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AIDS HELPLINE: 0800-123-22 Prevention is the cure

NOTICE 831 OF 2001

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

FOOD

Registered by NSB 06, Manufacturing, Engineering and Technology, publishes the following unit standards-based qualifications for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purposes of the qualifications, and the titles and specific outcomes of the unit standards upon which qualifications are based. The full qualifications and unit standards can be accessed via the SAQA web-site at www.saqa.co.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, 659 Pienaar street, Brooklyn, Pretoria.

Comment on the qualifications and unit standards should reach SAQA at the address *below* and no later than 12 May 2001. All correspondence should be marked Standards Setting – SGB for Higher Education and Training and addressed to

The Director: Standard Setting and Development SAQA

Attention: Mrs S. Vasuthevan
Postnet Suite 248
Private Bag X06
Waterkloof

0145 or faxed to 012 – 346 5812

SAMUEL B.A. ISAACS EXECUTIVE OFFICER

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NATIONAL CERTIFICATE IN FOOD AND BEVERAGES PROCESSING: FOOD PROCESSING SPECIALISATION NQF 3

FIELD:

Manufacturing, Engineering and Technology

SUB-FIELD:

Manufacturing and Assembly

NQF LEVEL:

3

CREDITS:

140

PURPOSE:

A person acquiring this qualification will be able to manufacture a safe, quality assured food product by operating, controlling and maintaining a specialized food product manufacturing line, from the raw materials until the final product is manufactured.

A choice can be made from the following specialised food manufacturing domains:

- Cereals, Spices, Snacks and Condiments Processing, or
- Fats and Oils processing, or
- Chocolate Confectionery Processing, or
- Sugar Confectionery Processing, or
- Fish or Seafood processing, or
- · Meat processing, or
- Fruit and Vegetable Processing.

QUALIFICATION TITLE MATRIX

Fundamental		
Level 3	• Language	20
	Mathematics	16
Core		Total 36
Level 2	Demonstrate an understanding of occupational health, safety and environmental legislation relevant to the food or beverage environment.	4
	Clean and sanitise a food processing system using an automated cleaning-in-place system.	5
	Demonstrate knowledge of introductory principles of chemistry and physics (To be submitted by the Dairy Technology SGB).	4

	 Demonstrate an understanding of food safety practices and procedures in the food manufacturing environment. Monitor quality control practices in a food manufacturing environment. Demonstrate an understanding of heating and cooling procedures. Apply microbiological principles in a food environment (To be submitted by the Dairy Technology SGB). Apply continuous first line maintenance on processing equipment Demonstrate understanding of supply chain management Demonstrate understanding of introductory business principles. 	7 4 4 6 10 3
Level 3	 Demonstrate knowledge of and produce computer spreadsheets using base functions (Registered). Demonstrate an understanding of food safety practices and 	3

CEREALS, S	PICES, SNACKS AND CONDIMENTS PROCESSING	
Compulsory Electives		
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
Level 3	Grade and sort food raw materials.	6
		Total 14
Choice Electives	(Choose a minimum of 16 credits)	
Level 2	Store and route food raw materials.	6
	Coat or dip a food product using automated equipment.	6
Level 3	Receive food raw materials.	8
	Fumigate food raw materials before further processing.	8
	Fry food products using vacuum or atmospheric frying equipment.	8

GRAND TOTAL		Total 16
	Manufacture wafer products.	20
	Determine the quality of food products using sensory evaluation.	4
Level 4	Demonstrate an understanding of the relationship between micro-organisms and food spoilage.	8
	Monitor the temperature of food products and their environment for quality control purposes.	2
	Roast beans or nuts.	8
	Dry mill a food product.	20
	Dehydrate food products.	10
	Extrude food products using a continuous extruder.	9

	ILS PROCESSING	
Compulsory Electives		
Level 3	Refine crude oils using automated processing equipment.	20
,	Convert edible oils into fats using automated equipment.	20
		Total 40
Choice Electives	(Choose a minimum of 10 credits)	
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
	Store and route food raw materials.	6
Level 3	Receive food raw materials.	8
	Fumigate food raw materials before further processing.	8
	Grade and sort food raw materials.	6
	Condition and express oil from oil plant seeds.	20
	Extract and filter oils using a chemical process.	20
	Freeze or chill a food product.	8

	Monitor the temperature of food products and their environment for quality control purposes.	2
Level 4	Determine the quality of food products using sensory evaluation.	4
GRAND TOTAL		Total 10
ONARD TOTAL		140

CHOCOLAT	E CONFECTIONERY PROCESSING	
Compulsory Electives		
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
Level 3	Temper liquid chocolate manually.	8
	Cook confectionery mixtures using continuous equipment.	12
	Monitor the temperature of food products and their environment for quality control purposes.	2
Level 4	Determine the quality of food products using sensory evaluation.	4
		Total 34
Choice Electives	(Choose a minimum of 16 credits)	······································
Level 3	Manufacture layered confectionery products.	8
	Mould confectionery products.	16
	Temper liquid chocolate using automated tempering equipment.	12
	Manufacture confectionery products using the single shot moulding process.	16
	Aerate a confectionery product.	20
	Enrobe confectionery products.	8
	Manufacture hollow-moulded chocolate confectionery products.	8
	Roast beans or nuts.	8
Level 4	Pan confectionery products.	18

	Manufacture starch moulded confectionery products.	12
	Refine and conch a chocolate mass or compound.	16
	Manufacture wafer products.	20
	Manufacture chocolate crumb.	35
GRAND TOTAL		Total 16

SUGAR CONFE	CTIONERY PROCESSING	
Compulsory Electives		
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
Level 3	Cook confectionery mixtures using continuous equipment.	12
	Monitor the temperature of food products and their environment for quality control purposes.	2
Level 4	Determine the quality of food products using sensory evaluation.	4
		Total 26
Choice Electives	(Choose a minimum of 24 credits)	1
Level 2	Temper sugar confectionery mass.	4
	Cut-and-wrap confectionery products using automated production equipment.	6
	Form and press confectionery tablets.	6
	Manufacture fondant.	6
Level 3	Manufacture layered confectionery products.	8
	Mould confectionery products.	16
	 Manufacture confectionery products using the single shot moulding process. 	16
	Aerate a confectionery product.	20
	Pan confectionery products.	18

	Manufacture starch moulded confectionery products.	12
		Total 24
GRAND TOTAL		140

FISH OR SEAF	OOD PROCESSING	
Compulsory Electives		
Level 3	Freeze or chill a food product.	8
	Prepare raw fish or seafood for further processing.	12
	 Monitor the temperature of food products and their environment for quality control purposes. 	2
Level 4	Demonstrate an understanding of the relationship between micro-organisms and food spoilage.	8
Choose at least	one of the following compulsory electives	
Level 2	Fleck and fillet fish manually.	5
Level 3	Cut fish by the use of automated equipment.	8
Choose at least	one of the following compulsory electives	
Level 3	Manufactured cured fish or meat products.	8
	Smoke fish or meat.	8
	Salt and dry fish or meat.	4
Chai		Min 39
Choice Electives	(Choose a minimum of 11 credits)	
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
	Sort and handle raw seafood manually.	5
	Trim and portion cut fish fillets manually.	3
	Mince fish or meat by using automated equipment.	4
	Coat or dip a food product using automated equipment.	6
Level 3	Sterilise a food product using retorting equipment.	12

GRAND TOTAL		140
CDAND TOTAL		Total 11
Level 4	Determine the quality of food products using sensory evaluation.	4
	Process and pack live seafood.	8
	Form or fill raw minced fish or meat products using automated equipment.	5
	 Fry food products using vacuum or atmospheric frying equipment. 	8

MEAT PROC	ESSING	
Compulsory		
Electives		···
Level 2	Mince fish or meat by using automated equipment.	4
Level 3	Freeze or chill a food product.	8
	 Form or fill raw minced fish or meat products using automated equipment. 	5
	Monitor the temperature of food products and their environment for quality control purposes.	2
Level 4	Demonstrate an understanding of the relationship between micro-organisms and food spoilage.	8
Choose at lea	st one of the following compulsory electives	
Level 3	Split and cut pig carcasses into primal cuts.	3
	Break beef sides and debone primal cuts.	8
Choose at lea	st one of the following compulsory electives	
Level 3	Manufacture emulsified meat products.	8
	Manufactured cured fish or meat products.	8
	Smoke fish or meat.	8
	Salt and dry fish or meat.	4
Choice Electives	(Choose a minimum of 16 credits)	Min 34
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using	4

	automated equipment.	
	Prepare pig carcasses for splitting.	3
	Derind and debone various pork cuts.	3
	Sort pork cuts for further processing.	3
	Coat or dip a food product using automated equipment.	6
Level 3	Sterilise a food product using retorting equipment.	12
-	Fry food products using vacuum or atmospheric frying equipment.	8
Level 4	Determine the quality of food products using sensory evaluation.	4
	Manufacture fermented meat products.	10
CDAND TOTAL		Total 16
GRAND TOTAL		140

