



Model Curriculum

QP Name: Food Products Packaging Technician

QP Code: FIC/Q7001

QP Version: 1.0

NSQF Level: 4

Model Curriculum Version: 1.0

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

Table of Contents

Program Overview	3
Training Outcomes.....	3
Compulsory Modules	3
Module 1: Introduction to Training Program and Overview of packaging Industry.....	5
Module 2: Professional and Core Skills.....	6
Module 3: Prepare and maintain work area and process machineries for packaging food products	7
Module 4: Prepare for packaging food products.....	8
Module 5: Package food products	9
Module 6: Organisational standards and norms	11
Module 7: Complete documentation and record keeping related to packaging food products.....	12
Module 8: IT orientation	13
Module 9: Food safety, hygiene and sanitation for packaging food products	14
Module 10: Employability and Entrepreneurship skills	15
Annexure.....	17
Trainer Requirements	17
Assessor Requirements.....	18
Assessment Strategy	19
References	0
Glossary.....	0
Acronyms and Abbreviations.....	1

Training Parameters

Sector	Food Processing
Sub-Sector	Fruit And Vegetable, Food Grain Milling (Including Oilseeds), Dairy Products, Meat And Poultry, Fish & Sea Food, Bread And Bakery, Alcoholic Beverages, Aerated Water/Soft Drinks
Occupation	Packaging
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7411.90
Minimum Educational Qualification and Experience	1. Class 12th passed and 1 year relevant experience 2. 10th Pass with 2 year ITI and 1 Year experience 3. 10th Pass with 1 year of ITI and 2 years of experience 4. Class 10th passed and 3 years of relevant diploma 5. Class 10th passed and 3 years of relevant experience
Pre-Requisite License or Training	1. Types and categories of packaging materials 2. Types of packing methods and techniques 3. Packaging various types of food products 4. GMP 5. HACCP 6. QMS 7. Computer basics and ERP 8. Training in food Safety Standards and Regulations (as per FSSAI) (Mandatory)
Minimum Job Entry Age	18 years
Last Reviewed On	31-05-2021
Next Review Date	31-05-2024
NSQC Approval Date	
QP Version	1.0
Model Curriculum Creation Date	04-09-2018
Model Curriculum Valid Up to Date	31-05-2024
Model Curriculum Version	1.0
Minimum Duration of the Course	280 Hours
Maximum Duration of the Course	280 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 learner will be able to:

- Maintain work area and machineries for packaging food products
- Prepare for packaging food products
- Package food products
- Document and record keeping related to packaging food products
- Apply food safety, hygiene and sanitation standards for packaging food products

Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Introduction to Training Program and Overview of packaging Industry	34:00 Hours	18:00 Hours	00:00 Hours	00:00 Hours	52:00 Hours
Module 1: Introduction to the training program	02:00 Hours	00:00 Hours	00:00 Hours	00:00 Hours	02:00 Hours
Module 2: Professional and Core Skills	04:00 Hours	06:00 Hours	00:00 Hours	00:00 Hours	10:00 Hours
Module 10: Employability and Entrepreneurship skills	28:00 Hours	12:00 Hours	00:00 Hours	00:00 Hours	40:00 Hours
FIC/N7001 Prepare and maintain work area and process machineries for packaging food products NOS Version No.: 1.0 NSQF Level: 4	10:00 Hours	26:00 Hours	00:00 Hours	00:00 Hours	36:00 Hours
Module 3: Prepare and maintain work area and process machineries for packaging food products	10:00 Hours	26:00 Hours	00:00 Hours	00:00 Hours	36:00 Hours
FIC/N7002 Prepare for packaging food products NOS Version No.: 1.0 NSQF Level: 4	12:00 Hours	28:00 Hours	00:00 Hours	00:00 Hours	40:00 Hours
Module 4: Prepare for packaging food products	12:00 Hours	28:00 Hours	00:00 Hours	00:00 Hours	40:00 Hours
FIC/N7003 Package food products	24:00 Hours	50:00 Hours	00:00 Hours	00:00 Hours	74:00 Hours

