

Model Curriculum

Food Products Packaging Technician

SECTOR: FOOD PROCESSING

**SUB-SECTOR: FRUIT AND VEGETABLE, FOOD GRAIN
MILLING (INCLUDING OILSEEDS),
DAIRY PRODUCTS, MEAT AND
POULTRY, FISH & SEAFOOD, BREAD
AND BAKERY, ALCOHOLIC BEVERAGES,
AERATED WATER/SOFT DRINKS**

OCCUPATION: PACKAGING

REF. ID: FIC/Q7001, VERSION 1.0

NSQF LEVEL: 5



 Skill India वीक्षण भारत-कृषण भारत	 FICSI Food Industry Capacity and Skill Initiative	 N-S-D-C National Skill Development Corporation Transforming the skill landscape
<h2>Certificate</h2>		
<h3>CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS</h3>		
is hereby issued by the		
FOOD INDUSTRY CAPACITY AND SKILL INITIATIVE (FICSI)		
for the		
MODEL CURRICULUM		
Complying to National Occupational Standards of Job Role/Qualification Pack: 'Food Products Packaging Technician' QP No. 'FIC/Q7001, NSQF Level 5'		
Date of Issuance:	December 31, 2015	 .. Authorised Signatory (Food Industry Capacity and Skill Initiative)
Valid up to:	December 30 2016	
* Valid up to the next review date of the Qualification Pack		

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Food Products Packaging Technician

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Food Products Packaging Technician”, in the “Food Processing” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Food Products Packaging Technician		
Qualification Pack Name & Reference ID.	FIC/Q7001, VERSION 1.0		
Version No.	1.0	Version Update Date	31/12/15
Pre-requisites to Training	Preferably class12th (Normal literacy of reading, writing and understanding) and 2-3 year experience in a bakery unit		
Training Outcomes	<p>The programme will help in building the following key competencies amongst the learner:</p> <ul style="list-style-type: none"> • Operate packaging machineries to pack various processed food products; • Organise packaging material for primary, secondary and tertiary packaging; • Follow and maintain food safety and hygiene in the work environment; • Communicate effectively with peers and seniors; • Work in a team. 		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Food Products Packaging Technician” Qualification Pack issued by Food Industry Capacity and Skill Initiative.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction to the training program</p> <p>Theory Duration (hh:mm) 01:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Introduce each other and build rapport with fellow participants and the trainer 	White/Black board/ Chart paper, Markers/ computer and projector
2	<p>Overview of the Food Processing Industry</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> List the various sub-sectors of food processing industry Define food processing 	White/Black board/ Chart paper, Markers/ computer and projector, trainer’s guide, student handbook
3	<p>Introduction to packaging</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code FIC/N7001 FIC/N7002 FIC/N7003</p>	<ul style="list-style-type: none"> Classify packaging Explain the packaging process State the importance of packaging 	White/Black board/ Chart paper, Markers/ computer and projector
4	<p>Organizational Standards and Norms</p> <p>Theory Duration (hh:mm) 06:00</p> <p>Practical Duration (hh:mm) 00:00</p>	<ul style="list-style-type: none"> State the job roles and responsibilities of a food products packaging technician State the standard operating procedures as per organization policy State the personal hygiene and sanitation guidelines; State the food safety hygiene 	White/Black board/ Chart paper, Markers/ computer and projector, trainer’s guide, student handbook

