



Model Curriculum

Craft Baker

SECTOR: FOOD PROCESSING SUB-SECTOR: BREAD AND BAKERY OCCUPATION: PROCESSING REF ID: FIC/Q5002, V1.0 NSQF LEVEL: 4











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Craft Baker

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "<u>Craft Baker</u>", in the "<u>Food Processing</u>" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Craft Baker		
Qualification Pack Name & Reference ID. ID	FIC/Q5002, v1.0		
Version No.	1.0	Version Update Date	31/12/2015
Pre-requisites to Training	Class 8		
Training Outcomes	 After completing this programme, participants will be able to: Prepare work area and process machineries for producing baked products in artisan bakeries and patisseries Prepare for production of baked products in artisan bakeries and patisseries Produce baked products in artisan bakeries and patisseries. Carry out documentation and record keeping related to baking Apply safety, hygiene and sanitation practices in the workplace 		





This course encompasses <u>5</u> out of <u>5</u> National Occupational Standards (NOS) of "<u>Craft Baker</u>" Qualification Pack issued by "<u>Food Industry Capacity and Skill Initiative</u>".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction to Training Program and Overview of Food Processing Industry Theory Duration (hh:mm) 03:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module	 State the need and importance of the training program Define food processing List the various sub sectors of food processing industry Define bread and bakery sector List the various units within a bakery unit State the roles and responsibilities of Craft Baker State the methods of testing the baked good 	
2	Organizational Standards and Norms Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 05:00 Corresponding NOS Code FIC/N5007	 State how to conduct yourself at the workplace List the various norms and procedures followed in the organization Carry out activities as per the organizational norms Apply the food safety hygiene standards to follow in a work environment 	Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer,
3	Prepare and maintain work area and machineries for producing baked products in artisan bakeries and patisseries	 State the materials and equipment used in the cleaning and maintenance of the work area State the common detergents and sanitizers used in cleaning work area and machineries 	Oven, Baking Sheet and Rack, Proof Box, Refrigerator, Commercial Mixer, Wire Whisker, Packaging Machine, Protective Gloves, Head Caps,





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Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code FIC/N5005	 State the methods of cleaning and sanitization Perform the process of preparing the work area for scheduled production Describe the functions to be carried out before starting production State the different types of maintenance procedures Conduct minor repairs and faults in process machineries Prepare the machines and tools required for production 	Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual
4.	Prepare for production of baked products in artisan bakeries and patisseries Theory Duration (hh:mm) 12:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code FIC/N5006	 Use basic mathematics for various calculations in day-to-day processes Plan the production schedule as per organizational standards and instructions Organize the raw materials, packaging materials, manpower, equipment and machineries for the scheduled production Identify the raw materials required for production as per production schedule and formation State the methods for storing raw materials for later use Plan the production sequence to maximize capacity, utilization of resources, manpower and machinery Calculate batch size and prioritize urgent orders based on the production schedule and machine capacity Inspect the conformance of raw material quality to company standards Organize quality raw material as per production process and company standards 	Oven, Baking Sheet and Rack, Proof Box, Refrigerator, Commercial Mixer, Wire Whisker, Packaging Machine, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual





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Sr. No.	Module	Key Learning Outcomes	Equipment Required
		 Check the raw material quality and grade Prepare the raw material for production 	
5.	Produce baked products in artisan bakeries and patisseries Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 50:00 Corresponding NOS Code FIC/N5007	 Perform a check if all the machineries are clean and in good working conditions List the different machineries involved in manufacturing of bakery products Collect the various raw material like fat, salt, yeast and flour State the working of machineries involved in the production Demonstrate assembling of all components of machines Perform a pre check on all machineries Demonstrate the various stages in preparation of bakery products like cakes, pastries, tarts, specilaity baked products Set the control parameters during manufacturing of baked products Demonstrate the monitoring of machineries involved during manufacturing of baked products Demonstrate the quality of finished product Analyze the quality of finished product Demonstrate cleaning the machineries used with recommended sanitizers following CIP (clean-in-place) procedure Demonstrate cleaning the equipment and tools used using recommended cleaning agents and sanitizers 	Oven, Baking Sheet and Rack, Proof Box, Refrigerator, Commercial Mixer, Wire Whisker, Packaging Machine, Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Masks, Sanitizer, Food Safety Manual
6.	Complete documentation and record keeping related to	 State the need for documenting and maintaining records of raw materials, processes and finished products State the method of documenting 	Food Safety Manual, Log Books.