NOS Version No.: 1.0 NSQF Level: 4					
Module 5: Package food products	16:00 Hours	30:00 Hours	00:00 Hours	00:00 Hours	46:00 Hours
Module 6: Organisational standards and norms	08:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	28:00 Hours
FIC/N7004 Complete documentation and record keeping related to packaging food products NOS Version No.: 1.0 NSQF Level: 4	14:00 Hours	29:00 Hours	00:00 Hours	00:00 Hours	43:00 Hours
Module 7: Complete documentation and record keeping related to packaging food products	08:00 Hours	14:00 Hours	00:00 Hours	00:00 Hours	22:00 Hours
Module 8: IT Orientation	06:00 Hours	15:00 Hours	00:00 Hours	00:00 Hours	21:00 Hours
FIC/N7005 Food safety, hygiene and sanitation for packaging food products NOS Version No.: 1.0 NSQF Level: 3	15:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	35:00 Hours
Module 9: Food safety, hygiene and sanitation for packaging food products	15:00 Hours	20:00 Hours	00:00 Hours	00:00 Hours	35:00 Hours
Total Duration	109:00 Hours	171:00 Hours	00:00 Hours	00:00 Hours	280:00 Hours

Module 1: Introduction to Training Program and Overview of packaging Industry

Bridge Module

Terminal Outcomes:

- prepare work area and process machineries to produce jam, jelly & ketchup processing

Duration: 02:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Define food processing. • List the various sub sectors of food processing industry. • Explain different types of fruits and vegetables processing. • State the need for processing of fruits and vegetables. • List the various units within a fruits and vegetables processing unit. • State the methods of testing fruits and vegetables for accepted quality standards. 	
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Nil	

Module 2: Professional and Core Skills

Bridge Module

Terminal Outcomes:

- Discuss the attributes of desirable professional behaviour
- Demonstrate the standard measures undertaken for working effectively

Duration: 04:00	Duration: 06:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Identify personal strengths and weaknesses. • Discuss the importance of work order in the process. • Explain the importance of decision making in the job. • Explain the importance of communicating effectively. 	<ul style="list-style-type: none"> • Apply standard practice to undertake a self-assessment test for identifying strengths and weaknesses. • Plan and prioritise tasks effectively to ensure timely completion. • Demonstrate the ways to analyse situations for identifying problems and making sound decision promptly.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
NIL	

Module 3: Prepare and maintain work area and process machineries for packaging food products

Mapped to NOS/ FIC/N7001 v 1.0

Terminal Outcomes:

- Prepare work area and process machineries for packaging of food products

Duration: 10:00	Duration: 26:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the materials and equipment used in the cleaning and maintenance of the work area. • List the common detergents and sanitizers used in cleaning work area and machineries. • Explain the methods of cleaning and sanitization. • Describe the functions to be carried out before starting production. • Discuss the different types of maintenance procedures. 	<ul style="list-style-type: none"> • Perform the process of preparing the work area for scheduled production. • Conduct minor repairs and faults in process machineries. • Prepare the machines and tools required for production.
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Different types of Packaging Material, Conveyor, Hopper, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual	

Module 4: Prepare for packaging food products

Mapped to NOS/N7002 v 1.0

Terminal Outcomes:

- Prepare for packaging of food products

Duration: 12:00	Duration: 28:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the work order. • Explain how to check the availability of packaging materials, equipment and manpower. 	<ul style="list-style-type: none"> • Calculate the packaging material requirement for all categories of packaging, such as primary, secondary and tertiary for completing the order. • Demonstrate starting machine and checking the working condition and performance of the machine. • Demonstrate moving of required packaging materials. • Inspect the packaging material quality to company standards.
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Different Types of Packaging Material, Conveyor, Hopper, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual	

Module 5: Package food products

Bridge Module or Mapped to NOS/N7003 v 1.0

Terminal Outcomes:

- Discuss the stages involved in the packaging of food products
- Demonstrate the tasks to be performed for packaging of products

Duration: 16:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the machines and materials involved in the packaging of food products. 	<ul style="list-style-type: none"> • Demonstrate feeding food product to conveyors, hoppers or other feeding devices for packaging. • Demonstrate feeding the packaging materials. • Demonstrate setting controls and regulate speed of packaging line conveyor. • Demonstrate removing packaged product (i.e. primary packaging material) from the machine. • Demonstrate checking the weight of the packed pouch/containers and adjust controls if required. • Demonstrate glue/paste label on the primary packaging material (in case of bottles). • Demonstrate checking the quality of the secondary packaging materials. • Demonstrate placing the filled primary packaging materials (bottles, pouches) manually in secondary packaging material (carton/crate). • Demonstrate checking the quality of the tertiary packaging materials. • Demonstrate placing the product in tertiary packaging material. • Demonstrate removing tertiary packed product from the packaging machine. • Demonstrate cleaning of machineries used with recommended sanitizers following CIP (clean-in-place) procedure.
Classroom Aids	

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

Tools, Equipment and Other Requirements

Different Types of Packaging Material, Conveyor, Hopper, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Safety Manual, Packing Rolls, Shrink Packing Machine, Vacuum Packing Machine, Labeler, Sealer, Wrapping Machine

