

## Process Engineer

**ESTIMATED TIME HORIZON:**  
Short- to Medium-Term\*[Contents](#)[Section Top](#)**Trends impacting this role**

- Digitalisation of work processes
- Innovation
- Food processing
- Productivity

**Other considerations**

- Companies who are looking to optimise production processes across manual and automated steps will be in need of this role, or the capabilities within it

**Responsibilities of the role**

This role is responsible for optimising Food Manufacturing processes by evaluating existing workflows, identify inefficiencies, and develop plans to improve process efficiencies. Ways to improve process efficiencies may include implementing new processes and/or technologies, removing unnecessary steps and modifying current workflows. Besides creating cost-effective and sustainable production workflows, the job holder should also ensure processes comply to regulatory requirements and internal protocols.

**Job Tasks**

- Work with different functions, primarily Production function to understand process pain points and use available data to interpret production performance and identify gaps for improvement, while analysing risks associated with different approaches of process changes and evaluating the associated costs and benefits of redesigning processes
- With a strong technical expertise and some level of Food Manufacturing industry knowledge, design and implement process and/or machinery optimisation, and support Production function for smooth transition to operations through training
- Stay abreast of changing regulatory requirements and propose operational policies, standards and procedures to ensure food production processes designed and/or redesigned comply with relevant standards
- Understand and evaluate latest technology trends and equipment for application to production processes, and adapt latest technology to improve processes when appropriate

**Technical Skills (TSC) Required**



- |  |                                     |
|--|-------------------------------------|
| • Change Management                            | • Manufacturing Process Management  |
| • Continuous Process Improvement               | • New Product Introduction for Food |
| • Data Analytics                               | • Operation Management              |
| • Embedded System Integration                  | • Process Monitoring                |
| • Emerging Technology                          | • Process Validation                |
| • Facility Design                              | • Quality Assurance Management      |
| • Food Manufacturing Process Design            | • Quality Control Management        |
| • Good Manufacturing Design and Implementation | • Quality Systems Management        |
| • Innovation Management                        | • Solutioning                       |
| • Internet of Things Management                | • Stakeholder Management            |
| • Lean Manufacturing                           | • Strategy Development              |

\*Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years | Long term: Beyond 5 years)

Process Engineer (cont'd)



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Technical Skills (TSC) Required (cont'd)

- Systems Thinking
- Technical Presentation
- Technology Application

Critical Core Skills (CCS) Required

- |                   |                   |                 |
|-------------------|-------------------|-----------------|
| • Adaptability    | • Collaboration   | • Communication |
| • Decision Making | • Problem Solving |                 |

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Incumbents from the following existing roles within the Food Manufacturing can be reskilled to fulfil this emerging role.

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JOB ROLE TO BE RESKILLED AND UPSKILLED	TRANSFERRABLE SKILLS	ADDITIONAL SKILLS TO DEVELOP
<div>Engineer / Engineering Manager / Maintenance Manager</div> <div>Production</div>	<ul style="list-style-type: none"><li>• Change Management</li><li>• Continuous Process Improvement</li><li>• Embedded System Integration</li><li>• Food Manufacturing Process Design</li><li>• Innovation Management</li><li>• Internet of Things Management</li><li>• Manufacturing Process Management</li><li>• New Product Introduction for Food</li><li>• Process Validation</li><li>• Stakeholder Management</li><li>• Strategy Development</li><li>• Systems Thinking</li><li>• Technical Presentation</li></ul>	<ul style="list-style-type: none"><li>• Data Analytics</li><li>• Emerging Technology</li><li>• Facility Design</li><li>• Good Manufacturing Design and Implementation</li><li>• Lean Manufacturing</li><li>• Operation Management</li><li>• Process Monitoring</li><li>• Solutioning</li><li>• Technology Application</li><li>• Quality Assurance Management</li><li>• Quality Control Management</li><li>• Quality Systems Management</li></ul>

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