Sr. No.	Module	Key Learning Outcomes	Equipment Required
	production of baked products in artisan bakeries and patisseriesTheory Duration 	 and recording the details of raw material to final finished product Demonstrate the process of documenting records of production plan, process parameters, and finished products 	
7.	Food Safety, Hygiene and Sanitation for Packaging Food Products Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code FIC/N9001	 State the importance of safety, hygiene and sanitation in the baking industry 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 	Protective Gloves, Head Caps, Aprons, Safety Goggles, Safety Boots, Mouth Covers, Sanitizer, Food Safety Manual ,Log Books etc.
8.	Professional and Core Skills Theory Duration (hh:mm) 04:00 Practical Duration	 Undertake a self-assessment test to identify personal strengths and weaknesses Follow the work order and manage time effectively to complete the tasks assigned State the importance of decision making 	







Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 10:00 Corresponding NOS Code Bridge Module	 Identify potential problems and make sound and timely decision State the importance of listening 	
9.	IT orientation Theory Duration (hh:mm) 06:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code FIC/N5008	 Identify parts of the computer Use the computer keyboard effectively to type Use ERP tool effectively Use the word processor effectively Use the spreadsheet application effectively 	Computer/Laptop
	Total Duration 240:00 Theory Duration 90:00	Unique Equipment Required : Oven, Ba Proof Box, Refrigerator, Commercial Mixer, Packaging Machine, Protective Gloves, Hea Goggles, Safety Boots, Mouth Masks, Sanit , Log Books, Computer/Laptop	Wire Whisker, ad Caps, Aprons, Safety
	Practical Duration 150:00		

Grand Total Course Duration: 240Hours, 0 Minutes Recommend OJT Hours: 90Hours, 0 Minutes

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





Trainer Prerequisites for Job role: "Craft Baker" mapped to Qualification Pack: "FIC/Q5002, v1.0"

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack " <u>FIC/Q5002", Version 1.0</u>
2	Personal Attributes	An aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, ability to work as part of a team; a passion for quality and for developing others; well-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned fields.
3	Minimum	• Diploma/Certificate course/Hospitality course in baking with 4 years of
	Educational Qualifications	 hand on experience in a bakery industry or B.Sc./B. Tech/BE in Food Technology or Food Engineering with 2-3 years of hand on experience in a bakery industry or M.Sc./MTech/ME in Food Technology or Food Engineering with 1-2 years of hand on experience in a bakery industry
4a	Domain Certification	Certified for Job Role: "Craft Baker" mapped to QP: <u>"FIC/Q5002, v1.0"</u> . Minimum accepted score is 80% as per FICSI Guidelines
4b	Platform Certification	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 FICSI guidelines.
5	Experience	 Diploma/Certificate course/Hospitality course in baking with 4 years of hand on experience in a bakery industry or B.Sc./B. Tech/BE in Food Technology or Food Engineering with 2-3 years of hand on experience in a bakery industry or M.Sc./MTech/ME in Food Technology or Food Engineering with 1-2 years of hand on experience in a bakery industry





Annexure: Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES	
Job Role	Craft Baker
Qualification Pack	FIC/Q5002
Sector Skill Council	Food Processing

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

The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
 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 Pack