FRUIT AND	VEGETABLE PROCESSING	
Compulsory Electives		
Level 2	Store and route food raw materials.	6
Level 3	Grade and sort food raw materials.	6
	Process prepared fruit raw materials.	20
		Total 32
Choice Electives	(Choose a minimum of 18 credits)	
Level 2	Pre-batch food raw materials.	4
	Mix or blend food raw materials for processing using automated equipment.	4
	Peel fruit and vegetables for further processing.	5
	Coat or dip a food product using automated equipment.	6
Level 3	Receive food raw materials.	8
	Fumigate food raw materials before further processing.	8
	Shape fruit and vegetables for further processing.	. 8
	Sterilise a food product using retorting equipment.	12

		Total 18
l .	Evaporate a food product by means of a falling or rising film evaporator. (To be submitted by the Dairy technology SGB).	20
	Demonstrate an understanding of the relationship between micro-organisms and food spoilage.	8
Level 4	Determine the quality of food products using sensory evaluation.	4
-	 Monitor the temperature of food products and their environment for quality control purposes. 	2
	Dehydrate food products.	10
	 Evaporate a food product by means of an atmospheric or vacuum type evaporator. 	12
	 Pasteurise or thermise a liquid food product by means of a plate or tubular heat exchanger (To be submitted by the dairy technology SGB). 	8
	Pasteurise a food product by means of a batch pasteuriser.	6
	Freeze or chill a food product.	8 -
	 Fry food products using vacuum or atmospheric frying equipment. 	8

UNIT STANDARDS FOR FOOD PROCESSING SPECIALISATION NQF 3

FUNDAMENTAL UNIT STANDARDS:

Title 1: Language unit standards (Interim registered unit standards).

Title 2: Mathematics unit standards (Interim registered unit standards).

CORE UNIT STANDARDS:

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Demonstrate an understanding of occupational health, safety and environmental legislation relevant to the food or beverage environment.

Title 2: Clean and sanitise a food processing system using an automated cleaning-inplace system.

Title 3: Demonstrate knowledge of introductory principles of chemistry and physics.

Title 4:

Demonstrate knowledge of and produce computer spreadsheets using base functions (Registered).

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Demonstrate an understanding of food safety practices and procedures in the food manufacturing environment.

Title 2: Monitor quality control practices in a food manufacturing environment.

Title 3: Demonstrate an understanding of heating and cooling procedures.

Title 4: Apply microbiological principles in a food environment.

Title 5: Apply continuous first line maintenance on processing equipment.

Title 6: Demonstrate understanding of supply chain management.

Title 7: Demonstrate understanding of introductory business principles.

CEREALS, SPICES, SNACKS AND CONDIMENTS PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Store and route food raw materials.

Title 4: Coat or dip a food product using automated equipment.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Receive food raw materials.

Title 2: Fumigate food raw materials before further processing.

Title 3: Grade and sort food raw materials.

Title 4: Fry food products using vacuum or atmospheric frying equipment.

Title 5: Extrude food products using a continuous extruder.

Title 6: Dehydrate food products.

Title 7: Dry mill a food product.

Title 8: Roast beans or nuts.

Title 9:

Monitor the temperature of food products and their environment for quality control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Demonstrate an understanding of the relationship between micro-organisms

and food spoilage.

Title 2: Determine the quality of food products using sensory evaluation.

Title 3: Manufacture wafer products.

FATS AND OILS PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Store and route food raw materials.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Receive food raw materials.

Title 2: Fumigate food raw materials before further processing.

Title 3: Grade and sort food raw materials.

Title 4: Freeze or chill a food product.

Title 5: Condition and express oil from oil plant seeds.

Title 6: Extract and filter oils using a chemical process.

Title 7: Refine crude oils using automated processing equipment.

Title 8: Convert edible oils into fats using automated equipment.

Title 9: Monitor the temperature of food products and their environment for quality control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Determine the quality of food products using sensory evaluation.

CHOCOLATE CONFECTIONERY PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Manufacture layered confectionery products.

Title 2: Mould confectionery products.

Title 3: Temper liquid chocolate using automated tempering equipment.

Title 4: Temper liquid chocolate manually.

Title 5: Manufacture confectionery products using a single shot moulding process.

Title 6: Enrobe confectionery products.

Title 7: Manufacture hollow-moulded chocolate confectionery products.

Title 8: Aerate a confectionery product.

Title 9: Roast beans or nuts.

Title 10: Cook confectionery mixtures using continuous equipment.

Title 11: Monitor the temperature of food products and their environment for quality control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Determine the quality of food products using sensory evaluation.

Title 2: Pan confectionery products.

Title 3: Manufacture starch moulded confectionery products.

Title 4: Refine and conch chocolate mass or compound.

Title 5: Manufacture wafer products.

Title 6: Manufacture chocolate crumb.

SUGAR CONFECTIONERY PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Temper sugar confectionery mass.

Title 4: Cut-and-wrap confectionery products using automated production equipment.

Title 5: Form and press confectionery tablets.

Title 6: Manufacture fondant.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Manufacture layered confectionery products.

Title 2: Mould confectionery products.

Title 3: Manufacture confectionery products using a single shot moulding process.

Title 4: Cook confectionery mixtures using continuous equipment.

Title 5: Monitor the temperature of food products and their environment for quality control purposes.

Title 6: Aerate a confectionery product.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Determine the quality of food products using sensory evaluation.

Title 2: Pan confectionery products.

Title 3: Manufacture starch moulded confectionery products.

FISH OR SEAFOOD PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Sort and handle raw seafood manually.

Title 4: Fleck and fillet fish manually.

Title 5: Trim and portion cut fish fillets manually.

Title 6: Mince fish or meat using automated mincing equipment.

Title 7: Coat or dip a food product using automated equipment.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Sterilise a food product using retorting equipment.

Title 2: Fry food products using vacuum or atmospheric frying equipment.

Title 3: Freeze or chill a food product.

Title 4: Form or fill raw minced fish or meat products using automated equipment.

Title 5: Manufacture cured fish or meat products.

Title 6: Process and pack live seafood.

Title 7: Prepare raw fish or seafood for further processing.

Title 8: Cut fish by use of automated equipment.

Title 9: Smoke fish or meat.

Title 10: Salt and dry fish or meat.

Title 11: Monitor the temperature of food products and their environment for quality

control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Demonstrate an understanding of the relationship between micro-organisms and food spoilage.

Title 2: Determine the quality of food products using sensory evaluation.

MEAT PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Prepare pig carcasses for splitting.

Title 4: Derind and debone various pork cuts.

Title 5: Sort deboned pork cuts for further processing.

Title 6: Mince fish or meat using automated mincing equipment.

Title 7: Coat or dip a food product using automated equipment.

UNIT STANDARDS AT NQF LEVEL 3

Title 1: Sterilise a food product using retorting equipment.

Title 2: Fry food products using vacuum or atmospheric frying equipment.

Title 3: Freeze or chill a food product.

Title 4: Split and cut pig carcasses into primal cuts.

Title 5: Break beef sides and debone primal beef cuts.

Title 6: Form or fill raw minced fish or meat products using automated equipment.

Title 7: Manufacture emulsified meat products.

Title 8: Manufacture cured fish or meat products.

Title 9: Smoke fish or meat.

Title 10: Salt and dry fish or meat.

Title 11: Monitor the temperature of food products and their environment for quality control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1: Demonstrate an understanding of the relationship between micro-organisms and food spoilage.

Title 2: Determine the quality of food products using sensory evaluation.

Title 3: Manufacture fermented meat sausages.

FRUIT AND VEGETABLE PROCESSING

UNIT STANDARDS AT NQF LEVEL 2

Title 1: Pre-batch food raw materials.

Title 2: Mix or blend food raw materials for processing using automated equipment.

Title 3: Peel fruit and vegetables for further processing.

