

# Model Curriculum

**QP Name: Food Packaging Developer**

**QP Code: FIC/Q9302**

**QP Version: 1.0**

**NSQF Level: 5**

**Model Curriculum Version: 1.0**

Food Industry Capacity and Skill Initiative (FICSI)  
Shriram Bhartiya Kala Kendra (3rd Floor)  
1, Copernicus Marg, New Delhi 110001  
Phone: 9711260230

# Table of Contents

|  |    |
|--|----|
| Training Parameters.....   | 3  |
| Program Overview .....   | 4  |
| Training Outcomes.....   | 4  |
| Compulsory Modules .....   | 4  |
| Module Details.....  | 6  |
| Module 1: Introduction to food processing sector and the job of a ‘Food Packaging Developer’ ..... | 6  |
| Module 2: Prepare for developing packaging material .....  | 7  |
| Module 3: Perform testing of packaging material.....   | 9  |
| Module 4: Basic Food Safety Standards.....   | 10 |
| Module 5: Follow Preventive Measures to avoid Accidents.....                                       | 12 |
| Module 6: Manage Workplace Emergencies .....   | 13 |
| Module 7: Manage Infection Control .....   | 14 |
| Module 8: Working Effectively in an Organization .....   | 17 |
| Module 9: Material Conservation .....  | 17 |
| Module 10: Energy/Electricity Conservation .....   | 19 |
| Module 11: Waste Management/Recycling .....  | 19 |
| Module 12: Employability and Entrepreneurship Skills.....  | 21 |
| Annexure.....  | 23 |
| Trainer Requirements .....   | 23 |
| Assessor Requirements.....   | 23 |
| Assessment Strategy.....   | 24 |
| References .....   | 26 |
| Glossary.....  | 25 |
| Acronyms and Abbreviations .....   | 27 |

## Training Parameters

|   |   |
|---|---|
| <b>Sector</b>   | Food Processing   |
| <b>Sub-Sector</b>                                       | Generic   |
| <b>Occupation</b>                                       | Research and Development  |
| <b>Country</b>  | India   |
| <b>NSQF Level</b>                                       | 5   |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/NIL  |
| <b>Minimum Educational Qualification and Experience</b> | 1. Bachelor's degree in Microbiology/Foodtechnology/Biotechnology or allied disciplines + 1 Year of relevant experience<br>2. Class 12th pass in science stream and 3 years of diploma in relevant stream + 1 Year of relevant experience |
| <b>Pre-Requisite License or Training</b>                | NA  |
| <b>Minimum Job Entry Age</b>                            | 21 years  |
| <b>Last Reviewed On</b>                                 | 20/09/21  |
| <b>Next Review Date</b>                                 | 20/09/24  |
| <b>NSQC Approval Date</b>                               |   |
| <b>QP Version</b>                                       | 1.0   |
| <b>Model Curriculum Creation Date</b>                   | 20/09/21  |
| <b>Model Curriculum Valid Up to Date</b>                | 20/09/24  |
| <b>Model Curriculum Version</b>                         | 1.0   |
| <b>Minimum Duration of the Course</b>                   | 400 Hours   |
| <b>Maximum Duration of the Course</b>                   | 400 Hours   |

## Program Overview

This section summarizes the end objectives of the program along with its duration.

### Training Outcomes

At the end of the program, the participants will be able to:

- Perform activities to prepare for packaging development.
- Perform various preparatory and packaging development tasks as per SOP.
- Perform various tasks to test the packaging material.
- Apply necessary health and safety practices to ensure food safety and personal hygiene
- Work with various organisational departments effectively
- Use resources at the workplace optimally

### Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details  | Theory Duration | Practical Duration | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration |
|---|-----------------|--------------------|--|--|----------------|
| <b>Bridge Module</b>  | <b>32:00</b>    | <b>12:00</b>       | <b>00:00</b>                             | <b>00:00</b>                               | <b>44:00</b>   |
| Module 1: Introduction to food processing sector and the job of a "Food Packaging Developer"                          | 04:00           | 00:00              | 00:00                                    | 00:00                                      | 04:00          |
| Module 12: Employability and Entrepreneurship Skills  | 28:00           | 12:00              | 00:00                                    | 00:00                                      | 40:00          |
| <b>FIC/N9303: Prepare for developing packaging material</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 5</b>    | <b>40:00</b>    | <b>76:00</b>       | <b>00:00</b>                             | <b>00:00</b>                               | <b>116:00</b>  |
| Module 2: Prepare for developing packaging material   | 40:00           | 76:00              | 00:00                                    | 00:00                                      | 116:00         |
| <b>FIC/N9304: Perform tasks for testing packaging material</b><br><b>NOS Version No.: 1.0</b><br><b>NSQF Level: 5</b> | <b>66:00</b>    | <b>80:00</b>       | <b>00:00</b>                             | <b>00:00</b>                               | <b>146:00</b>  |
| Module 3: Perform testing of packaging material   | 66:00           | 80:00              | 00:00                                    | 00:00                                      | 146:00         |
| <b>FIC/N9904 – Ensure Food Safety at the Workplace</b>  | <b>08:00</b>    | <b>08:00</b>       | <b>00:00</b>                             | <b>00:00</b>                               | <b>16:00</b>   |