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		Tatal		Marks	Allocation
		Total Mark	Out Of	Theory	Skills Practical
1.FIC/N5005(PC1. Clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests		25	10	15
Prepare	PC2. Ensure that the work area is safe and hygienic for food processing		10	3	7
and maintain work area and	PC3. Dispose waste materials as per standard operating procedures and industry requirements		15	5	10
machineries for producing baked	PC4. Check the working and performance of all machineries and tools used for production	100	15	5	10
products in artisan bakeries and	PC5. Clean the machineries and tools used with approved sanitizers following specifications and SOPs		15	5	10
patisseries)	PC6. Place the necessary tools required for process		5	2	3
	PC7. Attend to the minor repairs/ faults of all machines, if required		15	5	10
			100	35	65
	PC1. Read and understand the production order from the supervisor (or) calculate the type of products and quantity of products to be produced based on sales of the outlet		10	4	6
	PC2. Check the availability of raw materials, packaging materials, equipment and manpower		5	2	3
2. FIC/N5006(Pr epare for production of baked products in artisan	 PC3. Plan production sequence by: Grouping products which are of the same type (fermented/unfermented products) Selecting raw materials that do not impact the quality of the other Using the same equipment and machinery for various products Planning maximum capacity utilization of machineries Considering the process time for each product 	100	15	5	10





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bakeries and	Diagning officient utilization of			[
	Planning efficient utilization of				
patisseries)	resources/manpowerPrioritizing urgent orders				
	PC4. Calculate the batch size based on	-			
	the production order and machine		5	2	3
			J	2	5
	capacity PC5. Calculate the raw material				
	requirement (considering the				
	process loss) to produce the		5	2	3
	required quantity of finished			-	C C
	product(s)				
	PC6. Calculate the raw materials				
	(including ingredients, if any),				
	packaging materials and manpower		5	2	3
	requirement for the completing the				
	order				
	PC7. Check the working and performance				
	of equipment required for the		7	2	5
	baking process				
	PC8. Calculate the lead time from mixing				
	to oven loading for effective		7	2	5
	utilization of baking equipments				
	PC9. Plan batch size considering full		-		
	capacity utilization of equipments		3	1	2
	PC10. Plan to utilize equipments for				
	multiple products without affecting				
	the quality of the finished products,		3	1	2
	and to optimize production and				
	save energy				
	PC11. Allot responsibilities/ work to the		5	2	3
	assistants and helpers"			_	
	PC12. Refer to the process chart/ product				
	flow chart/formulation chart for		5	1	4
	product(s) produced	-			
	PC13. Check the conformance of raw				
	material quality to organization				
	standards through physical		5	1	4
	parameters such as appearance,				
	colour, texture, etc.	-			
	PC14. Weigh the raw materials required				
	for the batch (including ingredients,				
	additives, preservatives, etc.)				
	accurately, considering that exact		5	1	4
	quantity of ingredients and				
	additives are responsible for final				
	yield and quality of the finished				









	products				
	PC15. Start machine and check its working				
	and performance, make minor		10	5	5
	adjustments or repairs (if required)				
	PC16. Keep tools accessible to attend		5	2	3
	repairs/faults in case of breakdown				
			100	35	65
	PC1. Check the quality of ingredients through physical parameters such as appearance, colour, odour, texture, etc. For its conformance to		5	2	3
	organization standards				
	PC2. Weigh and accurately measure all ingredients as per formulation and transfer the weighed raw materials to the working bench/ mixing table		5	2	3
	PC3. Cream the shortenings till it reach the required consistency	-	2	0.5	1.5
	PC4. Knead/mix the ingredient to prepare dough/batter of required consistency	-	5	2	3
3.	PC5. Check the quality of the dough/batter for its conformance to the defined SOP's		5	2	3
FIC/N5007(Pr oduce baked products in artisan bakeries and	PC6. Transfer the dough into a container and allow it to stand for specified time for fermentation and periodically check the consistency and texture to determine the level of fermentation	100	2	0.5	1.5
patisseries)	PC7. Dust the table with flour and transfer the dough from the container to the table dusted with flour		5	2	3
	PC8. Stretch and fold the fermented dough for degassing, brush the dough surface to remove excess flour and transfer dough back to the dough container for continued fermentation		2	0.5	1.5
	PC9. Repeat stretch and fold four to five times to obtain desired consistency		2	0.5	1.5
	PC10. Cut the dough and weigh the quantity required for making the product and mould dough into loaves or form to desired shape		2	0.5	1.5
	PC11. Sprinkle topping such as spices,		3	1	2





