

## 2562/2563 New Zealand Apprenticeship v1 in Dairy Product Process (Level 4)

<b>Name</b>		<b>Company</b>	
<b>Employee Number</b>		<b>Site</b>	
<b>Enrolment Date</b>		<b>Programme Duration</b>	30 months

### Qualification Requirements

You will be awarded these qualifications with your selected Product Process strand once you have gained 160-165 credits. 145 credits come from the Compulsory section and the remaining 15 - 20 credits from the chosen Strand.

### Compulsory

The following unit standards are required.

Unit No.	Unit Title	Level	Credit	Selected
<b>Core – Level 3</b>				
28644	Apply safe work practices in own work area in a primary products food processing operation	3	3	3
28624	Apply sustainable environmental practices in a primary products food processing operation	3	2	2
28630	Apply hygiene and food safety requirements to own work area in a primary products food processing operation	3	5	5
28619	Apply quality assurance practices to own work area in a primary products food processing operation	3	5	5
28650	Work in a team to achieve designated tasks in a primary products food processing operation	3	3	3
28931	Interact with internal customers in a primary products food processing operation	3	2	2
<b>Core – Level 4</b>				
28645	Monitor the implementation of health and safety practices in a primary products food processing operation	4	5	5
28625	Monitor sustainable environmental practices in a primary products food processing operation	4	5	5
28631	Implement food safety requirements in a primary products food processing operation	4	5	5
28620	Monitor the operation of a quality system in a primary products food processing operation	4	5	5
28652	Implement work priorities in a primary products food processing operation	4	10	10
28653	Analyse and convey workplace information in a primary products food processing operation	4	5	5
<b>Process – Level 3</b>				
28633	Demonstrate knowledge of cleaning and sanitation in a primary food processing operation	3	5	5
28634	Clean and sanitise work areas, machinery and equipment in a primary food processing operation	3	2	2
28621	Comply with documentation requirements in a primary food processing operation	3	3	3

19977	Comply with aseptic sampling techniques in a dairy processing operation	3	5	5
16302	Demonstrate knowledge of the prevention and control of foreign matter contamination of dairy products	3	5	5
28981	Demonstrate knowledge of the risks, testing and control of microorganisms in a dairy processing operation	3	5	5
4826	Demonstrate knowledge of the composition of milk and the chemical and physical changes during dairy product processing	3	5	5
<b>Process – Level 4</b>				
20012	Operate pumping equipment in a dairy processing operation	4	5	5
21136	Operate a process control interface in a dairy processing operation	4	5	5
20002	Carry out a dairy product holding and storage process	4	5	5
28949	Identify and contribute to continuous improvement in a dairy processing operation.	4	10	10
<b>Automated Cleaning and Heat Treatment – Level 3</b>				
4829	Demonstrate knowledge of heat transfer and heat treatment in a dairy processing operation	3	5	5
19984	Conduct a titration of a clean-in-place solution in a dairy processing operation	3	5	5
28639	Demonstrate knowledge of clean-in-place processes in a primary food processing operation	3	5	5
<b>Automated Cleaning and Heat Treatment Operations – Level 4</b>				
20005	Operate a heat treatment process in a dairy processing operation	4	5	5
28632	Carry out automated clean-in-place (CIP) processes in a primary products food processing operation	4	5	5
28661	Demonstrate knowledge of an automated clean-in-place (CIP) process in a primary products food processing operation	4	10	10
		<b>Total</b>	<b>145</b>	<b>145</b>

## Cheese Making Strand

Choose one of the Contexts below.

### Natural Cheese Making – including starter Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4833	Demonstrate knowledge of cheese making	3	5	
<b>Product or Process Operations – Level 4</b>				
20000	Carry out a cheese and lactic casein fermentation process in a dairy processing operation	4	5	
28603	Carry out cheese processing operations	4	10	
			<b>Cheese Making Context Total</b>	

### Natural Cheese Making excluding starter Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4833	Demonstrate knowledge of cheese making	3	5	
<b>Product or Process Operations – Level 4</b>				
28603	Carry out cheese processing operations	4	10	
			<b>Cheese Making Context Total</b>	

## Processed Cheese Manufacture Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4306	Demonstrate knowledge of processed cheese manufacturing	3	5	
<b>Product or Process Operations – Level 4</b>				
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
23834	Operate a processed cheese making plant	4	5	
<b>Processed Cheese Context Total</b>				

## Cream Products Strand

Choose one of the Contexts below.

