



Model Curriculum

QP Name: Packing Machine Worker- Food Processing

QP Code: FIC/Q7002

QP Version: 3.0

NSQF Level: 3

Food Industry Capacity and Skill Initiative(FICSI)
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Training Parameters

Sector	Food Processing
Sub-Sector	Multi-Sectorial
Occupation	Packaging
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NC0-2015/3122.4100
Minimum Educational Qualification and Experience	1. Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 2. 8th grade pass with 1-year of relevant experience OR 3. 5th grade pass with 4 years of relevant experience OR 4. Ability to read and write with 5 years relevant experience OR 5. Previous relevant qualification of NSQF Level 2 with 1 years of relevant experience OR 6. Previous relevant qualification of NSQF Level 2.5 with 6 months of relevant experience
Pre-Requisite License or Training	Not Applicable
Minimum Job Entry Age	18 years
Last Reviewed On	30/09/2021
Next Review Date	29/09/2024

NSQC Approval Date	30/09/2021
QP Version	3.0
Model Curriculum Creation Date	15/01/2020
Model Curriculum Valid Upto Date	29/09/2024
Model Curriculum Version	3.0
Minimum Duration of the Course	270 Hours
Maximum Duration of the Course	270 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 various packing related activities
- Monitor the packaging production line
- Perform post packaging activities
- Understand and carry out safe working practice
- Understand the importance of working safely in an industry
- Understand the norms for 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/N7024 Monitor packing machines for various processed food products NOS Version No.: 1.0 NSQF Level: 3	70:00 Hours	110:00 Hours	00:00Hours	00:00Hours	180:00 Hours
Module1: Introduction to the training program	04:00 Hours	00:00 Hours	00:00Hours	00:00Hours	04:00 Hours
Module 2: Organizational standards and norms	06:00 Hours	10:00 Hours	00:00Hours	00:00Hours	16:00 Hours

Module 3: Monitor packing machines for various processed food products and identify nonstandard output	60:00 Hours	100:00 Hours	00:00Hours	00:00Hours	160:00 Hours
FIC/N9002 Use basic health and safety practices at a food processing work place NOSVersionNo.:1.0 NSQF Level: 2	10:00 Hours	20:00 Hours	00:00Hours	00:00Hours	30:00 Hours
Module 4: Use basic health and safety practices at a Food processing workplace	10:00 Hours	20:00 Hours	00:00Hours	00:00Hours	30:00 Hours
CSC/N1336 Work Effectively with others NOS Version No.: 1.0 NSQFLevel:3	10:00 Hours	20:00 Hours	00:00Hours	00:00Hours	30:00 Hours
Module 5: Work effectively with others	10:00 Hours	20:00 Hours	00:00Hours	00:00Hours	30:00 Hours
DGT/VSQ/N0101 Employability Skills NOS Version No.: 1.0 NSQF Level: 2	12:00 Hours	18:00 Hours	00:00Hours	00:00Hours	30:00 Hours
Module 6: Employability Skills	12:00 Hours	18:00 Hours	00:00Hours	00:00Hours	30:00 Hours
Total Duration	102:00 Hours	168:00 Hours	00:00Hours	00:00Hours	270:00 Hours

Module Details

Module 1: Introduction to the training program Mapped to FIC/N7024, v1.0

Terminal Outcomes:

- Introduce to fellow participants and the trainer.
- Explain food processing and its sub-sectors
- Discuss the current market and future trends of food processing sector

Duration: 04:00	Duration: 00:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> • State the need for and importance of training program • Introduce each other and build rapport with fellow participants and the trainer. • Define food processing. • Describe the various sub sectors of food processing industry and packaging materials used for each of these sub-sectors 	
Classroom Aids:	
Whiteboard/Chart papers, marker	
Tools, Equipment and Other Requirements	
Nil	

Module 2: Organizational standards and norms

Mapped to FIC/N7024, v1.0

Terminal Outcomes:

- Discuss the roles and responsibilities of a packing machine worker
- Describe importance of personal hygiene and sanitation

Duration: 06:00	Duration: 10:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the major roles and responsibilities of a packing machine worker in a food industry • Describe how to conduct yourself at the workplace. • Describe basic conduct to carry yourself at the work place • Describe work place ethics • Define basic knowledge and understanding of the organization • Describe the personal hygiene and sanitation guidelines to be followed at the workplace. • Describe the food safety and hygiene standards followed in a work environment 	<ul style="list-style-type: none"> • Demonstrate how to conduct yourself at the workplace. • Demonstrate the procedure to be followed to implement personal hygiene and sanitation guidelines at the workplace.
Classroom Aids:	
Laptop, white board, marker, chart papers, projector, trainer’s guide and student handbook, protective gloves, head caps ,aprons, safety goggles, safety boots,mouth masks,sanitizer,safety manual	
Tools, Equipment and Other Requirements	
Nil.	

