

## Job Dashboard | QC Technician / QC Assistant / Laboratory Technician (1/2)

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Trends impacting this role				Impact Assessment
AI & Big Data	Autonomous Robots	Digitalisation	Food Packaging & Processing	 <b>MEDIUM</b> degree of change in tasks
Internationalisation	Internet of Things	Manufacturing Analytics		

### Responsibilities of the role **today**

Today, this job role supports process and product quality testing activities by preparing equipment and materials and assisting in the execution of tests to identify processes and products that do not meet specified requirements. The job holder conducts the laboratory tests to identify lapses in the production lines' conformance to food safety and hygiene standards and also assists in the management of the quality control (QC) laboratory by performing routine monitoring and maintenance of laboratory infrastructure and equipment, recording laboratory data and assisting in preparing the laboratory for audits.

Job tasks today	Impact at task-level / Future view of job tasks		Time horizon
Prepare samples and conduct tests on food quality and packaging for compliance with food safety and other requirements	M	<ul style="list-style-type: none"> <li>Intelligent automation, such as the use of autonomous robots, can be used to substitute manual tasks such as sample collection, freeing up time for the job holder to take on higher value-added tasks such as issue identification and resolution</li> <li>In addition, other technologies such as Internet of Things and enable to real-time data collection and monitoring of test batch results</li> <li>The rise of manufacturing analytics also requires the job holder to develop basic data analytics skills to generate insights from test results, and propose corrective actions to mitigate issues in food safety and quality</li> <li>As food manufacturers adopt new food packaging and processing technologies, the job holder will need to understand relevant requirements and conduct checks to ensure compliance</li> </ul>	<ul style="list-style-type: none"> <li>Medium-term</li> </ul>
Inspect in-coming and out-going raw materials and products and conduct daily QC inspections at production lines	M	<ul style="list-style-type: none"> <li>Digitalisation of processes and echnology solutions such as Internet of Things sensors, smart cameras, and Artificial Intelligence could be used to substitute QC inspections at production lines, reducing the reliance on manual effort to conduct theses checks</li> <li>This reduction in manual effort could allow job holders to supervise quality control issues for a larger production area and/or increased focus in issue resolution and identifying areas for improvement</li> </ul>	<ul style="list-style-type: none"> <li>Medium- to Long-term</li> </ul>
Assist in the inspection and monitoring of laboratory facility and perform routine maintenance of lab equipment	L	<ul style="list-style-type: none"> <li>Technology solutions such as Internet of Things sensors will allow for real-time monitoring of lab conditions and equipment, reducing manual effort required to conduct frequent physical checks of laboratory facilities</li> </ul>	<ul style="list-style-type: none"> <li>Short-term</li> </ul>
Assist to identify deviations in production quality and processes, and support the conduct of internal and external audits	L	<ul style="list-style-type: none"> <li>Technology solutions such as Internet of Things sensors, smart cameras, and Artificial Intelligence allow the job holder to better monitor production quality and processes</li> <li>The job holder will be required to perform data analytics and generate insights on product hazard and/or defect occurrences</li> </ul>	<ul style="list-style-type: none"> <li>Short-term</li> </ul>

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### Responsibilities of the role **in the future**

In the future, technologies such as autonomous robots, Internet of Things, and Artificial Intelligence will substitute manual tasks such as the collection of test samples and monitoring of facility conditions, enabling a greater efficiency in quality check processes and facility maintenance. The focus of this role will expand to overseeing quality checks across a larger production area, as well as analysing available data to derive insights on recurring issues, allowing the job holder to better identify necessary corrective actions.

### Technical Skills (TSC) Required

• Chemical Risk Management	Level 2	• Food Safety Analysis	Level 2
• Cleanliness Testing	Level 3	• Food Safety Management	Level 1
• Continuous Process Improvement	Level 3	• Good Manufacturing Practices Implementation	Level 3
• Document Control	Level 2	• Hazards and Risk Control, and Policy Management	Level 2
• Emergency Response Management	Level 2	• Innovation Management	Level 3

### Critical Core Skills (CCS) Required

• Collaboration	Basic	• Sense Making	Basic
• Problem Solving	Basic	• Communication	Basic