Model Curriculum

QP Name: Multi Skill Technician (Food Processing)

QP Code: FIC/Q9007

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

Food Industry Capacity and Skill Initiative (FICSI)
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Training Parameters

Sector	Food Processing
Sub-Sector	Fruits and Vegetables, Bread & Bakery, Packaged Food
Occupation	Processing
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7412.15
Minimum Educational Qualification and Experience	1. Class 12th passed in any stream 2. Class 10th passed and 2 years course in any stream 3. Class 10th passed and 2 years of experience 4. Class 10th passed and 2 years of ITI
Pre-Requisite License or Training	Not Applicable
Minimum Job Entry Age	18 years
Last Reviewed On	30/07/2021
Next Review Date	29/07/2024
NSQC Approval Date	19/04/2017
QP Version	1.0
Model Curriculum Creation Date	05/05/2017
Model Curriculum Valid Up to Date	29/07/2024
Model Curriculum Version	1.0
Minimum Duration of the Course	Hours
Maximum Duration of the Course	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:

- Sort and grade fruits, vegetables, nuts based on colour, size, appearance, feel and smell
- Process fruits and vegetables to produce jam, jelly and ketchup manually or mechanically
- Operate various mechanical or automated machineries for canning
- Prepare and process various fruits and vegetables manually or in machine-operated units for pickle-making
- Process fruits and vegetables to produce squash and juice manually or mechanically
- Plan, organize, prioritize, inspect, and calculate production requirements and maintain process parameters to achieve the desired quality and quantity
- Prepare baked products in artisan bakeries and patisseries, conforming to all quality standards as per standard operating procedures
- Operate oven and machineries/equipment
- Maintain process parameters to attain the desired quality and quantity
- Follow and maintain food safety and hygiene in the work environment
- Knowledge of working in a team

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
FIC/N9023 Prepare and maintain work area and process machineries for the production of final products **NOS Version No.: 1.0** **NSQF Level: 4**	**06:00 Hours**	**46:00 Hours**	**00:00 Hours**	**00:00 Hours**	**52:00 Hours**
Module 1: Prepare and maintain work area and process machineries for the production of final products	06:00 Hours	46:00 Hours	00:00 Hours	00:00 Hours	52:00 Hours
FIC/N0129 Sort and grade produce **NOS Version No.: 1.0** **NSQF Level: 5**	**32:00 Hours**	**100:00 Hours**	**00:00 Hours**	**00:00 Hours**	**132:00 Hours**
Module 2: Sort and grade produce	32:00 Hours	100:00 Hours	00:00 Hours	00:00 Hours	132:00 Hours
FIC/N0126 Can fruits and vegetables **NOS Version No.: 1.0** **NSQF Level: 5**	**26:00 Hours**	**52:00 Hours**	**00:00 Hours**	**00:00 Hours**	**78:00 Hours**
Module 3: Canning fruits and vegetables	26:00 Hours	52:00 Hours	00:00 Hours	00:00 Hours	78:00 Hours
FIC/N0122 Produce fruit pulp from various fruits **NOS Version No.: 1.0** **NSQF Level: 4**	**20:00 Hours**	**30:00 Hours**	**00:00 Hours**	**00:00 Hours**	**50:00 Hours**
Module 4: Produce fruit pulp from various fruits	20:00 Hours	30:00 Hours	00:00 Hours	00:00 Hours	50:00 Hours
FIC/N0103 Produce squash and juice **NOS Version No.: 1.0** **NSQF Level: 4**	**33:00 Hours**	**58:00 Hours**	**00:00 Hours**	**00:00 Hours**	**91:00 Hours**