Module 6: Organisational standards and norms

Mapped to NOS/N0107 v 1.0

Terminal Outcomes:

- Discuss the roles and responsibilities of the individual in the job

Duration: 08:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the roles and responsibilities the individual in the job • Explain the food safety hygiene standards to follow in a work environment 	<ul style="list-style-type: none"> • Demonstrate how to conduct yourself at the workplace • State the personal hygiene and sanitation guidelines
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Protective Gloves, Head Caps, Lab Coat, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual	

Module 7: Complete documentation and record keeping related to packaging food products

Mapped to FIC/N7004 v 1.0

Terminal Outcomes:

- Document and maintain records related to jam, jelly & ketchup processing,

Duration: 08:00	Duration: 14:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the need for documenting and maintaining records of raw materials, processes and finished products. • Discuss the method of documenting and recording the details of raw material to final finished product. 	<ul style="list-style-type: none"> • Demonstrate the process of documenting records of production plan, process parameters, and finished product.
Classroom Aids	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Food Safety Manual, Log Books.	

Module 8: IT orientation

Mapped to FIC/N0112v1.0

Terminal Outcomes:

- List the parts of a computer
- Demonstrate the effective use of data recording applications at the workplace

Duration: 06:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the various parts of a computer. • Describe the functions of different computer devices. • List the various applications used in recording information. 	<ul style="list-style-type: none"> • Demonstrate the standard techniques used to operate a computer. • Show how to use an ERP software for recording information. • Demonstrate the effective use of applications such as word processor and spreadsheets.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook	
Tools, Equipment and Other Requirements	
Computer/laptop.	

Module 9: Food safety, hygiene and sanitation for packaging food products

Mapped to FIC/N7005 v 1.0

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: 15:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of safety, hygiene and sanitation in packaging food products. • Discuss the method of documenting and recording the details of raw material to final packaged product. 	<ul style="list-style-type: none"> • Apply the industry standards to maintain a safe and hygiene workplace. • Apply HACCP principles to eliminate food safety hazards in the process and products. • Apply safety practices in the work area.
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, Safety Manual ,Log Books etc.	

Module 10: Employability and Entrepreneurship skills

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

<ul style="list-style-type: none"> • Understand the importance of entrepreneurship • Describe the traits of successful entrepreneur • List the types of enterprises • Understand the importance of effective speaking and listening • Discuss the importance of problem solving • Discuss how to deal with failures • Describe the core keys of marketing • Discuss ways to manage risks at workplace 	
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	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Sc./M. Tech/ME in	Food Technology or Food Engineering	2	Food Technology or Food Engineering	1	Training of food products packaging technicians	
B. Sc. (home Sc.) /B. Tech./BE in food Technology or Food Engineering	Food Technology or Food Engineering	3	Food Technology or Food Engineering	2	Training of food products packaging technicians	
Diploma in food Technology or Food Engineering	Food Technology or Food Engineering	4	Food Technology or Food Engineering	3	Training of food products packaging technicians	

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Food Products Packaging Technician" mapped to QP: "FIC/Q7001, 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 is 80 % as per FICSI guidelines.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Sc./M. Tech/ME in	Food Technology or Food Engineering	2	Food Technology or Food Engineering	1	Assessment of food products packaging technician	
B. Sc. (home Sc.) /B. Tech./BE in food Technology or Food Engineering	Food Technology or Food Engineering	3	Food Technology or Food Engineering	2	Assessment of food products packaging technician	
Diploma in food Technology or Food Engineering	Food Technology or Food Engineering	4	Food Technology or Food Engineering	3	Assessment of food products packaging technician	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Food Products Packaging Technician" mapped to QP: "FIC/Q7001, 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.

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, as well as the selected elective NOS/set of NOS. OR
4. Assessment will be conducted for all compulsory NOS, as well as the selected optional NOS/set of NOS.
5. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
6. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
7. To pass the Qualification Pack , every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
8. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pac

References

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
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
CIP	Clean In Place
COP	Clean Out Of Place
ERP	Enterprise Resource Planning
FIFO	First In First Out
EFO	First Expiry First Out
FSSAI	Food Safety and Standards Authority of India
GMP	Good Manufacturing Practice
GHP	Good Hygiene Practices
HACCP	Hazard Analysis and Critical Control Point
NVEQF	National Vocational Educational Qualification Framework
NVQF	National Vocational Qualification Framework
OS	Occupational Standard
PC	Performance Criteria
SSC	Sector Skill Council
SOP	Standard Operating Procedure
QMS	Quality Management System