|  |               |               |              |              |               |
|--|---------------|---------------|--------------|--------------|---------------|
| <b>NOS Version No. 1.0</b><br><b>NSQF Level 5</b>  |               |               |              |              |               |
| Module 4: Basic Food Safety Standards  | 08:00         | 08:00         | 00:00        | 00:00        | 16:00         |
| <b>FIC/N9903 – Ensure Workplace Health and Safety</b><br><b>NOS Version No. 1.0</b><br><b>NSQF Level 5</b>             | <b>10:00</b>  | <b>16:00</b>  | <b>00:00</b> | <b>00:00</b> | <b>26:00</b>  |
| Module 5: Follow Preventive Measures to avoid Accidents  | 02:00         | 04:00         | 00:00        | 00:00        | 06:00         |
| Module 6: Manage Workplace Emergencies   | 04:00         | 08:00         | 00:00        | 00:00        | 12:00         |
| Module 7: Manage Infection Control   | 04:00         | 04:00         | 00:00        | 00:00        | 08:00         |
| <b>FIC/N9902 – Work Effectively in an Organization</b><br><b>NOS Version No. 1.0</b><br><b>NSQF Level 3</b>            | <b>08:00</b>  | <b>08:00</b>  | <b>00:00</b> | <b>00:00</b> | <b>16:00</b>  |
| Module 8: Working Effectively in an Organization   | 08:00         | 08:00         | 00:00        | 00:00        | 16:00         |
| <b>SGJ/N1702 – Optimize Resource Utilization at the Workplace</b><br><b>NOS Version No. 1.0</b><br><b>NSQF Level 3</b> | <b>12:00</b>  | <b>24:00</b>  | <b>00:00</b> | <b>00:00</b> | <b>36:00</b>  |
| Module 9: Material Conservation  | 04:00         | 08:00         | 00:00        | 00:00        | 12:00         |
| Module 10: Monitor Health and Safety Standard  | 04:00         | 08:00         | 00:00        | 00:00        | 12:00         |
| Module 11: Waste Management Recycling  | 04:00         | 08:00         | 00:00        | 00:00        | 12:00         |
| <b>Total Duration</b>  | <b>176:00</b> | <b>224:00</b> | <b>00:00</b> | <b>00:00</b> | <b>400:00</b> |

# Module Details

## Module 1: Introduction to food processing sector and the job of a 'Food Packaging Developer'

### Bridge Module

#### Terminal Outcomes:

- State the importance of an Food Packaging Developers in a food processing industry.
- Discuss the roles and responsibilities of a Food Packaging Developer in a food processing industry

|   |   |
|---|---|
| <b>Duration:</b> 04:00  | <b>Duration:</b> 00:00                              |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>            |
| <ul style="list-style-type: none"> <li>• Explain the roles and responsibilities of a Food Packaging Developer in a food processing industry.</li> <li>• Discuss the future trends and career growth opportunities available to a Food Packaging Developer.</li> <li>• Discuss the significance of a Food Packaging Developers to ensure smooth operations in the food processing industry.</li> <li>• List various food packaging development activities that are performed in the job.</li> <li>• List the various terminologies used in carrying out food packaging development activities in food processing industry.</li> <li>• Discuss the organisational policies to be followed pertaining to the delivery standards, health, safety and hazard handling procedures, integrity, dress code, etc.</li> </ul> | <ul style="list-style-type: none"> <li>•</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.  |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Nil   |   |

## Module 2: Prepare for developing packaging material

### Mapped to FIC/N9303, v1.0

#### Terminal Outcomes:

- List the pre-requisites for product packaging development process.
- Perform various tasks to prepare for packaging development.