Module 5: Produce squash and juice	33:00 Hours	58:00 Hours	00:00 Hours	00:00 Hours	91:00 Hours
FIC/N0118 Dry/ Dehydrate fruits and vegetables NOS Version No.: 1.0 NSQF Level: 4	**24:00 Hours**	**41:00 Hours**	**00:00 Hours**	**00:00 Hours**	**65:00 Hours**
Module 6: Execution of Drying/ Dehydration Process	24:00 Hours	41:00 Hours	00:00 Hours	00:00 Hours	65:00 Hours
FIC/N0107 Pickle making NOS Version No.: 1.0 NSQF Level: 4	**10:00 Hours**	**20:00 Hours**	**00:00 Hours**	**00:00 Hours**	**30:00 Hours**
Module 7: Execution of Pickle making process	10:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	30:00 Hours
FIC/N0111 Produce jam, jelly and ketchup NOS Version No.: 1.0 NSQF Level: 4	**25:00 Hours**	**80:00 Hours**	**00:00 Hours**	**00:00 Hours**	**105:00 Hours**
Module 8: Produce Jam, Jelly and Ketchup	25:00 Hours	80:00 Hours	00:00 Hours	00:00 Hours	105:00 Hours
FIC/N5007 Produce baked products in artisan bakeries and patisseries NOS Version No.: 1.0 NSQF Level: 4	**30:00 Hours**	**101:00 Hours**	**00:00 Hours**	**00:00 Hours**	**131:00 Hours**
Module 9: Produce baked products	30:00 Hours	101:00 Hours	00:00 Hours	00:00 Hours	131:00 Hours
FIC/ N9024 Complete documentation and record keeping related to Production of final products NOS Version No.: 1.0 NSQF Level: 4	**22:00 Hours**	**40:00 Hours**	**00:00 Hours**	**00:00 Hours**	**62:00 Hours**
Module 10: Complete documentation and record keeping	12:00 Hours	10:00 Hours	00:00 Hours	00:00 Hours	22:00 Hours
Module 11: Working in a team and learning team work ethics	10:00 Hours	30:00 Hours	00:00 Hours	00:00 Hours	40:00 Hours
FIC/N9001 Food safety, hygiene and sanitation for processing food products	**12:00 Hours**	**20:00 Hours**	**00:00 Hours**	**00:00 Hours**	**32:00 Hours**

NOS Version No.: 1.0 NSQF Level: 4					
Module 12: Food safety, personal hygiene and sanitation	12:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	32:00 Hours
FIC/N9005 Developing entrepreneurial skills NOS Version No.: 1.0 NSQF Level: 4	**20:00 Hours**	**32:00 Hours**	**00:00 Hours**	**00:00 Hours**	**52:00 Hours**
Module 13: Developing entrepreneurial skills	20:00 Hours	32:00 Hours	00:00 Hours	00:00 Hours	52:00 Hours
Total Duration	**260:00 Hours**	**620:00 Hours**	**00:00 Hours**	**00:00 Hours**	**880:00 Hours**

Module Details

Module 1: Prepare and maintain work area and process machineries for the production of final products

Mapped to FIC/N9023 v1.0

Terminal Outcomes:

- Discuss the materials and equipment used in cleaning and maintenance.
- State the importance of maintaining the tools and equipment effectively.

Duration: *06:00*	**Duration**: *46:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define how to maintain cleanliness of the process machineries required for production using recommended sanitizers. • State the materials and equipment used in cleaning and maintenance of the work area and machineries. • State the cleaning processes used to clean the work area.	• Identify different equipment used in food processing. • Demonstrate the use of different tools and machineries used for jam, jelly and Ketchup final products. • Demonstrate the appropriate method for cleaning and maintain a work area and ensure the work area is safe and hygienic for food processing. • Identify and set the machines and tools required for production in working condition.
Classroom Aids:	
Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook.	
Tools, Equipment and Other Requirements	
authorized sanitizers, cleansers, all equipment for demonstration.	