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cereals, seeds, etc. for making special				
rolls or breads and place the loaves				
or shaped dough in the bread				
box/mould or baking pans	-			
PC12. Check the water level in the proof				
box and set to the required time,				
temperature and humidity and load		2	1	1
the proof box with the bread		2		
box/mould filled with dough,				
following production sequence				
PC13. Monitor proof box parameters such				
as temperature/humidity during				
proofing process, monitor raising of				
dough in the proof box and remove		2	1	1
the bread mould out of proof box				
after dough has rise to specified				
height				
PC14. Sprinkle flour on dough and work	ſ			
bench to prevent dough from sticking,				
and roll dough to desired		2	0.5	1.5
thickness with rolling pin to make				
cookies and biscuits				
PC15. Cut the dough to desired shape using	Γ			
cookie cutter, spread or sprinkle		1	0.5	0.5
toppings on the shaped dough				
PC16. Grease or flour the baking pans and	F			
place the shaped dough in it		2	0.5	1.5
PC17. Pour the measured quantity of	Ī			
batter(cake batter) into the moulds		2	0.5	1.5
of various shape		-	010	
PC18. Start the oven and set the	F			
temperature for preheating		2	0.5	1.5
PC19. Set the oven temperature and baking	-			
time for the product referring to the				
process parameter chart, load the		2	0.5	1.5
filled baking pans in the oven and		2	0.5	1.5
observe spacing between the pans				
PC20. Monitor oven parameters such as	-			
		2	0.5	1 5
temperature and time during baking		2	0.5	1.5
process				
PC21. Observe colour of baking product to		n	0 F	1 Г
detect over baking and to achieve		2	0.5	1.5
finished product of uniform quality	ŀ			
PC22. Unload the baked products from the		2	0.5	1.5
oven and check the quality of the				





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product through physical parameters such as colour, size, appearance, texture, aroma, etc. And ensure that the product meets the required standards			
PC23. Unload the pans/trays immediately after removing from the oven and place baked product on the cooling racks for cooling, and stack the emptied baking pans in the designated area	2	1	1
PC24. Adjust or reset controls to load the next batch/ product in the oven	2	1	1
PC25. Weigh the baked product to check the yield (from raw material to finished product)	2	1	1
PC26. Slice, pack, label and store the product following the product requirement / defined SOP's	2	1	1
PC27. Report discrepancies/concerns in each stage of production to department supervisor for immediate action	2	1	1
PC28. Create designs based on concepts of colour, shape, texture, pattern, form, etc. Or check designs from production order for developing specialty bakery products such as wedding cakes, celebration cakes, etc.	2	1	1
PC29. Organize tools and equipments required for filling, trimming, masking, covering, decoration and storage of specialty bakery products	2	1	1
PC30. Check the quality of finishing materials such as icings, fondants, glazes, chocolate, fruits, grains, nuts, etc. Required for preparation of specialty bakery products	2	0.5	1.5
PC31. Cut and shape the cake for decoration	2	0.5	1.5
PC32. Prepare icings, fondants, colours, fruits, etc. Required according to the design	3	1	2
PC33. Apply glazes, icings, or other	3	1	2