Module 3: Monitor packing machines for various processed food products and identify nonstandard output

Mapped to FIC/N7024, v1.0

Terminal Outcomes:

- Discuss the working of packaging machines
- Demonstrate the tasks to be performed for packing the food products

Duration: 60:00	Duration: 100:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> • Identify the food product to be packed and its specification in terms of quantity and quality. • List the types of packing materials to be used. • Identify the quantity and quality of packing material (such as sheets, boxes, cans, or rolls made of plastic, paper, cardboard, cloth or metal; bottles, etc) required as per the type of food product to be packed. • Explain the environmental requirements to be maintained as per the food product to be packed temperature, moisture, non-contamination, cleanliness and hygiene, ventilation, etc. • Explain the characteristics of non-standard output product. • Discuss the various discrepancies, non-standard output, problems observed in the process. • State the importance of reporting to the supervisor immediately to ensure immediate resolution of the problem. • State the importance of complying with relevant legislations for food processing and packaging such as Food Safety and Standards Act, 2006 - Packaging and Labeling Regulations, relevant HACCP 	<ul style="list-style-type: none"> • Roleplay a situation on how to obtain packing specifications from authorized source e.g. supervisor, team lead, ERP system, etc. • Show how to check the food product to be packed to confirm it is suitable as per specifications. • Show how to inspect the packing material as per the job specification received, desired quantity and quality. • Wear appropriate personal protective equipment as per type of task to be performed. • Perform tasks such as loading, positioning, or feeding the food product in the packing machine as per manufacturers' guidelines and packing specifications. • Demonstrate using of appropriate personal protective equipment (PPE). • Apply standard practices to control the operating parameters while packing the food products. • Show how to check a sample of the packed food product to ensure it is as per specifications.

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| <ul style="list-style-type: none"> guidelines, relevant ISO 22000 guidelines, regulations with respect to the food item being packed, etc. | <ul style="list-style-type: none"> Monitor the equipment performance and packing production line to identify any discrepancy in operating conditions. Perform integrity testing on the packed items as per operational guidelines. Roleplay a situation on how to report the discrepancies identified to the supervisor or maintenance staff as per operational guidelines. Perform tasks in adherence with workplace procedures, taking all safety and hygiene related precautions. Show how to inspect for non-standard output product by visually. Perform segregation and labelling of the non-standard materials and packages which do not meet the specifications. |
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Classroom Aids:

Laptop, white board, marker, chart papers, projector, trainer's guide and student handbooks
 Computer, Projection Equipment, Power Point Presentation and software, Facilitator's Guide,

Tools, Equipment and Other Requirements

Coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; lifting assistance; mesh aprons; protective boot covers; protective hand and arm covering ; protective head and hair covering; work uniforms; safety and waterproof footwear, containers, utensils, hand tools, lifting aids, stacking equipment, processing unit, conveyor and processing belts

Module 4: Use basic health and safety practices at a food processing workplace

Mapped to FIC/N9002, v1.0

Terminal Outcomes:

- Discuss the different work safety practices
- Demonstrate how to provide first aid at the workplace

Duration: 10:00	Duration: 20:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the need to use protective clothing/equipment for specific tasks and work conditions. • List the various individuals responsible for ensuring health and safety in the workplace. • Identify common hazards signs displayed in various areas. • Discuss the methods of accident prevention in the work environment of the job role. • Describe where to locate the general health and safety equipment at the workplace. • Describe various rescue techniques • State basic first aid methods • Explain managing hazards at different food industries 	<ul style="list-style-type: none"> • Identify job-site hazardous work and state possible causes of risk or accident in the workplace. • Carry out safe working practices while dealing with hazards to ensure the safety of self and others. • Perform tasks in a way to ensure safety in areas such as in and around trenches, elevated places and confined areas. • Demonstrate the procedure for handling all food and related materials safely. • Apply standard practices follow Good housekeeping practices at all times. • Demonstrate rescue techniques applied during a fire hazard. • Demonstrate good housekeeping in order to prevent fire hazards. • Show how to use a fire extinguisher. • Apply appropriate measures to provide First aid to victims were required e.g.in