Module 2: Sort and grade produce

Mapped to FIC/N2001 v1.0

Terminal Outcomes:

- Discuss the importance of sorting and grading agriculture produce.
- Demonstrate the process of sorting, grading and packaging agricultural produce

Duration: *32:00*	**Duration**: *100:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the process of sorting and grading agricultural produce. • Describe the storage procedures for incoming produce, packaging materials and packed produce. • State the chemicals used for washing fruits and vegetables. • Discuss the method of washing fruits and vegetables. • Explain the standards for grades of agricultural produce. • State the types of rejects for each produce. • List the types of packaging materials.	• Identify rejects and handle rejects as per defined procedures. • Demonstrate the process of receiving and washing agricultural produce. • Display the process of sorting and grading agricultural produce. • Demonstrate the process of packaging the graded produce. • Show the process of cleaning the work area and machineries after production.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
SOP, Weighing balance (Digital); Thermometer, pump, water spray system, sorting line conveyors, grading line conveyors, sensors in electronic sorting machines, packaging machines Laboratory weighing balance (Digital); Deep fridge; screw gauge, Verner callipers; sorter; grader, Fruit tray; Cutting knives; head caps, protective gloves, aprons, safety goggles, safety boots, mouth masks, sanitizer.	

Module 3: Canning fruits and vegetables

Mapped to FIC/N0126 v1.0

Terminal Outcomes:

- Discuss the various methods used in canning fruits and vegetables.
- Demonstrate the different processes carried out during canning of fruits and vegetables.

Duration: *26:00*	**Duration**: *52:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the production process used for canning fruits and vegetables. • List the types of containers used for packing canned products. • Discuss the method of storing cans. • Define the method of managing waste.	• Demonstrate the process of preparing the preserving solution. • Demonstrate the process of preparing fruits and vegetables for canning. • Demonstrate the process of canning fruits and vegetables. • Demonstrate the process of sterilization and storage. • Demonstrate the process of cleaning the work area and machineries after production.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
SOP; cutting knives, weighing machine, tray, hydrometer, cans, heaters, brinometer, brix index meter/ refractometer, thermometer, Mechanical peeler/ Batch type for fruit and vegetable peeling; Shredder for slicing of fruit and vegetable Liquid filling machine ,cooker/sterilizing machine, blancher, slicer, filer, sealer, freezers, coolers, different types of canned packaging material, store house protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual.	

Module 4: Produce fruit pulp from various fruits

Mapped to FIC/N0122, v1.0

Terminal Outcomes:

- Define the process of pulping fruits and procedure used to make the fruit pulp.
- Demonstrate the process of ripening, sorting, and deseeding fruit.

Duration: *20:00*	**Duration**: *30:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the process of pulping fruit • Define ripening • Define fruit ripening process. • State the procedures used to create the fruit pulp. • List the quality control parameters for checking fruit pulp. • State the basic categories of packing. • State the various types of packaging materials used for packing fruit pulp. • State the methods of sterilizing fruit pulp. • Describe the factors for selecting packaging materials. • Explain aseptic packaging in fruit processing industry. • Define canning and its purpose. • State the process of canning. • Define the methods for storing raw materials for later use. • Explain the process of storing packaged fruit pulp. • State the process of maintaining storage conditions.	• Demonstrate the process of ripening, sorting, and deseeding fruit. • Demonstrate the process of fruit pulping. • Demonstrate the canning process of fruit pulp. • Demonstrate the process of cleaning the work area and machineries after production organizational standards.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	

Tools, Equipment and Other Requirements
SOP; pH meter(Digital); Thermometer (Digital); Beakers; Measuring Cylinder; Measuring flask; Brinometer; Salinometer, Hydrometer; Weighing Balance (Digital); Brix Meter/ Refractometer; Deep fridge; refrigerator; Gas burner with cylinder; Fruit tray; Stainless steel mug; Pilfer proof capping machine; Cutting knives; mixer/electric mixer; water tank; fruit slicing machine; sealing machine; Vacuum gauge; pressure gauge; seam checking gauge or screw gauge; pressure cooker; coring Knives; Pitting knives; Juice extractor, crown corking machine; pulper; fruit mill; vacuum pan; mechanical peeler/ batch type of fruit and vegetable peeling; steam jacket kettle; baby boiler/ exhausting box; shredder for slicing of fruit and vegetable; liquid filling machine; Autoclaves S.S vessels with lids; micrometer seam checking gauge; bottle brush washer; protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual

Module 5: Produce Squash and Juice
Mapped to FIC/N0103 v1.0

Terminal Outcomes:

- Discuss the procedures used to produce Squash and Juice.
- Demonstrate the various methods like clarifying, packaging of fruit juice and squash.