Title 4:

Store and route food raw materials.

Title 5

Coat or dip a food product using automated equipment.

UNIT STANDARDS AT NQF LEVEL 3

Title 1:

Receive food raw materials.

Title 2:

Fumigate food raw materials before further processing.

Title 3:

Grade and sort food raw materials.

Title 4:

Shape fruit and vegetables for further processing.

Title 5:

Process prepared fruit and vegetables.

Title 6:

Sterilise a food product using retorting equipment.

Title 7:

Fry food products using vacuum or atmospheric frying equipment.

Title 8:

Freeze or chill a food product.

Title 9:

Pasteurise a food product by means of a batch pasteuriser.

Title 10:

Evaporate a food product by means of an atmospheric or vacuum type

evaporator.

Title 11:

Dehydrate food products.

Title 12:

Monitor the temperature of food products and their environment for quality

control purposes.

UNIT STANDARDS AT NQF LEVEL 4

Title 1:

Demonstrate an understanding of the relationship between micro-organisms

and food spoilage.

Title 2:

Determine the quality of food products using sensory evaluation.

CORE UNIT STANDARDS:

UNIT STANDARDS AT NQF LEVEL 2

1. TITLE: DEMONSTRATE AN UNDERSTANDING OF

OCCUPATIONAL HEALTH, SAFETY AND

ENVIRONMENTAL LEGISLATION RELEVANT TO THE

FOOD OR BEVERAGE ENVIRONMENT.

Specific outcome 1.1: Demonstrate an understanding of personal health, safety and

environmental legislation in the food or beverage

manufacturing environment.

Specific outcome 1.2: Demonstrate an understanding of safe working practices in a

food or beverage manufacturing environment.

Specific outcome 1.3: Deal with safety emergencies.

2. TITLE: CLEAN AND SANITISE A FOOD PROCESSING SYSTEM

USING AN AUTOMATED CLEANING-IN-PLACE SYSTEM.

Specific outcome 2.1: Demonstrate knowledge of cleaning-in-place systems.

Specific outcome 2.2: Prepare to clean and sanitise a food processing system.

Specific outcome 2.3: Clean and sanitise a food processing system.

Specific outcome 2.4: Perform end of cleaning-in-place procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

I. TITLE: DEMONSTRATE AN UNDERSTANDING OF FOOD SAFETY

PRACTICES AND PROCEDURES IN THE FOOD

MANUFACTURING ENVIRONMENT.

Specific outcome 1.1: Demonstrate an understanding of food safety practices and

procedures in food manufacturing environment.

Specific outcome 1.2: Identify critical control points or HACCP's in a food

manufacturing environment.

Specific outcome 1.3: Identify good manufacturing practices.

2. TITLE: MONITOR QUALITY CONTROL PRACTICES IN A FOOD

MANUFACTURING ENVIRONMENT.

Specific outcome 2.1: Demonstrate an understanding of quality control practices in a

food manufacturing environment.

Specific outcome 2.2: Integrate quality control practices into a food production or

packing line.

Specific outcome 2.3: Monitor the quality on a food production or packaging line.

Specific outcome 2.4: Resolve non-conformance to quality in food products or

containers.

3. TITLE: DEMONSTRATE AN UNDERSTANDING OF HEATING AND

COOLING PROCEDURES.

Specific outcome 3.1: Demonstrate an understanding of heating and cooling

principles.

Specific outcome 3.2: Demonstrate an understanding of heat preservation and

processing used in the food manufacturing environment.

Specific outcome 3.3: Demonstrate an understanding of cold preservation and

processing used in the food manufacturing environment.

CEREALS, SPICES, SNACKS AND CONDIMENTS PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1. TITLE: PRE-BATCH FOOD RAW MATERIALS.

Specific outcome 1.1: Demonstrate an understanding of pre-batching.

Specific outcome 1.2: Prepare for pre-batching of raw materials.

Specific outcome 1.3: Weigh and measure raw materials.

Specific outcome 1.4: Perform end of pre-batching procedures.

2. TITLE: MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 4.1: Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 4.2: Prepare for mixing or blending of food raw materials.

Specific outcome 4.3: Mix or blend food raw materials.

Specific outcome 4.4: Perform end of mixing or blending procedures.

3. TITLE: STORE AND ROUTE FOOD RAW MATERIALS.

Specific outcome 3.1: Demonstrate an understanding on storage and routing of

food raw materials.

Specific outcome 3.2: Prepare to store and route food raw materials.

Specific outcome 3.3: Store and route food raw materials.

Specific outcome 3.4:

Perform end of storing and routing procedures.

4. TITLE:

COAT OR DIP A FOOD PRODUCT USING AUTOMATED

EQUIPMENT.

Specific outcome 4.1:

Demonstrate an understanding of coating or dipping

procedures for food products.

Specific outcome 4.2:

Prepare for coating or dipping of a food product.

Specific outcome 4.3:

Coat or dip a food product.

Specific outcome 4.4:

Perform end of coating or dipping procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE:

RECEIVE FOOD RAW MATERIALS.

Specific outcome 1.1:

Demonstrate an understanding of receiving food raw

materials.

Specific outcome 1.2:

Prepare for food raw materials receiving.

Specific outcome 1.3:

Receive food raw materials.

Specific outcome 1.4:

Perform end of receiving procedures.

TITLE: 2.

FUMIGATE FOOD RAW MATERIALS BEFORE FURTHER

PROCESSING.

Specific outcome 2.1:

Demonstrate an understanding of fumigation of food raw

materials for further processing.

Specific outcome 2.2:

Prepare for fumigation of food raw materials for further

processing.

Specific outcome 2.3:

Fumigate food raw materials for further processing.

Specific outcome 2.4:

Perform end of fumigation procedures.

3. TITLE:

GRADE AND SORT FOOD RAW MATERIALS.

Specific outcome 3.1:

Demonstrate an understanding of grading and sorting of food

raw materials.

Specific outcome 3.2:

Prepare for grading and sorting of food raw materials.

Specific outcome 3.3:

Grade and sort food raw materials.

Specific outcome 3.4:

Perform end of grading and sorting procedures.

4. TITLE: FRY FOOD PRODUCTS USING VACUUM OR ATMOSPHERIC FRYING EQUIPMENT.

Specific outcome 4.1: Demonstrate an understanding of the frying principles of

food products.

Specific outcome 4.2: Prepare for frying of food products.

Specific outcome 4.3: Fry food products.

Specific outcome 4.4: Perform end of frying procedures.

5. TITLE:

EXTRUDE FOOD PRODUCTS USING A CONTINUOUS

EXTRUDER.

Specific outcome 5.1: Demonstrate an understanding of extrusion.

Specific outcome 5.2: Prepare for extrusion.

Specific outcome 5.3: Extrude food products.

Specific outcome 5.4: Perform end of extrusion procedures.

6. TITLE:

DEHYDRATE FOOD PRODUCTS.

Specific outcome 6.1: Demonstrate an understanding of dehydration of food

products.

Specific outcome 6.2: Prepare for dehydrating of food products.

Specific outcome 6.3: Dehydrate food products.

Specific outcome 6.4: Perform end of dehydration procedures.

7. TITLE: DRY MILL A FOOD PRODUCT.

Specific outcome 7.1: Demonstrate an understanding of on the milling of food

products.

Specific outcome 7.2: Prepare for milling of a food product.

Specific outcome 7.3: Mill a food product.

Specific outcome 7.4: Perform end of milling procedures.

8. TITLE:

ROAST BEANS OR NUTS.

Specific outcome 8.1: Demonstrate an understanding of bean or nut roasting. Specific outcome 8.2: Prepare for bean or nut roasting.

Specific outcome 8.3: Clean beans or nuts for roasting.

Specific outcome 8.4: Roast the beans or nuts.

Specific outcome 8.5: Perform end of roasting procedures.

9. TITLE: MONITOR THE TEMPERATURE OF FOOD PRODUCTS

AND THEIR ENVIRONMENT FOR QUALITY CONTROL

PURPOSES.

Specific outcome 9.1: Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 9.2: Prepare for monitoring temperature in the food environment.

Specific outcome 9.3: Monitor the temperature of food products and their

environment.

Specific outcome 9.4: Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE: DEMONSTRATE AN UNDERSTANDING OF THE

RELATIONSHIP BETWEEN MICRO-ORGANISMS AND

FOOD SPOILAGE.

Specific outcome 1.1: Demonstrate an understanding of the occurrence of micro-

organisms in a food environment.