|  |   |
|--|---|
| <b>Duration: 40:00</b>   | <b>Duration: 76:00</b>  |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the types of packaging equipment required during work.</li> <li>• Describe functioning of each packing equipment and the selection criteria of packaging equipment and material for packaging work.</li> <li>• Describe key packaging parameters i.e. grammage, compressibility strength, seal strength, etc. and their impact on the packaging.</li> <li>• Discuss basic packaging specifications, requirements and properties of packaging material.</li> <li>• Describe critical limits of the packaging material suitable to the food type.</li> <li>• List the steps to be performed for identifying and signing off the vendors for packaging material purchase as per the requirement.</li> <li>• Elaborate ways to collaborate with the external stakeholders to explore new ideas.</li> <li>• Discuss the need of alternate vendor development for each packing RM.</li> <li>• List the preparatory steps for testing process and the steps to be performed for calibrating and checking the equipment and packing instruments before use.</li> <li>• Describe test sheet of packing material.</li> </ul> | <ul style="list-style-type: none"> <li>• Show how to select the desired packaging equipment and material for packaging work.</li> <li>• Demonstrate functioning and use of packaging equipment i.e. Air pillow machine, Carton sealers, Bursting Strength machine, etc.</li> <li>• Apply appropriate ways to ensure that packaging specifications meet the requirements of regulatory client and company.</li> <li>• Show how to identify the demand of packaging material by coordinating with marketing and purchasing department.</li> <li>• Demonstrate procedure to benchmark the competitive packs with current packs.</li> <li>• Demonstrate organisational procedure of identifying and signing off the vendors as per packaging material requirements.</li> <li>• Prepare a sample plan for the risk assessment of packaging material before execution of testing process.</li> <li>• Demonstrate organisational procedure of receiving and registering samples for testing.</li> <li>• Apply appropriate ways to calibrate and check the equipment and packing instruments before use.</li> <li>• Show how to set the parameters of packaging equipment as per the product requirement.</li> <li>• Prepare sample test sheet for each packing material by following organisational guidelines.</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Safety gloves, Face mask, Safety shoes, Safety hat, Apron, Hot Air Oven, Leak Test Apparatus, Grip Test Apparatus, Moisture analysis by – Digital Moisture meter, Bursting Strength Tester, Top Load Tester / Crush Resistance tester, Vernier Gauge, Box Compression Tester, Dart Impact Tester, Digital Thickness Gauge, Weighing Machine, Cobb Tester, smoothness tester  |   |

## Module 3: Perform testing of packaging material

### Mapped to FIC/N9304, v1.0

#### Terminal Outcomes:

- Perform various tasks involved in testing of packaging material.
- Perform post testing activities such as waste disposal, cleaning, storing etc.

| Duration: 66:00  | Duration: 80:00  |
|--|--|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• List the steps to be performed for conducting trails of packaging material and the steps for conducting various physical and chemical tests on packaging material.</li> <li>• Describe various defects in packaging material and their impact on the product.</li> <li>• List the steps to be performed for developing packaging material of different designs.</li> <li>• List the steps to be performed for shelf life study of packaging material to check its suitability with the food product.</li> <li>• Describe FSSAI guidelines for the packaging requirements of some specific products like Milk and milk products, edible oil/fat, fruits and vegetables, canned meat, drinking water, etc.</li> <li>• State the importance of Importance of labelling and information to be mentioned on the product labels.</li> <li>• Discuss the need of mentioning list of ingredients with the required details as per the sequence set up by FSSAI on the label.</li> <li>• Elaborate Legal Metrology Act, 2009 of standard weights and measures requirements for different food products.</li> <li>• Discuss the documents and records needed to be prepared and maintained related to the different stages of food product packaging development process.</li> <li>• Describe the methods used for safe disposal of waste material from the food processing workplace.</li> <li>• Discuss the organisational procedure of cleaning, storing and maintaining the test equipment after completion of work.</li> </ul> | <ul style="list-style-type: none"> <li>• Apply appropriate ways to conduct trails of packaging material to check its suitability with the food product and verify that it is meeting the organisational requirements.</li> <li>• Perform steps to conduct various physical tests (compression test, tensile test, drop test, heat seal integrity, etc.) and chemical tests (pH, alkalinity, compatibility test, etc.) on packaging material.</li> <li>• Show how to monitor the equipment throughout the process to detect any non-conformity.</li> <li>• Apply appropriate ways to develop packaging material of different designs as per the product integrity and by following SOP/WI.</li> <li>• Role play a situation on how to coordinate with operators and other departments to ensure packaging process is effective and efficient.</li> <li>• Show how to check gross margin of new proposed packing material by coordinating with the SCM team.</li> <li>• Dramatize a situation on how to coordinate with art work team for any changes in artwork on the packaging material.</li> <li>• Show how to set procedure to identify, rectify and report non-complaint packaging material and accept or reject packaging material by following organisational guidelines.</li> <li>• Perform steps to conduct accelerated shelf life study of packaging material to check its suitability with the food product.</li> <li>• Apply appropriate ways to maintain the aesthetic appeal of the product in the packaging material.</li> <li>• Employ practices to check the packaging requirements of some specific products like Milk and milk products, edible oil/fat, fruits and vegetables, canned meat, drinking</li> </ul> |