Duration: *33:00*	**Duration**: *58:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the processing of Squash and Juice. • Define the procedures used to extract the fruit and vegetable juice/pulp • Describe enzyme activity in fruit processing. • State the procedure for preparing juice and squash. • Describe pasteurization process for fruit processing industry. • Describe sterilization process for fruit processing industry. • Discuss the methods of sterilizing fruit juice. • List the quality parameters of squash and fruit juice. • Explain aseptic packaging in fruit processing industry. • State the methods for storing raw materials for later use. • Explain the process of storing packaged fruit pulp. • State the process of maintaining storage conditions as per organizational standards. • Describe kinds of waste produced and its disposal.	• Demonstrate the pre-extraction processes of fruits. • Demonstrate the method of clarifying fruit juice. • Demonstrate the process of packaging squash and juice. • Demonstrate the process of cleaning the work area and machines after production.
Classroom Aids:	

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook
Tools, Equipment and Other Requirements
SOP; pH meter(Digital); Thermometer (Digital); Beakers; Measuring Cylinder; Measuring flask; Brinometer; Salinometer, Hydrometer; Weighing Balance (Digital); Brix Meter/ Refractometer; Deep fridge; refrigerator; Gas burner with cylinder; Fruit tray; Stainless steel mug; Pilfer proof capping machine; Cutting knives; mixer/electric mixer; water tank; fruit slicing machine; sealing machine; Vacuum gauge; pressure gauge; seam checking gauge or screw gauge; pressure cooker; coring Knives; Pitting knives; Juice extractor, crown corking machine; pulper; fruit mill; vacuum pan; mechanical peeler/ batch type of fruit and vegetable peeling; steam jacket kettle; baby boiler/ exhausting box; shredder for slicing of fruit and vegetable; liquid filling machine; Autoclaves S.S vessels with lids; micrometer seam checking gauge; bottle brush washer; protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual.

Module 6: Execution of Drying/ Dehydration Process

Mapped to FIC/N0118 v1.0

Terminal Outcomes:

- Discuss the packaging and storage of dried fruits and vegetables.
- Describe importance of drying or dehydration process.

Duration: *24:00*	**Duration**: *41:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• State the various production processes used for drying/dehydrating fruits and vegetables. • Explain the method of packing dried fruits and vegetables. • Explain the process of storing packaged fruits and vegetables.	• Demonstrate the process of preparing fruits and vegetables for drying/dehydration. • Demonstrate the process of sulphurizing fruits and vegetables. • Demonstrate the process of sun drying fruits and vegetables. • Demonstrate the process of hot air drying fruits and vegetables. • Demonstrate the process of freeze drying fruits and vegetables. • Demonstrate the process of inspecting dried fruits and vegetables. • Demonstrate the process of packaging and storing dried fruits and vegetables State the method of managing waste. • Demonstrate the process of cleaning the work area and machineries after production.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
PH Meter (Digital), Thermometer (Digital), Beakers of different sizes, Conical flasks, Measuring cylinder, Measuring flask, Burrete of assorted sizes with burrete stands, Pipettes of assorted sizes, Glass funnels of assorted sizes, Test tubes with test tube stand, Glass rod, Petri dish with cover, Glass slides, Microscope, Brinometer, Hydrometer, Weighing balance (Digital with capacity upto	

