

**SKILLS FRAMEWORK FOR FOOD SERVICES  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

|                                    |  |                |  |  |   |   |
|------------------------------------|--|----------------|--|--|---|---|
| <b>TSC Category</b>                | Innovation   |                |  |  |   |   |
| <b>TSC</b>                         | Sustainable Food Production Design   |                |  |  |   |   |
| <b>TSC Description</b>             | Design and implement sustainable food production policies, processes and initiatives within the organisation |                |  |  |   |   |
| <b>TSC Proficiency Description</b> | <b>Level 1</b>   | <b>Level 2</b> | <b>Level 3</b>   | <b>Level 4</b>   | <b>Level 5</b>  | <b>Level 6</b>  |
|                                    |  |                | <b>FSS-SPI-3012-1.1</b>  | <b>FSS-SPI-4012-1.1</b>  | <b>FSS-SPI-5012-1.1</b>   | <b>FSS-SPI-6012-1.1</b>   |
|                                    |  |                | Measure and collect data on waste, emissions and other elements using relevant equipment and discover alternatives to hazardous substances   | Facilitate the development of food production processes and initiatives that reduce waste and environmental impact, and conserve energy  | Evaluate sustainable food production processes and initiatives in accordance with organisation's sustainability strategy and values   | Formulate and establish the organisation's sustainable food production strategies and values  |
| <b>Knowledge</b>                   |  |                | <ul style="list-style-type: none"> <li>Types of environmentally-friendly food packaging</li> <li>National Environment Agency (NEA) regulations on pollution control related to food production</li> <li>Types of food waste</li> <li>Types of hazardous substances and potential causes of food contamination in food production processes</li> <li>Types of equipment used for measuring waste generation, emissions and other elements impacting the environment</li> <li>Procedures for operating equipment used for measuring waste, emissions and other elements impacting the environment</li> </ul> | <ul style="list-style-type: none"> <li>Types of ingredients from sustainable sources</li> <li>Legislative regulations and industry guidelines related to food production</li> <li>Methods to minimise ingredient and raw material waste and conserve energy and water used in food service processes</li> <li>Sustainability of ingredient sources, types of packaging, water usage and other food production-related factors</li> <li>New industry trends, technologies and innovations in / sustainable food production</li> <li>Best practices and trends in sustainable food production</li> <li>Pros, cons and applications of different</li> </ul> | <ul style="list-style-type: none"> <li>Cost and operational implications of sustainable food production processes</li> <li>Business impact of different sustainable food production initiatives and technologies in the industry</li> <li>Business case formulation techniques</li> </ul> | <ul style="list-style-type: none"> <li>Sustainability trends in food production methods</li> <li>Organisation's vision, mission and values</li> <li>Macro factors impacting the demand or need for environmentally-friendly operating processes</li> <li>Methods of establishing clean energy initiatives</li> <li>Principles of change management</li> <li>Methods of ensuring long-term sustainability of new processes</li> <li>Research and development (R&amp;D) processes in sustainable food production initiatives</li> </ul> |

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|                  |  |  | <ul style="list-style-type: none"> <li>• Methods of collecting and analysing data</li> <li>• Methods of conducting environmental modelling</li> </ul>  | <p>environmental modelling software and techniques</p>   |  |   |
| <b>Abilities</b> |  |  | <ul style="list-style-type: none"> <li>• Package food products using sustainable materials</li> <li>• Collaborate with stakeholders to collect relevant data according to business priorities</li> <li>• Operate emissions, performance parameters and waste measuring equipment as per the specified procedures and guidance</li> <li>• Apply appropriate data analysis tools and software to conduct environmental modelling</li> <li>• Conduct research on alternatives to hazardous substances</li> <li>• Identify areas of improvement for sustainable food production practices</li> </ul> | <ul style="list-style-type: none"> <li>• Recommend areas of improvement in sustainable food production initiatives</li> <li>• Procure food ingredients from sustainable sources</li> <li>• Formulate interventions to reduce waste and emissions</li> <li>• Guide the development of food production processes that reduce waste and environmental impact, or conserve energy</li> <li>• Select appropriate environmental modelling tools and software</li> <li>• Direct research and analysis of alternatives to hazardous substances</li> <li>• Collaborate with research and development (R&amp;D) function to identify alternative sources of ingredients, packaging materials and processes for greater sustainability</li> </ul> | <ul style="list-style-type: none"> <li>• Review the quality and quantity of sustainably-sourced raw materials in inventories</li> <li>• Assess the benefits and risks of sustainability programs</li> <li>• Evaluate feasibility and impact of different types of sustainable food production initiatives against any cost or operational implications</li> <li>• Facilitate the review of procedures and processes to align with food service initiatives</li> <li>• Evaluate process design parameters to suggest improvements to drive food production initiatives</li> <li>• Drive collaboration between research and development (R&amp;D) and food production functions to find environmentally-friendly solutions</li> <li>• Develop business cases for implementation of environmentally-friendly practices</li> </ul> | <ul style="list-style-type: none"> <li>• Formulate sustainable food production strategy aligned to organisation's mission, vision and values</li> <li>• Develop sustainable food production policies, processes and procedures to drive organisation's sustainable strategy</li> <li>• Establish priorities in sustainable food production and environmental impact management</li> <li>• Drive innovation in areas aligned to reduce the negative environmental impact of food production processes</li> </ul> |