	toppings to baked goods using				
	spatulas, brushes, piping bags, etc.				
	PC34. Check the decorated product for its				
	conformance to customer order or		2	0.5	1.5
	organization standards				
	PC35. Check and maintain cleanliness and				
	required storage conditions for the		1	0.5	0.5
	product		•	0.5	0.5
	PC36. Set and maintain temperature of the				
	refrigeration system for storage of		3	1	2
	5 , 5		5	I	2
	finished product				
	PC37. Store the specialty bakery products		-		2
	following the product requirement		3	1	2
	and defined sops				
	PC38. Clean the work area, machineries,				
	equipment and tools using		3	1	2
	recommended cleaning agents and		5	'	2
	sanitizers				
	PC39. Attend minor repairs/faults of all		2	0.5	1.5
	machines (if any)		2	0.5	1.5
	PC40. Ensure periodic				
	(daily/weekly/monthly/quarterly/half				
	yearly/annual) maintenance of all				_
	machines and equipment following		3	1	2
	the SOP or following suppliers				
	instructions/manuals				
			100	35	65
	PC1. Document and maintain record of		100		
	details of all raw materials used				
	such as names of raw materials,				
	supplier details, receiving date/ date				
4. FIC/N5008	of manufacture, expiry date,		10	6	4
	supplier quality document, quality				
(Complete documentatio	parameters for all raw materials,				
	internal quality analysis report, etc.,				
n and	as per organization standards				
record	PC2. Maintain record of observations (if	100	_		
keeping	any) related to raw materials and		5	3	2
related	packaging materials				
to production	PC3. Load the raw material details in				
of baked	computer or in the ERP system		5	3	2
products in	followed by the organization for			Ŭ	-
artisan	future reference				
bakeries and	PC4. Document production plan with details				
maticcarias)	such as the product details, production		5	3	2
patisseries)	sequence, equipment and machinery			_	_





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details, efficiency and capacity utilization of equipment			
PC5. Document and maintain records of production details such as the product produced, production sequence, equipment and machinery details, efficiency and capacity utilization of equipment, etc.	1(0 6	4
PC6. Document and maintain records of process details such as type of raw material used, process parameters (temperature, time etc. as applicable) for the entire process in process chart or production log for all products produced	1	5 9	6
PC7. Document and maintain record of batch size, raw material used, yield after each stage of process, wastage, energy utilization and final products produced	1(0 6	4
PC8. Maintain record of observations or deviations (if any) related to production and process parameters	5	3	2
PC9. Load the production and process parameter details in computer or in the ERP system followed by the organization for future reference	5	3	2
PC10. Verify documents and track them with respect to the production schedule and process parameters, in case of quality concerns, and during quality management system audits	5	3	2
PC11. Document and maintain records of finished products details such as name of the product, batch number, time of packing, date of manufacture, date of expiry, other label details, primary and secondary packaging materials for all finished products, storage conditions, etc., as per organization standards	1() 6	4
PC12. Maintain record of observations or deviations (if any) related to finished products	5	3	2
PC13. Load the finished product details in computer or in the ERP system followed by the organization for future reference	5	3	2





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		1	1		
	PC14. Verify the documents and track them from finished product to raw materials, in case of quality concerns, and during quality management system audits		5	3	2
			100	60	40
	PC1. Comply with food safety and hygiene procedures followed in the organization	100	5	2	3
	PC2. Ensure personal hygiene by use of gloves, masks, hair net, ear plugs, boots etc.		6	1	5
	PC3. Ensure hygienic production of food by inspecting raw materials, ingredients, finished products etc for compliance to physical, chemical and microbiological procedures		5	2	3
5. FIC/N9001: Food Safety,	PC4. Pack products in appropriate packaging material, label and store them in designated area free from pests, flies etc.		10	4	6
hygiene and sanitation for processing	PC5. Clean, maintain and monitor food processing equipments periodically, using it only for the specified purpose		5	2	3
food products	PC6. Use safety equipment such as fire extinguisher, eye wash unit, first aid kit when required		10	4	6
	PC7. Follow housekeeping practices by having designated area for machines/tools		5	2	3
	PC8. Follow industry standards like GMP, HACCP and product recall		10	4	6
	PC9. Attend training on hazard management to understand type of physical, chemical and microbiological hazards		5	1	4
	PC10.Identify, document and report problems such as rodents and pests to management		5	1	4
	PC11.Conduct workplace checklist audit before and after work to ensure safety and hygiene		5	1	4
	PC12.Document and maintain raw material, process, packaging material to maintain the effectiveness of quality system		4	1	3









	100	35	65
PC 16. Follow stock rotation based on FEFO/FIFO	10	4	6
products and store them in different storage areas according to safe food practices	5	2	3
PC14. Store raw materials, finished products and allergens separately to prevent cross contamination PC15. Label raw materials and finished	5	2	3
PC13. Determine the quality of food using criteria such as odor, color, taste and best before date and take immediate measures to prevent spoilage	5	2	3