|   |   |
|---|---|
|   | <p>water, etc. meets the legal requirements and FSSAI guidelines.</p> <ul style="list-style-type: none"> <li>• Prepare sample records related to the food product packaging development process. such as packaging material specifications, vendor sign off, transit trials, packaging material trials, etc.</li> <li>• Show how to dispose waste material safely as per organisational and environmental guidelines.</li> <li>• Show how to shut down all the equipment safely.</li> <li>• Demonstrate organizational procedure of cleaning, storing and maintaining the test equipment after completion of work.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook   |   |
| <b>Tools, Equipment and Other Requirements</b>  |   |
| Safety gloves, Face mask, Safety shoes, Safety hat, Apron, Hot Air Oven, Leak Test Apparatus, Grip Test Apparatus, Moisture analysis by – Digital Moisture meter, Bursting Strength Tester, Top Load Tester / Crush Resistance tester, Vernier Guage, Box Compression Tester, Dart Impact Tester, Digital Thickness Gauge, Weighing Machine, Cobb Tester, smoothness tester |   |

## Module 4: Basic Food Safety Standards

### Mapped to FIC/N9904, v1.0

#### Terminal Outcomes:

- Explain the various food safety standards to be followed during the production process
- Prepare sample reports regarding food safety regulations, inspections, faults observation, etc.

|   |   |
|---|---|
| <b>Duration: 08:00</b>  | <b>Duration: 08:00</b>  |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the types of biological, chemical and physical hazards present in the food processing industry</li> <li>• Discuss various types of food contaminations, their causes, and ways to prevent them</li> <li>• Discuss the importance of following the standard procedures for ensuring food safety)</li> <li>• State the importance of ensuring that the materials (such as raw materials, processed materials, finished goods, etc.) are adequately isolated to prevent them from contamination</li> <li>• Outline the standard regulations to be followed for ensuring food safety as listed in 'The Food Safety and Standards Act, 2006 that need to be followed during production</li> <li>• Discuss the role of HACCP, VACCP and TACCP as well as procedures to implement these in the food industry</li> <li>• Discuss about product information and consumer awareness, product recall and withdrawal, and traceability</li> <li>• Explain the procedure to conduct workplace food safety audits</li> <li>• Discuss various types of allergens and their management at the workplace</li> <li>• Discuss the corrective measures to be applied to ensure food safety</li> <li>• List various issues that can arise during food production and other processes</li> <li>• Discuss the procedure of performing root cause analysis and taking corrective and preventive actions against workplace problems</li> <li>• State the significance of training the team members regarding various food</li> </ul> | <ul style="list-style-type: none"> <li>• Apply appropriate practices to identify various biological, chemical, and physical hazards at various stages (procurement of raw material; production, manufacturing, distribution, delivery of finished product, etc.) of food processing</li> <li>• Employ appropriate practices to implement food safety procedures and regulatory policies at the workplace</li> <li>• Employ appropriate practices to establish and follow Good Manufacturing Practices (GMPs) related to ergonomics, cleaning and sanitation, equipment and containers, pest control, facilities, food storage, transportation, distribution etc.</li> <li>• Demonstrate the procedure followed for allergen management and handling and storage of raw materials</li> <li>• Apply appropriate practices to establish and follow monitoring systems, like Hazard Analysis Critical Control Point (HACCP)</li> <li>• Apply relevant practices to take appropriate action in instances such as VACCP (Vulnerability Assessment Critical Control Points) and TACCP (Threat Assessment Critical Control Points)</li> <li>• Apply appropriate practices to plan and execute an audit on food safety address the non-conformance with root cause analysis (RCA), and take corrective action preventive action (CAPA)</li> <li>• Role play a situation on how to address issues pertaining to food safety and quality reported by the team members</li> <li>• Prepare sample reports for food safety regulations followed, inspections done, faults observed, etc.</li> </ul> |

|  |  |
|--|--|
| <p>safety procedures such as GMP, HACCP, etc.</p> <ul style="list-style-type: none"> <li>List the information to be recorded in the work process</li> </ul>                | <ul style="list-style-type: none"> <li>Dramatize a situation on how to organize training and workshops on food safety aspects such as Good Manufacturing Practices (GMP), HACCP, VACCP, TACCP, etc.</li> </ul> |
| <b>Classroom Aids:</b>   |  |
| Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop, Presentation, Participant Handbook and Related Standard Operating Procedures          |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Sample pictures of various biological, chemical, and physical hazards, Sample pictures of Contaminants, samples of potential allergens, process flow chart and HACCP plan. |  |