	<p>case of bleeding, burns, Role play a situation on how to respond to an accident situation or medical emergency in real or simulated environments promptly and appropriately.</p> <ul style="list-style-type: none"> • Perform and organize loss minimization or rescue activity during an accident in real or simulated environments. • Participate in emergency procedures.
Classroom Aids:	
Computer, Projection Equipment, Power Point Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Laptop, white board, marker ,chart papers ,projector ,trainer's guide and student handbook, coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; lifting assistance; mesh aprons; protective boot covers; protective hand and arm covering ; protective head and hair covering; work uniforms; safety and waterproof footwear, containers, utensils, hand tools, lifting aids, stacking equipment, processing unit, conveyor and processing belts	

Module 5: Work effectively with others

Mapped to CSC/N1336, v1.0

Terminal Outcomes:

- Display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible
- Demonstrate how to consult with and assist others to maximize effectiveness and efficiency in carrying out tasks

Duration: 10:00	Duration: 20:00
Theory–Key Learning Outcomes	Practical–Key Learning Outcomes

<ul style="list-style-type: none"> • Explain how to receive information and instructions from the supervisor and fellow workers, getting clarification where required. • Describe how to pass on information to authorized persons who require it and within agreed timescale and confirm its receipt • Describe the way to communicate with others clearly, at a pace and in a manner that helps them to understand. • Discuss about the use of appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism. • Describe how to escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict. 	<ul style="list-style-type: none"> • Demonstrate helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible. • Display how to assist others to maximize effectiveness and efficiency in carrying out tasks. • Demonstrate appropriate communication etiquette while working • Demonstrate active listening skills while interacting with others at work. • Role play appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism. • Dramatize how to responsible and disciplined behaviours at the workplace • Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict
Classroom Aids:	
Computer, Projection Equipment, Power Point Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Laptop, white board, marker, chart papers, projector, trainer's guide and student handbook, coats and aprons; ear plugs or muffs; eye and facial protection; head-wear; lifting assistance; mesh aprons; protective boot covers; protective hand and arm covering ; protective head and hair covering; work uniforms; safety and waterproof footwear, containers, utensils, hand tools, lifting aids, stacking equipment, processing unit, conveyor and processing belts	

Module 6: Employability Skills

Mapped to DGT/VSQ/N0101, v 1.0

Terminal Outcomes:

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

Duration: 12:00	Duration: 18:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements. • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Discuss 21st century skills. • Display positive attitude, self - motivation, problem solving, time management skills and continuous learning mindset in different situations. • Discuss the significance of reporting sexual harassment issues in time • Discuss the significance of using financial products and services safely and securely. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • Explain the importance of managing expenses, income, and savings. • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely • Discuss the need for identifying opportunities for potential business, sources for arranging money and 	<ul style="list-style-type: none"> • Show how to practice different environmentally sustainable practices • Use appropriate basic English sentences/phrases while speaking • Demonstrate how to communicate in a well -mannered way with others • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Show how to operate digital devices and use the associated applications and features, safely and securely • Create a biodata • Use various sources to search and apply for jobs

<p>potential legal and financial challenges</p> <ul style="list-style-type: none"> • Differentiate between types of customers • Explain the significance of identifying customer needs and addressing them • Discuss the significance of maintaining hygiene and dressing appropriately • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities 	
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Computer/laptop.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Sc/M.Tech /M.E.	Food Technology or Food Engineering	2	Food processing industry	1	Training of packaging technicians	
B.Sc or Graduate in food or allied sector / B.Tech/B.E.	Food Technology or Food Engineering	3	Food processing industry	1	Training of packaging technicians	
Diploma	Food Technology / Food Engineering/packaging allied sector	4	Food processing industry	1	Training of packaging technicians	

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: “Packing machine worker” mapped to QP:“FIC/Q7002,v3.0”. 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	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Sc/Diploma	hotel management/Food Technology/Home Science	3	Food Technology / Food Engineering/Packaging technology	3	Assessment of packing machine workers	
B.Tech/B.E./	Food Technology / Food Engineering/Packaging technology	2	Food Technology / Food Engineering/Packaging technology	2	Assessment of packing machine workers	
M.Sc./M.E./M.Tech	Food Technology or Food Engineering/Dairy Technology/Packaging Technology	1	Food Technology / Food Engineering/Packaging technology	1	Assessment of packing machine workers	
MBA	Agri Business Management/FTM	1	Food Technology / Food Engineering/Packaging technology	1	Assessment of packing machine workers	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Packing Machine Worker "mapped to QP:"FIC/Q7002,v3.0". 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. There in 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 banks 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