Specific outcome 1.2: Demonstrate an understanding of the effect of food

manufacturing processes on microbiological growth.

Specific outcome 1.3: Demonstrate an understanding of determining the

microbiological status in food products or a food

manufacturing environment.

Specific outcome 1.4: Demonstrate an understanding of microbiological food safety

procedures and practices in a food environment.

2. TITLE: DETERMINE THE QUALITY OF FOOD PRODUCTS USING

SENSORY EVALUATION.

Specific outcome 2.1: Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 2.2: Prepare for the determination of the sensory quality of a food

product.

Specific outcome 2.3: Determine the sensory quality of a food product.

Specific outcome 2.4: Report on the sensory quality of a food product.

3. TITLE: MANUFACTURE WAFER PRODUCTS.

Specific outcome 3.1: Demonstrate an understanding on wafer manufacturing.

Specific outcome 3.2: Prepare to manufacture wafer products.

Specific outcome 3.3: Manufacture wafer products.

Specific outcome 3.4: Perform end of wafer manufacturing procedures.

FATS AND OILS PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1. TITLE: PRE-BATCH FOOD RAW MATERIALS.

Specific outcome 1.1: Demonstrate an understanding of pre-batching.

Specific outcome 1.2: Prepare for pre-batching of raw materials.

Specific outcome 1.3: Weigh and measure raw materials.

Specific outcome 1.4: Perform end of pre-batching procedures.

2. TITLE: MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 2.1: Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 2.2: Prepare for mixing or blending of food raw materials.

Specific outcome 2.3: Mix or blend food raw materials.

Specific outcome 2.4: Perform end of mixing or blending procedures.

3. TITLE: STORE AND ROUTE FOOD RAW MATERIALS.

Specific outcome 3.1: Demonstrate an understanding on storage and routing of

food raw materials.

Specific outcome 3.2: Prepare to store and route food raw materials.

Specific outcome 3.3: Store and route food raw materials.

Specific outcome 3.4: Perform end of storing and routing procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE: RECEIVE FOOD RAW MATERIALS.

Specific outcome 1.1: Demonstrate an understanding of receiving food raw

materials.

Specific outcome 1.2: Prepare for food raw materials receiving.

Specific outcome 1.3: Receive food raw materials.

Specific outcome 1.4: Perform end of receiving procedures.

2. TITLE: FUMIGATE FOOD RAW MATERIALS BEFORE FURTHER PROCESSING.

Specific outcome 2.1: Demonstrate an understanding of fumigation of food raw

materials for further processing.

Specific outcome 2.2: Prepare for fumigation of food raw materials for further

processing.

Specific outcome 2.3: Fumigate food raw materials for further processing.

Specific outcome 2.4: Perform end of fumigation procedures.

3. TITLE: GRADE AND SORT FOOD RAW MATERIALS.

Specific outcome 3.1: Demonstrate an understanding of grading and sorting of food

raw materials.

Specific outcome 3.2: Prepare for grading and sorting of food raw materials.

Specific outcome 3.3: Grade and sort food raw materials.

Specific outcome 3.4: Perform end of grading and sorting procedures.

4. TITLE: FREEZE OR CHILL A FOOD PRODUCT.

Specific outcome 4.1: Demonstrate an understanding of freezing or chilling of food

products.

Specific outcome 4.2: Prepare for freezing or chilling of a food product.

Specific outcome 4.3: Freeze or chill a food product.

Specific outcome 4.4: Perform end of freezing or chilling procedures.

5. TITLE:

CONDITION AND EXPRESS OIL FROM OIL PLANT

SEEDS.

Specific outcome 5.1:

Demonstrate an understanding on conditioning and

expressing oil from oil plant seeds.

Specific outcome 5.2:

Prepare the oil plant seeds for conditioning and expressing

of oil.

Specific outcome 5.3:

Condition oil seeds using automated equipment.

Specific outcome 5.4:

Express oil from conditioned oil plant seeds.

Specific outcome 5.5:

Perform end of conditioning and expressing procedures.

6. TITLE:

EXTRACT AND FILTER OILS USING A CHEMICAL

PROCESS.

Specific outcome 6.1:

Demonstrate an understanding of extracting and filtering of

oils using a chemical process.

Specific outcome 6.2:

Prepare for extracting and filtering of oils using a chemical

solvent.

Specific outcome 6.3:

Extract and filter oils using a chemical solvent.

Specific outcome 6.4:

Perform end of filtering and extracting procedures.

7. TITLE:

REFINE CRUDE OILS USING AUTOMATED

PROCESSING EQUIPMENT.

Specific outcome 7.1:

Demonstrate an understanding of crude refining oils.

Specific outcome 7.2:

Prepare for refining of crude oils.

Specific outcome 7.3:

Refine crude oils.

Specific outcome 7.4:

Perform end of refining procedures.

8. TITLE:

CONVERT EDIBLE OILS INTO FATS USING

AUTOMATED EQUIPMENT.

Specific outcome 8.1:

Demonstrate an understanding on converting edible oils into

fats.

Specific outcome 8.2:

Prepare for the conversion of processes of edible oils into

fats.

Specific outcome 8.3:

Convert edible oil into a fat.

Specific outcome 8.4:

Perform end of oil into fat converting procedures.

9. TITLE:

MONITOR THE TEMPERATURE OF FOOD PRODUCTS
AND THEIR ENVIRONMENT FOR QUALITY CONTROL

PURPOSES.

Specific outcome 9.1:

Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 9.2:

Prepare for monitoring temperature in the food environment.

Specific outcome 9.3:

Monitor the temperature of food products and their

environment.

Specific outcome 9.4:

Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE:

DETERMINE THE QUALITY OF FOOD PRODUCTS USING

SENSORY EVALUATION.

Specific outcome 1.1:

Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 1.2:

Prepare for the determination of the sensory quality of a food

product.

Specific outcome 1.3:

Determine the sensory quality of a food product.

Specific outcome 1.4:

Report on the sensory quality of a food product.

CHOCOLATE CONFECTIONERY PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1. TITLE:

PRE-BATCH FOOD RAW MATERIALS.

Specific outcome 1.1:

Demonstrate an understanding of pre-batching.

Specific outcome 1.2:

Prepare for pre-batching of raw materials.

Specific outcome 1.3:

Weigh and measure raw materials.

Specific outcome 1.4:

Perform end of pre-batching procedures.

2. TITLE:

MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 2.1:

Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 2.2:

Prepare for mixing or blending of food raw materials.

Specific outcome 2.3: Mix or blend food raw materials.

Specific outcome 2.4: Perform end of mixing or blending procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE: MANUFACTURE LAYERED CONFECTIONERY

PRODUCTS.

Specific outcome 1.1: Demonstrate an understanding of layered confectionery

manufacturing.

Specific outcome 1.2: Prepare for layering confectionery products.

Specific outcome 1.3: Manufacture layered confectionery products.

Specific outcome 1.4: Perform end of layered confectionery procedures.

2. TITLE: MOULD CONFECTIONERY PRODUCTS.

Specific outcome 2.1: Demonstrate an understanding of moulding of confectionery

products.

Specific outcome 2.2: Prepare for moulding.

Specific outcome 2.3: Mould confectionery products.

Specific outcome 2.4: Perform end of moulding procedures.

3. TITLE: TEMPER LIQUID CHOCOLATE USING AUTOMATED

TEMPERING EQUIPMENT.

Specific outcome 3.1: Demonstrate an understanding of automated tempering

equipment.

Specific outcome 3.2: Prepare to temper liquid chocolate.

Specific outcome 3.3: Temper liquid chocolate.

Specific outcome 3.4: Perform end of tempering procedures.

4. TITLE: TEMPER LIQUID CHOCOLATE MANUALLY.

Specific outcome 4.1: Demonstrate an understanding of manual tempering of

chocolate.

Specific outcome 4.2: Prepare to temper liquid chocolate manually.

Specific outcome 4.3: Temper liquid chocolate manually.

Specific outcome 4.4: Perform end of manual tempering procedures.