## Module 5: Follow Preventive Measures to avoid Accidents

*Mapped to FIC/N9903, v1.0*

### Terminal Outcomes:

- Explain the standard procedure to be followed for dealing with workplace hazards safely
- Describe how to minimize potential risks and accidents at the workplace
- Demonstrate how to train the workforce on accident prevention techniques effectively

| Duration: 02:00   | Duration: 04:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Define 'hazards' and 'risks'</li> <li>• Discuss the causes of various types of workplace hazards, risks and accidents, preventive measures to be taken as well as the procedures to deal with the same</li> <li>• State the importance of maintaining the equipment effectively</li> <li>• Discuss the standard practices to be followed to control and prevent risks, hazards, and accidents</li> <li>• Discuss the various types of safety signs and their relevance at the workplace</li> <li>• State the significance of displaying the common hazard signages wherever required</li> <li>• Outline the importance of ensuring the availability of general health and safety equipment at all times</li> <li>• Describe the causes of fire, ways to prevent them and rescue techniques to be followed at times of fire at the workplace</li> <li>• Outline the purpose and usage of various Personal Protective Equipment (PPE) required at the workplace</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate how to use and dispose of relevant personal protective equipment as per tasks and work conditions</li> <li>• Show how to implement organisational safety protocols to prevent accidents and hazards at the workplace</li> <li>• Demonstrate how to use various types of fire extinguishers effectively Dramatize a situation on how to train the workforce on accident prevention techniques (such as role of appropriate PPE; use of fire extinguishers, dealing with hazards; identification of risks that could lead to accidents; safety protocols followed to avoid accidents; role of different types of hazard signs, safe lifting and carrying practices, etc. required at the workplace</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop, Presentation, Participant Handbook and Related Standard Operating Procedures   |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Personal Protection Equipment: Safety glasses, Head protection, Rubber gloves, Safety footwear, Warning signs and tapes, Fire extinguisher, First aid kit, Relevant Standard Operating Procedures and Sample reports  |  |

## Module 6: Manage Workplace Emergencies

*Mapped to FIC/N9903, v1.0*

### Terminal Outcomes:

- Apply appropriate practices to deal with the emergencies at workplace effectively
- Describe the trainings to be provided for dealing with emergencies at the workplace

| Duration: 04:00  | Duration: 08:00  |
|--|--|
| Theory – Key Learning Outcomes   | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Discuss workplace emergency and evacuation procedures and the importance of following them</li> <li>• Explain the procedure to be followed for administering immediate first aid to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning, etc.</li> <li>• Discuss the procedure to be followed for providing artificial respiration and cardio-pulmonary resuscitation (CPR) to the affected person and highlight its significance</li> <li>• State the impact of health, safety and security breaches on self, team, and work process</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the procedure to be followed to free a person from electrocution safely</li> <li>• Show how to administer appropriate first aid procedure to victims in case of cuts, bleeding, burns, choking, electric shock, poisoning, etc.</li> <li>• Demonstrate the procedure e followed provide artificial respiration and cardio-pulmonary resuscitation (CPR) in various instances (e.g., cardiac arrest)</li> <li>• Roleplay a situation on how to report information such as identified breaches in health, safety and security policies and procedures to the concerned authority accurately</li> <li>• Dramatize a situation on how to train the workforce on emergency procedures (such as safe evacuation; treating a person from electrocution; immediate first aid to be given at times of cuts, bleeding, burns, choking, electric shock, poisoning, etc.; administering artificial respiration and cardio-pulmonary resuscitation (CPR); escalating issues beyond own scope, etc.) to be followed at the workplace</li> </ul> |
| <b>Classroom Aids:</b>   |  |
| Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop, Presentation, Participant Handbook and Related Standard Operating Procedures  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Personal Protection Equipment: Safety glasses, Head protection, Rubber gloves, Safety footwear, Warning signs and tapes, Fire extinguisher, First aid kit, Relevant Standard Operating Procedures and Sample reports   |  |