50 kg), Laboratory weighing balance (Digital), Brixs meter/refractometer, Deep fridge, Refrigerator, Gas burner with cylinder, Fruit tray, Stainless steel mug, Pilfer proof capping machine, Cutting knives, Electric mixer, Water tank, Fruit slicing machine, Sealing machine, Weighing balance (analogue), Oven (drying), Solar dryer (cabinet type) complete with solar box. Size app 6'*3', Mechanical peeler/ Batch type for fruit and vegetable peeling, Steam jacket kettle, Baby Boiler/Diesel fuel/capacity of boiler as per capacity of steam jacket kettle, Shredder for slicing of fruit and vegetable capacity 5kg/hour, Heat Sealing Machine Hand Operated, Moisture meter.

Module 7: Execution of pickle making process

Mapped to FIC/N0107 v1.0

Terminal Outcomes:

- Discuss the different methods of preparing pickle.
- Demonstrate the processes of preparing pickle in oil, brine and vinegar.

Duration: *10:00*	**Duration**: *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the process for curing raw material and storing cured raw material. • Discuss the different methods of preparation of pickle.	• Check the raw material for quality and grade. • Prepare the raw material for production. • Demonstrate the process of preparation of pickle in oil. • Demonstrate the process of preparation of pickle in brine. • Demonstrate the process of preparation of pickle in vinegar.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
SOP; pH meter(Digital); Thermometer (Digital); Beakers; Measuring Cylinder; Measuring flask; Brinometer; Salinometer, Hydrometer; Weighing Balance (Digital); Brix Meter/ Refractometer; Deep fridge; refrigerator; Gas burner with cylinder; Fruit tray; Stainless steel mug; Cutting knives; mixer/electric mixer; water tank; fruit slicing machine; sealing machine; pickle mixer, protective gloves; head caps; aprons; safety goggles; safety boots; mouth covers; approved sanitizers; quality and safety manual.	

Module 8: Produce Jam, Jelly and Ketchup

Mapped to FIC/N0111 v1.0

Terminal Outcomes:

- List the steps followed to prepare Jam, Jelly and ketchup.
- Demonstrate the various processes used to prepare Jam, Jelly and ketchup.

Duration: *25:00*	**Duration**: *80:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the processing of Jam. • Define the processing of Jelly. • Explain the processing of Ketchup. • State the procedures used to extract the fruit and vegetable juice/pulp. • Describe enzyme activity in fruit processing • Describe pectin's role. • Describe pasteurization process for fruit processing industry. • Describe sterilization process for fruit processing industry. • State the methods of sterilizing fruit juice. • Define the methods of sterilizing fruit juice. • State the quality control of a product. • List the quality parameters of fruit pulp, jam, jelly and ketchup. • Explain aseptic packaging in fruit processing industry. • State the methods for storing raw materials for later use. • Explain the process of storing packaged fruit pulp. • State the process of maintaining storage conditions as per organizational standards. • Define kinds of waste produced and its disposal.	• Demonstrate the pre-pulping processes of fruit and vegetables. • Demonstrate the process of fruit and vegetable pulping. • Demonstrate the process to extract juice. • Demonstrate the process to prepare jam. • Demonstrate the process to prepare jelly. • Demonstrate the process to prepare Ketchup. • Demonstrate the process of Ketchup preparation. • Demonstrate the process of packaging jam and jelly. • Demonstrate the process of packaging ketchup. • Demonstrate the process of cleaning the work area and machines after production.
Classroom Aids:	

Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.
Tools, Equipment and Other Requirements
SOP; pH meter(Digital); Thermometer (Digital); Beakers; Measuring Cylinder; Measuring flask; Brinometer; Salinometer, Hydrometer; Weighing Balance (Digital); Brix Meter/ Refractometer; Deep fridge; refrigerator; Gas burner with cylinder; Fruit tray; Stainless steel mug; Pilfer proof capping machine; Cutting knives; mixer/electric mixer; water tank; fruit slicing machine; sealing machine; Vacuum gauge; pressure gauge; seam checking gauge or screw gauge; pressure cooker; coring Knives; Pitting knives; Juice extractor, crown corking machine; pulper; fruit mill; vacuum pan; mechanical peeler/ batch type of fruit and vegetable peeling; steam jacket kettle; baby boiler/ exhausting box; shredder for slicing of fruit and vegetable; liquid filling machine; Autoclaves S.S vessels with lids; micrometer seam checking gauge; bottle brush washer; protective gloves, head caps, aprons, safety goggles, safety boots, mouth masks, sanitizer, safety manual.