### Fritz -Buttermaking Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4830	Demonstrate knowledge of cream products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19995	Carry out a buttermaking process in a dairy processing operation	4	5	
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
<b>Fritz - Buttermaking Context Total</b>				

### AMMIX -Buttermaking Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4830	Demonstrate knowledge of cream products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19995	Carry out a buttermaking process in a dairy processing operation	4	5	
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
<b>AMMIX - Buttermaking Context Total</b>				

### Fractionation Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4830	Demonstrate knowledge of cream products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
21124	Operate a milkfat fractionation process in a dairy processing operation	4	5	
<b>Fractionation Context Total</b>				

### Anhydrous Milkfat (AMF) Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4830	Demonstrate knowledge of cream products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19996	Carry out a centrifugal separation process to separate milk components	4	5	
21123	Operate an Anhydrous Milkfat (AMF) process in a dairy processing operation	4	5	
<b>AMF Context Total</b>				

### Ice Cream Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4307	Demonstrate knowledge of the manufacture of frozen milk products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
20007	Carry out an ice cream or related product batch or continuous freezing process in a dairy processing operation	4	5	
<b>Ice Cream Context Total</b>				

### Milk Powder Strand

Choose one of the Contexts below.

#### Evaporation Operation Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4831	Demonstrate knowledge of evaporation and spray drying of dairy products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
16311	Demonstrate knowledge of the prevention of fires and dust explosions in a dairy processing operation	4	5	
20004	Carry out evaporation process in a dairy processing operation	4	5	
<b>Evaporation Context Total</b>				

#### Drying Operations Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4831	Demonstrate knowledge of evaporation and spray drying of dairy products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
16311	Demonstrate knowledge of the prevention of fires and dust explosions in a dairy processing operation	4	5	
20003	Carry out a drying process in a dairy processing operation	4	5	
<b>Drying Context Total</b>				

### Evaporation & Spray drying Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4831	Demonstrate knowledge of evaporation and spray drying of dairy products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
16311	Demonstrate knowledge of the prevention of fires and dust explosions in a dairy processing operation	4	5	
20003	Carry out a drying process in a dairy processing operation	4	5	
20004	Carry out evaporation process in a dairy processing operation	4	5	
			<b>Evap &amp; Spray Drying Context Total</b>	

### Dry Powder Blending Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4831	Demonstrate knowledge of evaporation and spray drying of dairy products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
16311	Demonstrate knowledge of the prevention of fires and dust explosions in a dairy processing operation	4	5	
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
			<b>Dry Powder Context Total</b>	

## Milk Protein Strand

Choose one of the Contexts below.

### Casein - Dry Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4832	Demonstrate knowledge of milk protein products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
20003	Carry out a drying process in a dairy processing operation	4	5	
20009	Carry out a mixing and/or blending process in a dairy processing operation	4	5	
<b>Casein – Dry Context Total</b>				

### Casein – Wet Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4832	Demonstrate knowledge of milk protein products processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19996	Carry out a centrifugal separation process to separate milk components	4	5	
28609	Carry out a wet-side casein process in a dairy processing operation	4	5	
<b>Casein – Wet Context Total</b>				

### Whey Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
28610	Demonstrate knowledge of membrane separation processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19996	Carry out a centrifugal separation process to separate milk components	4	5	
20008	Carry out a membrane separation process to separate milk components	4	5	
<b>Whey Context Total</b>				

### Ethanol Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
28605	Demonstrate knowledge of ethanol processing in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19996	Carry out a centrifugal separation process to separate milk components	4	5	
28604	Operate an ethanol process in a dairy processing operation	4	5	
<b>Ethanol Context Total</b>				

## Milk Treatment Strand

Choose 1 of the Contexts below.

### Milk Treatment Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
28608	Demonstrate knowledge of a milk treatment process in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
19996	Carry out a centrifugal separation process to separate milk components	4	5	
21121	Carry out a bulk liquid transfer process for a dairy processing operation	4	5	
			<b>Milk Treatment Context Total</b>	

### Consumer Dairy Products - UHT Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4304	Demonstrate knowledge of the manufacture of ultra-heat treated products in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
20001	Carry out a dairy product filling process in a dairy processing operation	4	5	
28927	Carry out a ultra-heat treated (UHT) process in a dairy processing operation	4	5	
			<b>Consumer Dairy Products – UHT Context Total</b>	

### Consumer Dairy Products – Cultured Foods Context

Unit No.	Unit Title	Level	Credit	Selected
<b>Product or Process Knowledge – Level 3</b>				
4305	Demonstrate knowledge of the manufacture of cultured dairy products and dairy desserts in a dairy processing operation	3	5	
<b>Product or Process Operations – Level 4</b>				
20001	Carry out a dairy product filling process in a dairy processing operation	4	5	
28929	Carry out a cultured dairy products and dairy desserts process in a dairy processing operation	4	5	
			<b>Consumer Dairy Products – Cultured Foods Context Total</b>	

Credit Summary			Selected
		Total credits from Compulsory	145
		Total credits from selected Product Process Strand	
		<b>Total Qualification Credits</b>	<b>160-165</b>