## Module 7: Manage Infection Control

### Mapped to FIC/N9903, v1.0

#### Terminal Outcomes:

- Describe the various steps to be followed for managing infections at the workplace
- Perform various tasks to train the workforce on infection control practices effectively

|  |   |
|--|---|
| <b>Duration:</b> 04:00   | <b>Duration:</b> 04:00  |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the general sources of infections</li> <li>• Discuss the procedures to be followed to tackle infection spread and the importance of carrying out the sanitization of the work area, equipment and related facilities as per standards</li> <li>• Explain various ways to store the sanitization materials appropriately</li> <li>• Discuss various types of potential infections along with the precautionary measures to be taken, and safety protocols to be followed at the workplace</li> <li>• Discuss appropriate actions to be taken during illness to self and others at the workplace</li> <li>• Describe the parameters to be assessed during health and safety audits, their acceptability levels of appropriateness and the procedure to conducting these audits</li> <li>• Discuss various parameters to be assessed and compliance issues to be addressed during the review of SOPs and the ways to improve them as per required quality and safety standards</li> <li>• State the importance of undergoing preventive health check-ups organized by the organisation in compliance with FSSAI guidelines</li> <li>• List various types of documents and records to be maintained in the work process</li> </ul> | <ul style="list-style-type: none"> <li>• Employ appropriate practices to follow and enforce Good Hygiene Practices (GHP) among the team members</li> <li>• Employ appropriate practices to store sanitisation materials effectively</li> <li>• Dramatize a situation to address team issues related to workplace health and safety Roleplay on how to train the workforce on infection control practices to be followed at the workplace</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Training kit (Trainer guide, Presentations), White board, Marker, Projector, Laptop, Presentation, Participant Handbook and Related Standard Operating Procedures  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Relevant Standard Operating Procedures and Sample reports  |   |

## Module 8: Working Effectively in an Organization

*Mapped to FIC/N9902, v1.0*

### Terminal Outcomes:

- State the importance of proper communication and teamwork at the workplace
- Roleplay a situation to communicate with others effectively

| Duration: 08:00   | Duration: 08:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Discuss the applicable organisational quality procedures and processes for working effectively in a team</li> <li>• Elucidate the legislations, standards, policies, and procedures followed in the organization relevant to employment, behaviour, harassment, discrimination, and performance conditions</li> <li>• State the importance of well-defined reporting structure in an organisation.</li> <li>• List the various types of inter-dependent functions applicable in the job</li> <li>• Discuss the different types of harassment and discrimination based on gender, disability, caste, religion, and culture</li> <li>• List the key factors that aid in prioritising tasks</li> <li>• Discuss the components of effective communication and its importance at the workplace</li> <li>• State the impact of poor communication on the employee, the employer, and the customer</li> <li>• State the importance of teamwork in organizational and individual success.</li> <li>• Discuss the importance of ethics and discipline for professional success</li> <li>• Explain the ways to address grievances appropriately and effectively</li> <li>• Discuss the importance of managing interpersonal conflicts effectively and ways to do so</li> <li>• List the different types of disabilities and the challenges faced by persons with disability (PwD)</li> <li>• Discuss the applicable laws, acts and provisions defined for PwD by the statutory bodies</li> </ul> | <ul style="list-style-type: none"> <li>• Roleplay a situation on how to obtain information, seek clarifications, reciprocate understanding and provide information accurately and clearly</li> <li>• Roleplay a situation on how to use inclusive language (verbal, non-verbal and written) that is gender, disability and culturally sensitive while interacting with others</li> <li>• Show how to consult and assist others to maximize effectiveness and efficiency at work</li> <li>• Dramatize a situation to show how to escalate problems and grievances beyond own scope to the concerned authority</li> <li>• Roleplay a situation on how to take appropriate action to resolve conflicts at the workplace</li> <li>• Roleplay a situation on how to report incidents of harassment and discrimination to appropriate authority</li> </ul> |

- State the importance of gender sensitivity and equality
- Discuss the applicable legislations, grievance redressal mechanisms, and penalties against harassment at the workplace
- State the importance of transacting with others without personal bias

**Classroom Aids:**

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook

**Tools, Equipment and Other Requirements**

Nil



## Module 9: Material Conservation

*Mapped to SGJ/N1702, v1.0*

### Terminal Outcomes:

- Discuss optimal usage of material including water in various tasks/activities/processes

|  |   |
|--|---|
| <b>Duration: 04:00</b>   | <b>Duration: 08:00</b>  |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the types of hazards, risks and threats associated with handling different materials</li> <li>• Discuss the role of workstation layout, electrical and thermal equipment used in the material conservation</li> <li>• Discuss organisational procedures for minimising waste</li> <li>• Elucidate practices of efficient and inefficient management and utilization of material and water at the workplace</li> <li>• Discuss the ways to manage material and water usage at work effectively</li> </ul> | <ul style="list-style-type: none"> <li>• Show how to check for spills and leakages in various materials applicable in the job</li> <li>• Demonstrate how to plug the spills and leakages appropriately</li> <li>• Roleplay a situation on how to escalate any issues related to repair of spills and leakages to the concerned authority effectively</li> <li>• Demonstrate the standard practices to be followed for cleaning tools, machines and equipment effectively</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Materials and tools and equipment used at work   |   |