5.	TITLE:	MANUFACTURE CONFECTIONERY PRODUCTS USING A SINGLE SHOT MOULDING PROCESS.
	Specific outcome 5.1:	Demonstrate an understanding of the single shot moulding process.
	Specific outcome 5.2:	Prepare to manufacture confectionery products using the single shot moulding process.
	Specific outcome 5.3:	Manufacture confectionery products using the single shot moulding process.
	Specific outcome 5.4:	Perform end of single shot moulding procedures.
6.	TITLE:	ENROBE CONFECTIONERY PRODUCTS.
	Specific outcome 6.1:	Demonstrate an understanding of enrobing of confectionery products.
	Specific outcome 6.2:	Prepare for enrobing of confectionery products.
	Specific outcome 6.3:	Enrobe confectionery products.
	Specific outcome 6.4:	Perform end of enrobing procedures.
7.	TITLE:	MANUFACTURE HOLLOW-MOULDED CHOCOLATE CONFECTIONERY PRODUCTS.
	Specific outcome 7.1:	Demonstrate an understanding of hollow- moulded confectionery products.
	Specific outcome 7.2:	Prepare for hollow- moulding of confectionery products.
	Specific outcome 7.3:	Hollow-mould chocolate confectionery products.
	Specific outcome 7.4:	Perform end of moulding procedures.
8.	TITLE:	AERATE A CONFECTIONERY PRODUCT.
	Specific outcome 8.1:	Demonstrate an understanding of aerating of confectionery products.
	Specific outcome 8.2:	Prepare for aerating of a confectionery product.
	Specific outcome 8.3:	Aerate confectionery products.
	Specific outcome 8.4:	Perform end of aerating procedures.

9. TITLE: ROAST BEANS OR NUTS.

Specific outcome 9.1: Demonstrate an understanding of bean or nut roasting.

Specific outcome 9.2: Prepare for bean or nut roasting.

Specific outcome 9.3: Clean beans or nuts for roasting.

Specific outcome 9.4: Roast the beans or nuts.

Specific outcome 9.5: Perform end of roasting procedures.

10. TITLE: COOK CONFECTIONERY MIXTURES USING CONTINUOUS EQUIPMENT.

Specific outcome 10.1: Demonstrate an understanding of cooking of confectionery

mixtures.

Specific outcome 10.2: Prepare for cooking of confectionery mixtures.

Specific outcome 10.3: Cook a confectionery mixture.

Specific outcome 10.4: Perform end of cooking procedures.

11. TITLE: MONITOR THE TEMPERATURE OF FOOD PRODUCTS

AND THEIR ENVIRONMENT FOR QUALITY CONTROL

PURPOSES.

Specific outcome 11.1: Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 11.2: Prepare for monitoring temperature in the food environment.

Specific outcome 11.3: Monitor the temperature of food products and their

environment.

Specific outcome 11.4: Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE: DETERMINE THE QUALITY OF FOOD PRODUCTS USING

SENSORY EVALUATION.

Specific outcome 1.1: Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 1.2: Prepare for the determination of the sensory quality of a food

product.

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Specific outcome 5.1:

Specific outcome 5.2:

Specific outcome 1.3: Determine the sensory quality of a food product. Specific outcome 1.4: Report on the sensory quality of a food product. TITLE: PAN CONFECTIONERY PRODUCTS. Specific outcome 2.1: Demonstrate an understanding of panning confectionery products. Specific outcome 2.2: Prepare to pan confectionery products. Specific outcome 2.3: Pan confectionery products. Specific outcome 2.4: Perform end of panning procedures. TITLE: MANUFACTURE STARCH MOULDED CONFECTIONERY PRODUCTS. Specific outcome 3.1: Demonstrate an understanding on starch moulding of confectionery products. Specific outcome 3.2: Prepare for starch moulding and depositing of confectionery mass. Specific outcome 3.3: Manufacture starch moulds. Specific outcome 3.4: Mould confectionery products. Specific outcome 3.5: Perform end of starch moulding procedures. TITLE: REFINE AND CONCH CHOCOLATE MASS OR COMPOUND. Specific outcome 4.1: Demonstrate an understanding of refining and conching a chocolate mass or a compound. Specific outcome 4.2: Prepare to refining and conching a chocolate mass or compound. Specific outcome 4.3: Refine a chocolate mass or a compound. Specific outcome 4.4: Conch a chocolate mass or a compound. Specific outcome 4.5: Perform end of refining and conching procedures. TITLE: MANUFACTURE WAFER PRODUCTS.

Demonstrate an understanding on wafer manufacturing.

Prepare to manufacture wafer products.

Specific outcome 5.3: Manufacture wafer products.

Specific outcome 5.4: Perform end of wafer manufacturing procedures.

6. TITLE: MANUFACTURE CHOCOLATE CRUMB.

Specific outcome 6.1: Demonstrate understanding of chocolate crumb

manufacturing.

Specific outcome 6.2: Prepare to manufacture chocolate crumb.

Specific outcome 6.3: Manufacture chocolate crumb.

Specific outcome 6.4: Perform end of chocolate crumb manufacturing procedures.

SUGAR CONFECTIONERY PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1. TITLE: PRE-BATCH FOOD RAW MATERIALS.

Specific outcome 1.1: Demonstrate an understanding of pre-batching.

Specific outcome 1.2: Prepare for pre-batching of raw materials.

Specific outcome 1.3: Weigh and measure raw materials.

Specific outcome 1.4: Perform end of pre-batching procedures.

2. TITLE: MIX OR BLEND FOOD RAW MATERIALS FOR

PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 2.1: Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 2.2: Prepare for mixing or blending of food raw materials.

Specific outcome 2.3: Mix or blend food raw materials.

Specific outcome 2.4: Perform end of mixing or blending procedures.

3. TITLE: TEMPER SUGAR CONFECTIONERY MASS.

Specific outcome 3.1: Demonstrate an understanding of tempering sugar

confectionery.

Specific outcome 3.2: Prepare to temper sugar confectionery cooked mass.

Specific outcome 3.3: Temper sugar confectionery cooked mass.

Specific outcome 3.4: Perform end of tempering procedures. 4. TITLE: **CUT-AND-WRAP CONFECTIONERY PRODUCTS USING AUTOMATED PRODUCTION EQUIPMENT.** Specific outcome 4.1: Demonstrate an understanding of cutting-and-wrapping of confectionery products. Specific outcome 4.2: Prepare for cutting-and-wrapping of confectionery products. Specific outcome 4.3: Cut-and-wrap confectionery products. Specific outcome 4.4: Perform end of cutting-and-wrapping procedures. 5. TITLE: FORM AND PRESS CONFECTIONERY TABLETS. Specific outcome 5.1: Demonstrate an understanding of the forming and pressing of confectionery tablets. Specific outcome 5.2: Prepare for forming and pressing of confectionery tablets. Specific outcome 5.3: Form and press of confectionery tablets. Specific outcome 5.4: Perform end of tablet, forming and pressing procedures. TITLE: 6. MANUFACTURE FONDANT. Specific outcome 6.1: Demonstrate an understanding of fondant manufacturing. Specific outcome 6.2: Prepare for fondant manufacturing. Specific outcome 6.3: Manufacture a fondant. Specific outcome 6.4: Perform end of fondant manufacturing procedures. UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3 1. TITLE: MANUFACTURE LAYERED CONFECTIONERY PRODUCTS. Specific outcome 1.1: Demonstrate an understanding of layered confectionery manufacturing. Specific outcome 1.2: Prepare for layering confectionery products. Specific outcome 1.3: Manufacture layered confectionery products.

Perform end of layered confectionery procedures.

Specific outcome 1.4:

2. TITLE: MOULD CONFECTIONERY PRODUCTS.

Specific outcome 2.1: Demonstrate an understanding of moulding of confectionery

products.

Specific outcome 2.2: Prepare for moulding.

Specific outcome 2.3: Mould confectionery products.

Specific outcome 2.4: Perform end of moulding procedures.

3. TITLE: MANUFACTURE CONFECTIONERY PRODUCTS USING

A SINGLE SHOT MOULDING PROCESS.

Specific outcome 3.1: Demonstrate an understanding of a single shot moulding

process.

Specific outcome 3.2: Prepare to manufacture confectionery products using the

single shot moulding process.

Specific outcome 3.3: Manufacture confectionery products using the single shot

moulding process.

Specific outcome 3.4: Perform end of single shot moulding procedures.

4. TITLE: COOK CONFECTIONERY MIXTURES USING

CONTINUOUS EQUIPMENT.

Specific outcome 4.1: Demonstrate an understanding of cooking of confectionery

mixtures.

Specific outcome 4.2: Prepare for cooking of confectionery mixtures.

Specific outcome 4.3: Cook a confectionery mixture.

Specific outcome 4.4: Perform end of cooking procedures.

