APPLY DAIRY CHEMISTRY PRINCIPLES

ISCED UNIT CODE: 0721 551 09A

TVET CDACC UNIT CODE: DA/OS/PM/CC/02/5/MA

Unit Description

This unit specifies the competencies required by a Dairy Plant Technician level 6 to Apply Dairy Chemistry Principles. It involves applying physical properties, applying chemical properties and applying functional properties

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace functions	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements ***(Bold and italicized terms are elaborated in the range)***
1. Apply physical properties	1.1 Physical properties of milk are applied in milk composition in accordance work requirements 1.2 Physical properties of milk are applied in milk quality control in accordance work requirements 1.3 Physical properties of milk are applied in ***processing operations*** in accordance work requirements
2. Apply chemical properties	2.1 Chemical properties of milk are applied in milk composition in accordance work requirements 2.2 Chemical properties of milk are applied in milk quality control in accordance work requirements 2.3 Chemical properties of milk are applied in processing operations in accordance work requirements 2.4 Chemical properties of milk are applied in product development in accordance work requirements
3. Apply functional properties	3.1 Functional properties of milk are applied sensory attributes enhancement in accordance to work requirements 3.2 Functional properties of milk are applied in nutritional quality improvement in accordance to work requirements. 3.3 Functional properties of milk are applied in product formulation in accordance to work requirements 3.4 Functional properties of milk are applied in product shelf stability in accordance to work requirements

REQUIRED KNOWLEDGE AND SKILLS

This section describes the knowledge and skills required for this unit of competency.

Required knowledge

The individual needs to demonstrate knowledge of:

1. Physical properties of milk
2. Milk composition
3. Process induced changes

Required skills

The individual needs to demonstrate the following skills:

- Communication skills
- Problem solving
- Analytical skills
- Observation of laboratory safety

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills range.

1 Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Applied physical properties of milk in milk quality control in accordance work requirements 1.2 Applied chemical properties of milk in milk quality control in accordance work requirements 1.3 Applied functional properties of milk in nutritional quality improvement in accordance to work requirements.
2. Resource implications	The following resources should be provided: 2.1 Appropriately simulated environment where assessment can take place 2.2 Access to relevant work environment 2.3 Resources relevant to the proposed activities or tasks

3. Methods of assessment	Competency in this unit may be assessed through: 3.1 Practical assessment 3.2 Oral questioning 3.3 Portfolio of evidence 3.4 Interviews 3.5 Third party report 3.6 Written tests
4. Context of assessment	Competency may be assessed: 2.1 Workplace 2.2 Simulated work environment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.