

CHEMICAL TECHNICIAN

ALSO KNOWN AS:

ANALYTICAL CHEMIST

QUALITY CONTROL ANALYST

RESEARCH CHEMIST

CATALYSE INNOVATION IN THE LAB AND BEYOND.

As a Chemical Technician, you'll be the backbone of research and development, supporting chemists and engineers throughout product testing. Your meticulous nature and laboratory proficiency will contribute to groundbreaking discoveries and quality production, making a tangible impact in the manufacturing world.

KEY SKILLS

Skills which may benefit anyone considering a job as a chemical technician include:

- ✔ Analytical skills
- ✔ Precision
- ✔ Time management
- ✔ Communication
- ✔ Technical comprehension

CAREER PROGRESSION

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

- Team Leader
- Chemical Engineer
- Biomedical Engineer
- Operations Manager

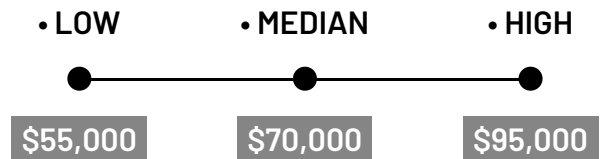
VALUES & ATTRIBUTES

Values and attributes of anyone considering a job as a chemical technician include:

- ✔ Meticulous
- ✔ Diligent
- ✔ Collaborative
- ✔ Integrity
- ✔ Flexible
- ✔ Investigative – "Thinker"

SALARY EXPECTATION

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



RELATED INDUSTRIES

▶ Chemicals, Hydrocarbons and Refining ▶ Pharmaceutical and Medical Technology ▶ Polymers, Plastic and Rubber

RECOMMENDED SCHOOL SUBJECTS

- Physics
- Science in Practice

CORE SCHOOL SUBJECTS

- General Mathematics
- Essential English
- Biology
- Chemistry

JOB OVERVIEW

Chemical Technicians play a crucial role in bridging the gap between scientific theory and practical application in manufacturing settings. Working alongside chemists and engineers, you'll be at the forefront of innovation, conducting experiments, analysing samples, and monitoring production processes.

A typical day might start with setting up laboratory equipment for a series of experiments, followed by conducting tests on new product formulations. You could spend your afternoon analysing data from these tests, preparing detailed reports, and collaborating with the research team to interpret results. Later, you might be called to the production floor to conduct quality control checks on a batch of products.

Your toolkit will include a range of sophisticated laboratory equipment such as spectrometers, chromatographs, and microscopes. You'll also become proficient with data analysis software, laboratory information management systems (LIMS), and specialised industry software for chemical modelling and simulation.

As a Chemical Technician, you'll need to balance attention to detail with the ability to see the bigger picture of how your work contributes to the overall manufacturing process. Your role is vital in ensuring the safety, quality, and efficiency of chemical processes and products, making you an integral part of the team.

WHAT WILL YOU DO?

Your role may include duties as follows:

1. Under the guidance and direction of chemists and/or engineers you will perform experiments and sample testing.
2. Gather, interpret, and document results per industry standards.
3. You will be tasked with the full care, organisation and set-up, storage, cleaning and in some cases – disposal – of laboratory equipment.
4. Monitor and test products and procedures during the production process to ensure they meet quality and safety requirements.
5. Complete all other tasks as requested by chemist and engineering colleagues to support the innovation of products and processes.

HOW TO BECOME A CHEMICAL TECHNICIAN

Becoming a Chemical Technician typically involves a combination of education and hands-on experience. Here's a step-by-step guide:

1. Develop a strong foundation in chemistry, mathematics, and other sciences during secondary school.
2. Gain practical experience through internships or entry-level positions in laboratories or manufacturing settings.
3. Obtain relevant certifications in laboratory safety, specific analytical techniques, or quality control procedures.
4. Stay updated with the latest technologies and methodologies in chemical analysis and manufacturing processes.
5. Build a network within the industry by joining professional associations and attending scientific conferences.
6. Apply for Chemical Technician positions, highlighting both your technical skills and practical laboratory experience.

VOCATIONAL EDUCATION & TRAINING

For those seeking a practical, hands-on approach to becoming a Chemical Technician, Vocational Education and Training (VET) offers valuable pathways:

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

These courses provide practical skills in laboratory techniques, chemical analysis, and quality control, often including industry placements for real-world experience.

UNIVERSITY & HIGHER EDUCATION

While not always required, pursuing a university degree can provide a broader theoretical foundation and potentially open up more advanced career opportunities:

- Bachelor of Science (Chemistry)
- Bachelor of Applied Science
- Bachelor of Science (Laboratory Technology)

These degrees provide in-depth knowledge of chemical principles, analytical techniques, and laboratory management, often including research projects and industry internships.