5. TITLE: MONITOR THE TEMPERATURE OF FOOD PRODUCTS

AND THEIR ENVIRONMENT FOR QUALITY CONTROL

PURPOSES.

Specific outcome 5.1: Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 5.2: Prepare for monitoring temperature in the food environment.

Specific outcome 5.3: Monitor the temperature of food products and their

environment.

Specific outcome 5.4: Perform end of temperature monitoring procedures.

6. TITLE:

AERATE A CONFECTIONERY PRODUCT.

Specific outcome 6.1:

Demonstrate an understanding of aerating of confectionery

products.

Specific outcome 6.2:

Prepare for aerating of confectionery products.

Specific outcome 6.3:

Aerate confectionery products.

Specific outcome 6.4:

Perform end of aerating procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE:

DETERMINE THE QUALITY OF FOOD PRODUCTS USING SENSORY EVALUATION.

Specific outcome 1.1:

Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 1.2:

Prepare for the determination of the sensory quality of a food

product.

Specific outcome 1.3:

Determine the sensory quality of a food product.

Specific outcome 1.4:

Report on the sensory quality of a food product.

2. TITLE:

PAN CONFECTIONERY PRODUCTS.

Specific outcome 2.1:

Demonstrate an understanding of panning of confectionery

products.

Specific outcome 2.2:

Prepare to pan confectionery products.

Specific outcome 2.3:

Pan confectionery products.

Specific outcome 2.4:

Perform end of panning procedures.

3. TITLE:

MANUFACTURE STARCH MOULDED CONFECTIONERY PRODUCTS.

Specific outcome 3.1:

Demonstrate an understanding of starch moulding of

confectionery products.

Specific outcome 3.2:

Prepare for starch moulding and depositing of confectionery

mass.

Specific outcome 3.3:

Manufacture starch moulds.

Specific outcome 3.4:

Mould confectionery products.

Specific outcome 3.5:

Perform end of starch moulding procedures.

FISH OR SEAFOOD PROCESSING UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

7. IIILE: PRE	-BATCH FOOD RAW MATERIALS.
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Specific outcome 1.1: Demonstrate an understanding of pre-batching.

Specific outcome 1.2: Prepare for pre-batching of raw materials.

Specific outcome 1.3: Weigh and measure raw materials.

Specific outcome 1.4: Perform end of pre-batching procedures.

2. TITLE: MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 2.1: Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 2.2: Prepare for mixing or blending of food raw materials.

Specific outcome 2.3: Mix or blend food raw materials.

Specific outcome 2.4: Perform end of mixing or blending procedures.

3. TITLE: SORT AND HANDLE RAW SEAFOOD MANUALLY.

Specific outcome 3.1: Demonstrate an understanding of identifying seafood

species and their handling procedures.

Specific outcome 3.2: Prepare to sort and handle raw seafood.

Specific outcome 3.3: Sort and handle raw seafood.

Specific outcome 3.4: Perform end of sorting and handling procedures.

4. TITLE: FLECK AND FILLET FISH MANUALLY.

Specific outcome 4.1: Demonstrate an understanding of the flecking and fillet

cutting process.

Specific outcome 4.2: Prepare to fleck and fillet cut fish manually.

Specific outcome 4.3: Fleck and fillet cut fish manually.

Specific outcome 4.4: Perform end of flecking and fillet cutting procedures.

5. TITLE: TRIM AND PORTION CUT FISH FILLETS MANUALLY.

Specific outcome 5.1: Demonstrate an understanding of the manual trimming and

portioning process for cut fish fillets.

Specific outcome 5.2: Prepare to trim and portion cut fish fillets manually.

Specific outcome 5.3: Trim and portion cut fish fillets manually.

Specific outcome 5.4: Perform end of trimming and portion cutting of fish fillets.

6. TITLE: MINCE FISH OR MEAT USING AUTOMATED MINCING EQUIPMENT.

Specific outcome 6.1: Demonstrate understanding of mincing fish or meat.

Specific outcome 6.2: Prepare for the mincing fish or meat.

Specific outcome 6.3: Mince the fish or meat.

Specific outcome 6.4: Perform end of mincing procedures.

7. TITLE: COAT OR DIP A FOOD PRODUCT USING AUTOMATED EQUIPMENT.

Specific outcome 7.1: Demonstrate an understanding of coating or dipping

procedures for food products.

Specific outcome 7.2: Prepare for coating or dipping of a food product.

Specific outcome 7.3: Coat or dip a food product.

Specific outcome 7.4: Perform end of coating or dipping procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE: STERILISE A FOOD PRODUCT USING RETORTING EQUIPMENT.

Specific outcome 1.1: Demonstrate an understanding of sterilisation using a retort.

Specific outcome 1.2: Prepare a retort for sterilisation.

Specific outcome 1.3: Sterilise a food product in a retort.

Specific outcome 1.4: Perform end of sterilisation procedures.

2. TITLE: FRY FOOD PRODUCTS USING VACUUM OR ATMOSPHERIC FRYING EQUIPMENT.

Specific outcome 2.1: Demonstrate an understanding of the frying principles of

food products.

Specific outcome 2.2: Prepare for frying of food products.

Specific outcome 2.3: Fry food products.

Specific outcome 2.4: Perform end of frying procedures.

3. TITLE: FREEZE OR CHILL A FOOD PRODUCT.

Specific outcome 3.1: Demonstrate an understanding of freezing or chilling of food

products.

Specific outcome 3.2: Prepare for freezing or chilling of a food product.

Specific outcome 3.3: Freeze or chill a food product.

Specific outcome 3.4: Perform end of freezing or chilling procedures.

4. Title: Form or fill raw minced fish or meat products

using automated equipment.

Specific outcome 4.1: Demonstrate an understanding of forming or filling of raw

minced fish or meat products.

Specific outcome 4.2: Prepare for forming or filling of raw minced fish or meat

products.

Specific outcome 4.3: Form or fill raw minced fish or meat products.

Specific outcome 4.4: Perform end of forming or filling of raw minced fish or meat

products procedures.

5. TITLE: MANUFACTURE CURED FISH OR MEAT PRODUCTS.

Specific outcome 5.1: Demonstrate an understanding of the curing process for fish

or meat products.

Specific outcome 5.2: Prepare for curing fish or meat products.

Specific outcome 5.3: Cure fish or meat products.

Specific outcome 5.4: Perform end of fish or meat curing procedures.

6. TITLE: PROCESS AND PACK LIVE SEAFOOD.

Specific outcome 6.1: Demonstrate an understanding of the processing and

packing procedures of life seafood.

Specific outcome 6.2: Prepare to process and pack life seafood.

Specific outcome 6.3: Process and pack life seafood.

Specific outcome 6.4: Perform end of processing and packing procedures.

Salt and dry fish or meat.

Perform end of salting and drying procedures.

Specific outcome 10.3:

Specific outcome 10.4:

11. Title: Monitor the te

Monitor the temperature of food products and their

environment for quality control purposes.

Specific outcome 11.1: Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 11.2: Prepare for monitoring temperature in the food environment.

Specific outcome 11.3: Monitor the temperature of food products and their

environment.

Specific outcome 11.4: Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE:

DEMONSTRATE AN UNDERSTANDING OF THE RELATIONSHIP BETWEEN MICRO-ORGANISMS AND FOOD SPOILAGE.

Specific outcome 1.1:

Demonstrate an understanding of the occurrence of micro-

organisms in a food environment.

Specific outcome 1.2:

Demonstrate an understanding of the effect of food manufacturing processes on microbiological growth.

Specific outcome 1.3:

Demonstrate an understanding of determining the microbiological status in food products or a food

manufacturing environment.

Specific outcome 1.4:

Demonstrate an understanding of microbiological food safety procedures and practices in a food environment.

2. TITLE:

DETERMINE THE QUALITY OF FOOD PRODUCTS

USING SENSORY EVALUATION.

Specific outcome 2.1:

Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 2.2:

Prepare for the determination of the sensory quality of a

food product.

Specific outcome 2.3:

Determine the sensory quality of a food product.

Specific outcome 2.4:

Report on the sensory quality of a food product.

MEAT PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1. TITLE:

PRE-BATCH FOOD RAW MATERIALS.

Specific outcome 1.1:

Demonstrate an understanding of pre-batching.

Specific outcome 1.2:

Prepare for pre-batching of raw materials.

Specific outcome 1.3:

Weigh and measure raw materials.