## Module 10: Energy/Electricity Conservation

*Mapped to SGJ/N1702, v1.0*

### Terminal Outcomes:

- Discuss optimal usage of energy/electricity

|   |  |
|---|--|
| <b>Duration:</b> 04:00  | <b>Duration:</b> 08:00   |
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Define electricity</li><li>• Discuss the basics of electricity</li><li>• List the energy efficient devices that are used in the job</li><li>• Discuss the ways to identify electrical problems that can arise during work</li><li>• Discuss the standard practices to be followed for conserving electricity in the job</li><li>• State the impact of improperly connected electrical equipment and appliances on the tasks being performed</li></ul> | <ul style="list-style-type: none"><li>• Apply suitable techniques to check the equipment/machinery for desired level of functioning</li><li>• Employ appropriate methods to rectify faulty equipment/machinery safely</li><li>• Roleplay a situation on how to report equipment faults and maintenance lapses to the concerned personnel effectively</li></ul> |
| <b>Classroom Aids:</b>  |  |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook   |  |
| <b>Tools, Equipment and Other Requirements</b>  |  |
| Energy saving devices   |  |

## Module 11: Waste Management/Recycling

### Mapped to SGJ/N1702, v1.0

#### Terminal Outcomes:

- Discuss the importance of minimal waste generation
- Demonstrate how to dispose waste as per industry approved standards

|  |   |
|--|---|
| <b>Duration:</b> 04:00   | <b>Duration:</b> 08:00  |
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the various types of recyclable, non-recyclable, and hazardous waste</li> <li>• State the significance of different coloured dustbins</li> <li>• List the different types of waste to be segregated</li> <li>• State the importance of waste management</li> <li>• Discuss the standard methods for waste disposal</li> <li>• List the sources of pollution.</li> <li>• Discuss the ways to minimise various types of pollution</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrate the standard practices to be followed for segregating waste into respective categories</li> <li>• Show how to dispose non-recyclable waste appropriately and safely</li> <li>• Demonstrate the standard practice for depositing recyclable and reusable materials at designated place</li> <li>• Show how to dispose hazardous waste safely and appropriately</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Non-recyclable, recyclable waste bins  |   |

## Module 12: Employability and Entrepreneurship skills

### Bridge Module

#### Terminal Outcomes:

- Describe the traits of individual at workplace
- Demonstrate apply employability and entrepreneurship skills at workplace

| Duration: 28:00   | Duration: 12:00  |
|---|--|
| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Discuss own strengths and weaknesses and analyse the gaps to ensure continuous improvement.</li> <li>• Discuss the measures to be undertaken to utilise time effectively thereby achieving maximum productivity.</li> <li>• List the characteristics of innovative individuals</li> <li>• List the levels of Maslow Hierarchy of needs</li> <li>• List the traits of effective team</li> <li>• Discuss tips for stress management</li> <li>• Discuss the importance of good work ethics</li> <li>• Discuss how to manage an enterprise</li> <li>• Describe how to plan effective strategies for solving problems and improving work culture within the team.</li> <li>• List the various types of digital marketing techniques.</li> <li>• Discuss the types and importance of e-commerce in promoting businesses.</li> <li>• List the various types of online banking services being used widely.</li> <li>• Discuss the procedure to apply for bank finances</li> <li>• List the elements of a proposal to attract future business opportunities and prospective clients.</li> <li>• Explain how to conduct entrepreneurial programs to identify business opportunities, generate employment and increase clientele.</li> <li>• Understand the make in India campaign</li> <li>• Discuss the importance of Swachh Bharat Abhiyan</li> <li>• Understand the importance of entrepreneurship</li> <li>• Describe the traits of successful entrepreneur</li> <li>• List the types of enterprises</li> <li>• Understand the importance of effective speaking and listening</li> </ul> | <ul style="list-style-type: none"> <li>• Show how to analyse a situation to identify gaps for improving the work process.</li> <li>• Demonstrate the procedure to plan the time taken to perform various tasks effectively.</li> <li>• Describe how market research is carried out</li> <li>• Role play the characteristics of an effective entrepreneur and leader</li> <li>• Demonstrate on how to identify new business opportunities</li> <li>• Prepare a sample plan to solve problems and improve productivity at the workplace.</li> <li>• Demonstrate the procedure to operate a computer for digital marketing, e-commerce, branding, etc.</li> <li>• Show how to use services such as NEFT, IMPS, UPI, RTGS for online banking.</li> </ul> |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Discuss the importance of problem solving</li> <li>• Discuss how to deal with failures</li> <li>• Describe the core keys of marketing</li> <li>• Discuss ways to manage risks at workplace</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| White board/Chart papers, marker.  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| NIL  |  |