Module 9: Produce Baked products

Mapped to FIC/N5007 v1.0

Terminal Outcomes:

- List the various methods used to produce baked products.
- Demonstrate the processes used to make baked products.

Duration: *30:00*	**Duration**: *101:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the process of cooling baked products. • State the process of packaging of baked products. • Define the method of storing raw materials. • Describe the method of storing finished products.	• Demonstrate the process for mixing and preparing dough. • Demonstrate the process for fermenting and proofing dough. • Demonstrate the process for rolling, shaping, cutting and moulding biscuits and cookies. • Demonstrate the process for making mould batter for cakes. • Demonstrate the process for baking products in an oven. • Demonstrate the process for designing and developing specialty bakery products. • Identify if the final product meets the quality parameters.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Ovens (Diesel), Ovens (Gas), Baking sheet & Racks, Commercial Mixers, Wire whiskers, Refrigerator, Fryer, Baking Pan, Cooling racks, Bread slicer manual, Bread slicer mechanical, Cake decorative tools, Knives, Spatula, Utensils, Mixing bowl, Work table, Sinks, Measuring Cup & spoon, Thermometer, Timer, Digital Hygrometer, Lab equipment for testing, Lab chemicals for testing and glassware, Packing, wraps rolls, Packing wraps rolls, Aprons, Cleaning tools, Weighing Scale, Gas Burner (LPG), LPG cylinders, Heat resistant Gloves, Protective Gloves, Fire extinguishers, High speed exhausts, Masks –Head cover, mouth cover, ingredients and raw material as per recipe to be prepared.	

Module 10: Complete documentation and record keeping
Mapped to FIC/N9024 v1.0

Terminal Outcomes:

- Discuss the need of documenting and maintaining records of raw materials.
- Explain ERP system.

Duration: *12:00*	**Duration**: *10:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the need for documenting and maintaining records of raw materials, processes and finished products. • Define the method of documenting and recording the details of raw material to final finished product. • Document daily records in the ERP system effectively.	• Demonstrate the process of documenting records of production plan, process parameters, and finished products. • Demonstrate how to record in the ERP system effectively.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook, logbooks.	
Tools, Equipment and Other Requirements	
Internal audit register, food safety manual, quality policy etc.	

Module 11: Working in a team and learning team and learning team ethics
Mapped to FIC/N9024 v1.0

Terminal Outcomes:

- Discuss the importance of attending periodic training to enhance skills.
- Demonstrate how to address team related issues that come during the course of work.

Duration: *10:00*	**Duration**: *30:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the steps of setting up meetings regularly. • Describe the most suitable method to manage feedback to improve performance. • Discuss how to Co-ordinate with other team members to improve performance of the organization. • Discuss importance of Attending periodic training to enhance skills.	• Demonstrate how to address team related issues that come during the course of work. • Display how to do Knowledge sharing on techniques and products. • Demonstrate how to communicate with team members including superiors.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Nil	

Module 12: Food safety, personal hygiene and sanitation

Mapped to FIC/N9001 v1.0

Terminal Outcomes:

- Discuss the importance of health and safety at the workplace.
- Demonstrate the tasks to be performed for ensuring health and safety at the workplace.