Specific outcome 1.4:

Perform end of pre-batching procedures.

2. TITLE: MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.

Specific outcome 2.1: Demonstrate an understanding of the role of mixing or

blending in product formulation.

Specific outcome 2.2: Prepare for mixing or blending of food raw materials.

Specific outcome 2.3: Mix or blend food raw materials.

Specific outcome 2.4: Perform end of mixing or blending procedures.

3. TITLE: PREPARE PIG CARCASSES FOR SPLITTING.

Specific outcome 3.1: Demonstrate an understanding of preparing pig carcasses

for splitting.

Specific outcome 3.2: Prepare for pig carcasses preparation procedures.

Specific outcome 3.3: Perform pig carcasses preparation procedures.

Specific outcome 3.4: Perform end of pig carcasses preparation procedures.

4. TITLE: DERIND AND DEBONE VARIOUS PORK CUTS.

Specific outcome 4.1: Demonstrate an understanding of derinding and deboning

various pork cuts.

Specific outcome 4.2: Prepare for derinding and deboning of various pork cuts.

Specific outcome 4.3: Derind and debone various pork cuts.

Specific outcome 4.4: Perform end of derinding and deboning procedures.

5. TITLE: SORT DEBONED PORK CUTS FOR FURTHER PROCESSING.

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Specific outcome 5.1: Demonstrate an understanding of sorting deboned pork cuts

for further processing.

Specific outcome 5.2: Prepare for sorting of deboned pork cuts for further

processing.

Specific outcome 5.3: Sort deboned pork cuts for further processing.

Specific outcome 5.4: Perform end of sorting of deboned pork cuts procedures.

6. TITLE: MINCE FISH OR MEAT USING AUTOMATED MINCING

EQUIPMENT.

Specific outcome 6.1:

Demonstrate understanding of mincing fish or meat.

Specific outcome 6.2:

Prepare for the mincing fish or meat.

Specific outcome 6.3:

Mince the fish or meat.

Specific outcome 6.4:

Perform end of mincing procedures.

7. TITLE:

COAT OR DIP A FOOD PRODUCT USING AUTOMATED

EQUIPMENT.

Specific outcome 7.1:

Demonstrate an understanding of coating or dipping

procedures for food products.

Specific outcome 7.2:

Prepare for coating or dipping of a food product.

Specific outcome 7.3:

Coat or dip a food product.

Specific outcome 7.4:

Perform end of coating or dipping procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE: STERILISE A FOOD PRODUCT USING RETORTING

EQUIPMENT.

Specific outcome 1.1:

Demonstrate an understanding of sterilisation using a retort.

Specific outcome 1.2:

Prepare a retort for sterilisation.

Specific outcome 1.3:

Sterilise a food product in a retort.

Specific outcome 1.4:

Perform end of sterilisation procedures.

2. TITLE: FRY FOOD PRODUCTS USING VACUUM OR ATMOSPHERIC FRYING EQUIPMENT.

Specific outcome 2.1:

Demonstrate an understanding of the frying principles of

food products.

Specific outcome 2.2:

Prepare for frying of food products.

Specific outcome 2.3:

Fry food products.

Specific outcome 2.4:

Perform end of frying procedures.

3.	TITLE:	FREEZE OR CHILL A FOOD PRODUCT.
	Specific outcome 3.1:	Demonstrate an understanding of freezing or chilling of food products.
	Specific outcome 3.2:	Prepare for freezing or chilling of a food product.
	Specific outcome 3.3:	Freeze or chill a food product.
	Specific outcome 3.4:	Perform end of freezing or chilling procedures.
4.	TITLE:.	SPLIT AND CUT PIG CARCASSES INTO PRIMAL CUTS.
	Specific outcome 4.1:	Demonstrate an understanding of the splitting and cutting of pig carcasses into primal cuts.
	Specific outcome 4.2:	Prepare for splitting and cutting of pig carcasses into primal cuts.
	Specific outcome 4.3:	Split and cut pig carcasses into primal cuts.
	Specific outcome 4.4:	Perform end of splitting and cutting procedures.
5.	TITLE:	BREAK BEEF SIDES AND DEBONE PRIMAL BEEF CUTS.
	Specific outcome 5.1:	Demonstrate an understanding of breaking beef sides and deboning primal beef cuts.
	Specific outcome 5.2:	Prepare for breaking of beef sides and deboning of primal beef cuts.
	Specific outcome 5.3:	Break beef sides and debone primal beef cuts.
	Specific outcome 5.4:	Perform end of breaking and deboning procedures.
6.	TITLE:	FORM OR FILL RAW MINCED FISH OR MEAT PRODUCTS USING AUTOMATED EQUIPMENT.
	Specific outcome 6.1:	Demonstrate an understanding of forming or filling of raw minced fish or meat products.
	Specific outcome 6.2:	Prepare for forming or filling of raw minced fish or meat products.
	Specific outcome 6.3:	Form or fill raw minced fish or meat products.
	Specific outcome 6.4:	Perform end of forming or filling of raw minced fish or meat products procedures.

7. TITLE: MANUFACTURE EMULSIFIED MEAT PRODUCTS. Specific outcome 7.1: Demonstrate an understanding of emulsifying meat products. Specific outcome 7.2: Prepare for emulsification of meat products. Specific outcome 7.3: Emulsify and process meat products. Specific outcome 7.4: Perform end of emulsifying and processing procedures. 8. TITLE: MANUFACTURE CURED FISH OR MEAT PRODUCTS. Specific outcome 8.1: Demonstrate an understanding of the curing process for fish or meat products. Specific outcome 8.2: Prepare for curing fish or meat products. Specific outcome 8.3: Cure fish or meat products. Specific outcome 8.4: Perform end of fish or meat curing procedures. 9. TITLE: SMOKE FISH OR MEAT. Specific outcome 9.1: Demonstrate an understanding of smoking procedures for fish or meat products. Specific outcome 9.2: Prepare for smoking of fish or meat products. Specific outcome 9.3: Smoke fish or meat products. Specific outcome 9.4: Perform end of fish or meat smoking procedures. 10. TITLE: SALT AND DRY FISH OR MEAT. Specific outcome 10.1: Demonstrate an understanding of salting and drying of fish or meat. Specific outcome 10.2: Prepare to salt and dry fish or meat. Specific outcome 10.3: Salt and dry fish or meat. Specific outcome 10.4: Perform end of salting and drying procedures. 11. TITLE: MONITOR THE TEMPERATURE OF FOOD PRODUCTS

Specific outcome 11.1: Demonstrate an understanding of temperature monitoring in the food environment.

PURPOSES.

AND THEIR ENVIRONMENT FOR QUALITY CONTROL

Specific outcome 11.2: Prepare for monitoring temperature in the food environment.

Specific outcome 11.3: Monitor the temperature of food products and their

environment.

Specific outcome 11.4: Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE: DEMONSTRATE AN UNDERSTANDING OF THE RELATIONSHIP BETWEEN MICRO-ORGANISMS AND

FOOD SPOILAGE.

Specific outcome 1.1: Demonstrate an understanding of the occurrence of micro-

organisms in a food environment.

Specific outcome 1.2: Demonstrate an understanding of the effect of food

manufacturing processes on microbiological growth.

Specific outcome 1.3: Demonstrate an understanding of determining the

microbiological status in food products or a food

manufacturing environment.

Specific outcome 1.4: Demonstrate an understanding of microbiological food

safety procedures and practices in a food environment.

2. TITLE: DETERMINE THE QUALITY OF FOOD PRODUCTS

USING SENSORY EVALUATION.

Specific outcome 2.1: Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 2.2: Prepare for the determination of the sensory quality of a

food product.

Specific outcome 2.3: Determine the sensory quality of a food product.

Specific outcome 2.4: Report on the sensory quality of a food product.

3. Title: Manufacture fermented meat sausages.

Specific outcome 3.1: Demonstrate an understanding of fermented meat

sausages.

Specific outcome 3.2: Prepare for fermentation of meat sausages.

Specific outcome 3.3: Ferment meat sausages.

Specific outcome 3.4: Perform end of meat fermentation procedures.