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Corresponding NOS Code FIC/N7001 FIC/N7002 FIC/N7003 FIC/N7004 FIC/N7005</p>	standards to follow in a work environment.	
5	<p>Prepare and Maintain Work Area and Process Machineries</p> <p>Theory Duration (hh:mm) 06:00</p> <p>Practical Duration (hh:mm) 11:00</p> <p>Corresponding NOS Code FIC/N7001 FIC/N7002 FIC/N7003 FIC/N7005</p>	<ul style="list-style-type: none"> Identify the different equipment used for food packaging Demonstrate the use of different tools and machineries used State the materials and equipment used in cleaning and maintenance of work area and machinery State the methods of cleaning processes for tools and machineries used in packaging Identify the appropriate method for cleaning and maintaining the work area Ensure the work area is safe and hygienic for food processing Identify and set the machines and tools required for production in working condition Maintain cleanliness of the process machineries required for production using recommended sanitizers 	White/Black board/ Chart paper, Markers/ computer and projector, trainer's guide, student handbook, Wrapper, Flow wrapper, Bag sealers, Cartoner, Box formers and closers, Wrapping machines, Vacuum Packaging machines, Shrink packaging equipment, Rolling racks and trays, approved chemical sanitizers
6	<p>Food Microbiology</p> <p>Theory Duration (hh:mm) 07:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code FIC/N7002 FIC/N7003 FIC/N7005</p>	<ul style="list-style-type: none"> State the types of food microbes. State the causes for food spoilage. State the process for food spoilage. State the criteria to check food spoilage. State the need for food preservation. State the different types of food preservation processes. 	White/Black board/ Chart paper, Markers/ computer and projector, Trainer Guide, Student Handbook
7	<p>Preparation for packaging food products</p>	<ul style="list-style-type: none"> Identify functions of packaging Identify various packaging as per foods 	White/Black board/ Chart paper, Markers/ computer and projector, Trainer Guide, Student Handbook,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 18:00 Corresponding NOS Code FIC/N7002	<ul style="list-style-type: none"> Describe each category of packaging followed in the food industry Plan the production sequence to maximise capacity utilization of resources, manpower, and machineries; Calculate the batch size based on the production schedule and machine capacity; Prioritize urgent orders based on the production schedule; Check the conformance of raw material quality to company standards. Demonstrate the packaging State the process of cleaning after production 	Wrapper, Flow wrapper, Bag sealers, Box formers and closers, Vacuum Packaging machines, Shrink packaging equipment
8	Packaging Food Products Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 09:00 Corresponding NOS Code FIC/N7002 FIC/N7003 FIC/N7005	<ul style="list-style-type: none"> Explain labels and labeling Identify if the final product meets the quality parameters State the method of storing material Demonstrate the packaging process 	White/Black board/ Chart paper, Markers/ computer and projector, Trainer Guide, Student Handbook, Labellers like pressure sensitive labelling systems, Wrapper, Flow wrapper, Sorters, Bag sealers, Cartoner, Box formers and closers, Wrapping machines, Vacuum Packaging machines, Shrink packaging equipment
9	Documentation and Record Keeping Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 03:00 Corresponding NOS Code FIC/N7002 FIC/N7003 FIC/N7005	<ul style="list-style-type: none"> State the need for documenting and maintaining records of raw materials, process, and finished products State the method of documenting and recording the details of raw material to final finished product Use the computer for documenting records of production plan, process parameters and finished products Demonstrate the process of conducting workplace checklist audits 	Board/Chart paper/ Laptop and Projector, Trainer Handbook, Participant handbook, etc.
10	Food Safety, Hygiene and Sanitation	<ul style="list-style-type: none"> State the importance of safety, hygiene and sanitation in food processing industry 	White/Black board/ Chart paper, Markers/ computer and projector, Trainer Guide, Student Handbook, Sanitizers,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 05:00</p> <p>Corresponding NOS Code FIC/N7004</p>	<ul style="list-style-type: none"> Follow the industry standards to maintain a safe and hygiene workplace Follow HACCP principles to eliminate food safety hazards in the process and products Follow the safety practices in the work area 	Protective Gloves
11	<p>Professional Skills and Core Skills</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 05:30</p> <p>Corresponding NOS Code FIC/N7002 FIC/N7003 FIC/N7005</p>	<ul style="list-style-type: none"> Undertake a self-assessment Identify personal strengths and weaknesses Plan and Schedule the work order Prevent potential problems from occurring Resolve issues and problems using acquired knowledge Identify control measures to solve issues Complete assigned tasks with minimum supervision Assess your strengths and weakness Work on your strengths and weaknesses Assess your strengths and weakness Work on your strengths and weaknesses State the importance of listening and hearing for effective communication 	Board/Chart paper/ Laptop and Projector, Trainer Handbook, Participant handbook.
12	<p>IT Skills</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 05:30</p> <p>Corresponding NOS Code FIC/N7001 FIC/N7002 FIC/N7003 FIC/N7004 FIC/N7005</p>	<ul style="list-style-type: none"> Demonstrate the use of Office applications such as Word and Excel Explain the method of using the ERP system Document daily records in the ERP 	Board/Chart paper/ Laptop and Projector, Trainer Handbook, Participant handbook, etc.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
13	<p>Field Visits</p> <p>Theory Duration (hh:mm) 08:00</p> <p>Practical Duration (hh:mm) 24:00</p> <p>Corresponding NOS Code FIC/N7004</p>	<ul style="list-style-type: none"> Observe the factory location, layout, and safety aspects of food processing Observe the storage facilities for raw materials and finished products Observe the various machineries used in the packaging process Observe the cleaning methods and process followed to maintain machineries and tools Observe the materials used and their storage procedures Observe the storage processes of material and the packaged product Observe the post production cleaning and maintenance process followed in the industry Observe the ERP (Enterprise Resource Planning) system and the documentation process 	All the tools and equipment listed above must be available at the site of the field visit
14	<p>Revision</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 02:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Revise the knowledge gained so far 	All the tools and equipment listed above must be available for revision
15	<p>Evaluation</p> <p>Theory Duration (hh:mm) 06:00</p> <p>Practical Duration (hh:mm) 18:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Assess the knowledge and skills acquired by the participants 	All the tools and equipment listed above must be available for evaluation
16	<p>On-the-Job Training</p> <p>Theory Duration (hh:mm) 15:00</p>	<ul style="list-style-type: none"> Apply the skills and knowledge acquired in the training program in the field 	All the tools and equipment listed above must be available at the site of the OJT