Duration: *12:00*	**Duration**: *20:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the importance of safety, hygiene and sanitation in the baking industry. • Discuss the relevant HACCP principles to be followed in the baking industry.	• Demonstrate the steps to be performed to maintain a safe and hygiene workplace. • Demonstrate the steps to be performed to implement HACCP practices for ensuring food safety. • Roleplay a situation depicting the safety practices to be followed at the workplace.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Protective gloves, head caps, aprons, safety goggles, safety boots, mouth covers, sanitizer, food safety manual, logbooks etc.	

Module 13: Developing Entrepreneurial Skills
Mapped to FIC/N9005 v1.0

Terminal Outcomes:

- Discuss the importance of entrepreneurial skills.
- Demonstrate how to deal effectively with all the stakeholders.

Duration: *20:00*	**Duration**: *32:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss how to assess demand and supply of products/services in markets. • Explain how to seek information regarding subsidies/loans available through the government. • Define the method to avail loan from the financial institutions. • Discuss the method of tracking prices prevailing in the market and formulate competitive pricing mechanism. • Maintain book of accounts. • Calculate B:C ratio. • Define how to achieve continuous improvement and streamlining of the processes. • Explain how to look out for new opportunities.	• Show how to Work out the feasibility and viability of setting up micro enterprises. • Identify & develop appropriate marketing channels. • Demonstrate how to deal effectively with all the stakeholders. • Demonstrate how to Comply with relevant regulations in marketing and sale of produce.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
NIL	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification *<Select the minimum educational requirements, such as 12th Pass, Graduate or NSQF certified.>*	**Specialization** *<Specify the areas of specialization that are desirable.>*	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
M.Sc/M.Tech/ME	Food Technology or Food Engineering	2	Fruit and vegetable industry/bakery industry	0	Training of Multi Skill Technician	
B.Sc or graduate/B.Tech/BE	Food Technology or Food Engineering	3	Fruit and vegetable industry/bakery industry	0	Training of Multi Skill Technician	
Diploma	Food Technology or Food Engineering	4	Fruit and vegetable industry/bakery industry	2	Training of Multi Skill Technician	
B.Sc	Food Science and Quality Control	4	Fruit and vegetable industry/bakery industry	0	Training of Multi Skill Technician	
Diploma / Hotel Management/ Certificate course	Fruits and Vegetables Processing	5	Fruit and vegetable industry/bakery industry	0	Training of Multi Skill Technician	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Multi skill Technician (Food Processing)" mapped to QP: "FIC/Q9007, v1.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102". Minimum accepted SCORE IS 80 % as per SSC guidelines.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification *<Select the minimum educational requirements, such as 12th Pass, Graduate or NSQF certified.>*	**Specialization** *<Specify the areas of specialization that are desirable.>*	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Sc/Diploma	Hotel management/Food Technology/Home Science/Agriculture/Post Harvest Processing	5	Food Processing/Agricultural Industry	3	Assessment of Multi Skill Technician	
B.Tech/B.E./	Food Technology / Food Engineering/Agriculture Engineering	3	Food Processing/Agricultural Industry	2	Assessment of Multi Skill Technician	
M.Sc./M.E./M.Tech	Food Technology or Food Engineering/Agriculture engineering	2	Food Processing/Agricultural Industry	1	Assessment of Multi Skill Technician	
MBA	Agri Business Management/FTM	2	Food Processing/Agricultural Industry	1	Assessment of Multi Skill Technician	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Multi skill Technician (Food Processing)" mapped to QP: "FIC/Q9007, v1.0". Minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102". Minimum accepted SCORE IS 80 % as per SSC guidelines.

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 (i) True / False Statements (ii) Multiple Choice Questions (iii) Matching Type Questions. Online 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 behavioral aspects as regards the job role and the specific task at hand.

Glossary

Term	Description
Declarative Knowledge	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.
Key Learning Outcome	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).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	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.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do **upon the completion of the training**.
Terminal Outcome	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
HACCP	Hazard Analysis and Critical Control Points
GMP	Good Manufacturing Practices
GHP	Good Hygiene Practices