FRUIT AND VEGETABLE PROCESSING

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 2

1.	TITLE:	PRE-BATCH FOOD RAW MATERIALS.
	Specific outcome 1.1:	Demonstrate an understanding of pre-batching.
	Specific outcome 1.2:	Prepare for pre-batching of raw materials.
	Specific outcome 1.3:	Weigh and measure raw materials.
	Specific outcome 1.4:	Perform end of pre-batching procedures.
2.	TITLE:	MIX OR BLEND FOOD RAW MATERIALS FOR PROCESSING USING AUTOMATED EQUIPMENT.
	Specific outcome 2.1:	Demonstrate an understanding of the role of mixing or blending in product formulation.
	Specific outcome 2.2:	Prepare for mixing or blending of food raw materials.
	Specific outcome 2.3:	Mix or blend food raw materials.
	Specific outcome 2.4:	Perform end of mixing or blending procedures.
3.	TITLE:	PEEL FRUIT AND VEGETABLES FOR FURTHER PROCESSING.
3.	TITLE: Specific outcome 3.1:	
3.		PROCESSING. Demonstrate an understanding of peeling fruit and
3.	Specific outcome 3.1:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables.
3.	Specific outcome 3.1: Specific outcome 3.2:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables. Prepare for the peeling of fruit and vegetables.
 4. 	Specific outcome 3.1: Specific outcome 3.2: Specific outcome 3.3:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables. Prepare for the peeling of fruit and vegetables. Peel fruit and vegetables.
	Specific outcome 3.1: Specific outcome 3.2: Specific outcome 3.3: Specific outcome 3.4:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables. Prepare for the peeling of fruit and vegetables. Peel fruit and vegetables. Perform end of peeling procedures.
	Specific outcome 3.1: Specific outcome 3.2: Specific outcome 3.3: Specific outcome 3.4: TITLE:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables. Prepare for the peeling of fruit and vegetables. Peel fruit and vegetables. Perform end of peeling procedures. STORE AND ROUTE FOOD RAW MATERIALS. Demonstrate an understanding on storage and routing of
	Specific outcome 3.1: Specific outcome 3.2: Specific outcome 3.3: Specific outcome 3.4: TITLE: Specific outcome 4.1:	PROCESSING. Demonstrate an understanding of peeling fruit and vegetables. Prepare for the peeling of fruit and vegetables. Peel fruit and vegetables. Perform end of peeling procedures. STORE AND ROUTE FOOD RAW MATERIALS. Demonstrate an understanding on storage and routing of food raw materials.

5. TITLE:

COAT OR DIP A FOOD PRODUCT USING AUTOMATED

EQUIPMENT.

Specific outcome 5.1:

Demonstrate an understanding of coating or dipping

procedures for food products.

Specific outcome 5.2:

Prepare for coating or dipping of a food product.

Specific outcome 5.3:

Coat or dip a food product.

Specific outcome 5.4:

Perform end of coating or dipping procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 3

1. TITLE:

RECEIVE FOOD RAW MATERIALS.

Specific outcome 1.1:

Demonstrate an understanding of receiving food raw

materials.

Specific outcome 1.2:

Prepare for food raw materials receiving.

Specific outcome 1.3:

Receive food raw materials.

Specific outcome 1.4:

Perform end of receiving procedures.

2. TITLE:

FUMIGATE FOOD RAW MATERIALS BEFORE FURTHER PROCESSING.

Specific outcome 2.1:

Demonstrate an understanding of fumigation of food raw

materials for further processing.

Specific outcome 2.2:

Prepare for fumigation of food raw materials for further

processing.

Specific outcome 2.3:

Fumigate food raw materials for further processing.

Specific outcome 2.4:

Perform end of fumigation procedures.

3. TITLE:

GRADE AND SORT FOOD RAW MATERIALS.

Specific outcome 3.1:

Demonstrate an understanding of grading and sorting of

food raw materials.

Specific outcome 3.2:

Prepare for grading and sorting of food raw materials.

Specific outcome 3.3:

Grade and sort food raw materials.

Specific outcome 3.4:

Perform end of grading and sorting procedures.

4. TITLE:

SHAPE FRUIT AND VEGETABLES FOR FURTHER PROCESSING.

Specific outcome 4.1:

Demonstrate an understanding of shaping fruit and

vegetables.

Specific outcome 4.2:

Prepare for the shaping of fruit and vegetables.

Specific outcome 4.3:

Shape fruit and vegetables.

Specific outcome 4.4:

Perform end of shaping procedures.

5. TITLE:

PROCESS PREPARED FRUIT AND VEGETABLES.

Specific outcome 5.1:

Demonstrate an understanding of processing prepared fruit

and vegetables.

Specific outcome 5.2:

Prepare for the processing of prepared fruit and vegetables.

Specific outcome 5.3:

Process prepared fruit and vegetables.

Specific outcome 5.4:

Perform end of processing procedures.

6. TITLE:

STERILISE A FOOD PRODUCT USING RETORTING EQUIPMENT.

Specific outcome 6.1:

Demonstrate an understanding of sterilisation using a retort.

Specific outcome 6.2:

Prepare a retort for sterilisation.

Specific outcome 6.3:

Sterilise a food product in a retort.

Specific outcome 6.4:

Perform end of sterilisation procedures.

7. TITLE:

FRY FOOD PRODUCTS USING VACUUM OR ATMOSPHERIC FRYING EQUIPMENT.

Specific outcome 7.1:

Demonstrate an understanding of the frying principles of

food products.

Specific outcome 7.2:

Prepare for frying of food products.

Specific outcome 7.3:

Fry food products.

Specific outcome 7.4:

Perform end of frying procedures.

8. TITLE:

FREEZE OR CHILL FOOD PRODUCTS.

Specific outcome 8.1:

Demonstrate an understanding of freezing or chilling of food

products.

Specific outcome 8.2: Prepare for freezing or chilling of food products.

Specific outcome 8.3: Freeze or chill food products.

Specific outcome 8.4: Perform end of freezing or chilling procedures.

9. TITLE: PASTEURISE A FOOD PRODUCT BY MEANS OF A

BATCH PASTEURISER.

Specific outcome 9.1: Demonstrate an understanding of batch pasteurisation of

food product.

Specific outcome 9.2: Prepare to pasteurise a food product.

Specific outcome 9.3: Pasteurise a food product in a batch pasteuriser.

Specific outcome 9.4: Perform end of pasteurisation procedures.

10. TITLE: EVAPORATE A FOOD PRODUCT BY MEANS OF AN ATMOSPHERIC OR VACUUM TYPE EVAPORATOR.

Specific outcome 10.1: Demonstrate an understanding of evaporation of food

products.

Specific outcome 10.2: Prepare for evaporation of a food product.

Specific outcome 10.3: Evaporate a food product.

Specific outcome 10.4: Perform end of evaporation procedures.

11. TITLE: DEHYDRATE FOOD PRODUCTS.

Specific outcome 11.1: Demonstrate an understanding of dehydration of food

products.

Specific outcome 11.2: Prepare for dehydrating of food products.

Specific outcome 11.3: Dehydrate food products.

Specific outcome 11.4: Perform end of dehydration procedures.

12. TITLE: MONITOR THE TEMPERATURE OF FOOD PRODUCTS

AND THEIR ENVIRONMENT FOR QUALITY CONTROL

PURPOSES.

Specific outcome 12.1: Demonstrate an understanding of temperature monitoring in

the food environment.

Specific outcome 12.2: Prepare for monitoring temperature in the food environment.

Specific outcome 12.3: Monitor the temperature of food products and their

environment.

Specific outcome 12.4: Perform end of temperature monitoring procedures.

UNIT STANDARDS AND SPECIFIC OUTCOMES NQF LEVEL 4

1. TITLE: DEMONSTRATE AN UNDERSTANDING OF THE RELATIONSHIP BETWEEN MICRO-ORGANISMS AND

FOOD SPOILAGE.

Specific outcome 1.1: Demonstrate an understanding of the occurrence of micro-

organisms in a food environment.

Specific outcome 1.2: Demonstrate an understanding of the effect of food

manufacturing processes on microbiological growth.

Specific outcome 1.3: Demonstrate an understanding of determining the

microbiological status in food products or a food

manufacturing environment.

Specific outcome 1.4: Demonstrate an understanding of microbiological food

safety procedures and practices in a food environment.

2. TITLE: DETERMINE THE QUALITY OF FOOD PRODUCTS

USING SENSORY EVALUATION.

Specific outcome 2.1: Demonstrate an understanding of the sensory quality of a

food product.

Specific outcome 2.2: Prepare for the determination of the sensory quality of a

food product.

Specific outcome 2.3: Determine the sensory quality of a food product.

Specific outcome 2.4: Report on the sensory quality of a food product.