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Practical Duration (hh:mm) 65:00 Corresponding NOS Code Bridge Module		
	Total Duration 255.00 Theory Duration 89:00 Practical Duration 166:00	Unique Equipment Required: Wrapper, Flow wrapper, Sorters, Bag sealers, Cartoner, Box formers and closers, Labellers like pressure sensitive labelling systems, Wrapping machines, Vacuum Packaging machines, Shrink packaging equipment, Rolling racks and trays	

Grand Total Course Duration: 255 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by SSC: Food Industry Capacity and Skill Initiative (FICSI))

Trainer Prerequisites for Job role: “Food Products Packaging Technician” mapped to Qualification Pack: “FIC/Q7001, VERSION 1.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “FIC/Q7001, VERSION 1.0”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	<ul style="list-style-type: none"> B.Sc/B.Tech/BE in or Food Process Engineering with 2-3 years of hands on experience in food packaging industry or PG Diploma in Packaging or M.Sc/M.Tech/ME in Food Process Engineering with 1-2 years of hand on experience in food packaging industry.
4a	Domain Certification	Certified for Job Role: “Food Products Packaging Technician” mapped to QP: “FIC/Q7001, VERSION 1.0”. Minimum accepted score as per respective SSC guidelines.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted score as per respective SSC guidelines.
5	Experience	<ul style="list-style-type: none"> B.Sc/B.Tech/BE in or Food Process Engineering with 2-3 years of hand on experience in a Cold Storage/Controlled Atmosphere Unit or PG Diploma in Packaging or M.Sc/M.Tech/ME in Food Process Engineering with 1-2 years of hand on experience in a Cold Storage/Controlled Atmosphere Unit.

Annexure: Assessment Criteria

Assessment Criteria for Food Products Packaging Technician	
Job Role	Food Products Packaging Technician
Qualification Pack	FIC/Q7001, VERSION 1.0
Sector Skill Council	Food Processing

Sr. No.	Guidelines for Assessment
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	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluation for skill practical for every student at each examination/training center based on this criteria
5	To pass the Qualification Pack , every trainee should score a minimum of 70% (overall)
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Sr. No.	NOS No.	NOS Name	Total Marks	Marks Allocation: Skills	Marks Allocation: Knowledge
1	FIC/N7001	Prepare and maintain work area and Machineries for packaging food products	100	65	35
2	FIC/N7002	Prepare for packaging food Products	100	65	35
3	FIC/N7003	Package food products	100	65	35
4	FIC/N7004	Complete documentation and record Keeping related to packaging food products	100	40	60
5	FIC/N7005	Food safety, hygiene and sanitation for packaging food products	100	65	35
	Total:		500	300	200
	Percentage Weightage:		100	60%	40%
	Minimum Pass% to qualify:				



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