test results and compile data into reports to provide insights and recommendations for process improvements
3. Operate and maintain laboratory equipment, ensuring that all tools are calibrated and functioning correctly for accurate testing
4. Work closely with product developers and engineers to support the development and optimisation of new products and manufacturing processes
5. Monitor production processes to identify any deviations from standards, implementing corrective actions to maintain product quality.

## HOW TO BECOME A LABORATORY ASSISTANT

Becoming a Laboratory Assistant in manufacturing typically requires a combination of education and practical skills. While entry-level positions may be available with qualifications, many employers prefer candidates with formal qualifications in a relevant scientific field. Here are some steps to become a Laboratory Assistant:

1. Complete Year 12 with a strong focus on science subjects, particularly chemistry and biology
2. Consider completing a Certificate II, III or IV in laboratory operations or related field
3. Gain practical laboratory experience through internships or work placements
4. Develop proficiency in using common laboratory equipment and software
5. Apply for entry-level Laboratory Assistant positions in manufacturing companies

## VOCATIONAL EDUCATION & TRAINING

Vocational education and training provide an excellent foundation for a career as a Laboratory Assistant in manufacturing. These qualifications offer hands-on skills and theoretical knowledge directly applicable to the role. Relevant qualifications include:

- Certificate II in Sampling & Measurement (MSL20122)

Qualifications that may support progression in this role include:

- Certificate III in Laboratory Skills (MSL30122)
- Certificate IV in Laboratory Techniques (MSL40122)
- Diploma of Laboratory Technology (MSL50122)
- Advanced Diploma of Laboratory Management (MSL60122)

## UNIVERSITY & HIGHER EDUCATION

While not always required for entry-level positions, a university degree can significantly enhance career prospects and open doors to more advanced roles in laboratory work and manufacturing. Relevant degrees include:

- Bachelor of Science (with majors in Chemistry, Biochemistry, or Materials Science)
- Bachelor of Applied Science (Laboratory Medicine)
- Bachelor of Biotechnology

These programs provide in-depth knowledge of scientific principles and laboratory techniques, as well as critical thinking and research skills. They can lead to roles such as Senior Laboratory Technician, Research Scientist, or Quality Assurance Manager in manufacturing settings. The skills gained through these programs include advanced analytical techniques, experimental design, and the ability to interpret complex scientific data. This higher-level education is particularly valuable in manufacturing sectors that require stringent quality control or engage in research and development, such as pharmaceuticals, food production, or materials engineering.