# Annexure

## Trainer Requirements

| Trainer Prerequisites  |  |                              |                          |                     |  |         |
|--|--|------------------------------|--------------------------|---------------------|--|---------|
| Minimum Educational Qualification<br><i>&lt;Select the minimum educational requirements, such as 12<sup>th</sup> Pass, Graduate or NSQF certified.&gt;</i> | Specialization<br><i>&lt;Specify the areas of specialization that are desirable.&gt;</i> | Relevant Industry Experience |                          | Training Experience |  | Remarks |
|  |  | Years                        | Specialization           | Years               | Specialization                                       |         |
| Graduate   | Food Science   | 4                            | Research and Development | 1                   | Training individuals on new food product development |         |

| Trainer Certification  |  |
|--|--|
| Domain Certification   | Platform Certification   |
| Certified for Job Role: "Food Packaging Developer" mapped to QP: "FIC/Q9302, v1.0". Minimum accepted score is 80%. | Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q2601". Minimum accepted score as per MEPSC guidelines is 80%. |

## Assessor Requirements

| Assessor Prerequisites   |  |                              |                          |                                |   |         |
|--|--|------------------------------|--------------------------|--------------------------------|---|---------|
| Minimum Educational Qualification<br><i>&lt;Select the minimum educational requirements, such as 12<sup>th</sup> Pass, Graduate or NSQF certified.&gt;</i> | Specialization<br><i>&lt;Specify the areas of specialization that are desirable.&gt;</i> | Relevant Industry Experience |                          | Training/Assessment Experience |   | Remarks |
|  |  | Years                        | Specialization           | Years                          | Specialization  |         |
| Graduate   | Food Science   | 3                            | Research and Development | 1                              | Assessing individuals on new food product development |         |

| Assessor Certification   |  |
|--|--|
| Domain Certification   | Platform Certification   |
| Certified for Job Role: "Food Packaging Developer" mapped to QP: "FIC/Q9302, v1.0". Minimum accepted score is 80%. | Recommended that the Assessor is certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701". Minimum accepted score as per MEPSC guidelines is 80%. |

## Assessment Strategy

This section includes the processes involved in identifying, gathering and interpreting information to evaluate the learner on the required competencies of the program.

Assessment will be based on the concept of Independent Assessors empanelled with Assessment Agencies, identified, selected, trained and certified on Assessment techniques. These assessors would be aligned to assess as per the laid down criteria.

Assessment Agency would conduct assessment only at the training centres of Training Partner or designated testing centers authorized by FICSI.

Ideally, the assessment will be a continuous process comprising of three distinct steps:

- A. Mid- term assessment
- B. Term / Final Assessment

Each National Occupational Standard (NOS) in the respective QPs will be assigned weightage. Therein each Performance Criteria in the NOS will be assigned marks for theory and / or practical based on relative importance and criticality of function.

This will facilitate preparation of question bank / paper sets for each of the QPs. Each of these papers sets / question bank so created by the Assessment Agency will be validated by the industry subject matter experts through FICSI, especially with regard to the practical test and the defined tolerances, finish, accuracy etc.

The following tools are proposed to be used for final assessment:

- I. **Written Test:** This will comprise of
  - a. True / False Statements
  - b. Multiple Choice Questions
  - c. Matching Type QuestionsOnline system for this will be preferred.
- II. **Practical Test:** This will comprise a test job to be prepared as per project briefing following appropriate working steps, using necessary tools, equipment and instruments. Through observation it will be possible to ascertain candidate's aptitude, attention to details, quality consciousness etc. The end product will be measured against the pre-decided MCQ filled by the Assessor to gauge the level of his skill achievements.
- III. **Structured Interview:** This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand.



## Glossary

| Term                         | Description   |
|------------------------------|---|
| <b>Declarative Knowledge</b> | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.   |
| <b>Key Learning Outcome</b>  | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| <b>OJT (M)</b>               | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site  |
| <b>OJT (R)</b>               | On-the-job training (Recommended); trainees are recommended the specified hours of training on site   |
| <b>Procedural Knowledge</b>  | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.  |
| <b>Training Outcome</b>      | Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.  |
| <b>Terminal Outcome</b>      | Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.   |

## Acronyms and Abbreviations

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standards         |
| FIFO | First In First Out                      |
| FEFO | First Expire First Out                  |
| GMP  | Good Manufacturing Practices            |
| GHP  | Good Hygiene Practices                  |
| CPR  | Cardiopulmonary Resuscitation           |
| ETP  | Effluent Treatment Plant                |