

Title	Demonstrate knowledge of science and technology for the production of pastry products using manual methods		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to demonstrate knowledge of: pastry making science; processes used to make short pastry, puff pastry, yeast raised laminated pastry and choux pastry; common pastry faults; and bakery equipment and layout for pastry production using manual methods.
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Classification	Food and Related Products Processing > Baking - Pastry
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Available grade	Achieved
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Guidance Information

1 Definitions

Characteristics refer to appearance, texture, colour, and shape.

Workplace procedures refer to policies and procedures used by the organisation carrying out the work and applicable to the tasks being carried out, such as recipes, production specifications, standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, and procedures to comply with legislative and local body requirements.

2 Range

Pastry includes – puff pastry, short pastry, choux pastry, yeast raised laminated pastry.

3 Assessment information

Evidence generated during assessment against this unit standard must meet applicable workplace procedures and commercial bakery requirements and be consistent with industry practice. Such knowledge is available in relevant training manuals, reference texts, models, and other information-bearing media. No one textbook or other source of information is envisaged, as new approaches to commercial baking and baking products are published regularly.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of pastry making science.

Performance criteria

- 1.1 Primary ingredients are described in terms of their function and use in pastry making.

Range flour, fats, salt, water, eggs, sugar.

- 1.2 The purpose of aeration in pastry making is explained.

- 1.3 The role of starch in pastry making is explained.

Range gelatinisation and retrogradation.

- 1.4 Ingredients are evaluated in terms of their role in achieving recipe balance.

Range flour, fats, salt, water, eggs, sugar, raising agents.

Outcome 2

Demonstrate knowledge of short pastry making processes.

Range short, sweet, wholemeal.

Performance criteria

- 2.1 Short pastry is defined in terms of its characteristics and use in pastry products.

- 2.2 The recipe balance and uses of different types of short pastries are explained.

- 2.3 The addition of ingredients and mixing speeds for short pastry production methods are compared.

Range rubbing in method, creaming method.

- 2.4 The methods of aeration for short pastry are described.

- 2.5 Factors which determine the quality of short pastry are identified and described.

Range texture, volume, shape, degree of shortness, mouth feel.

Outcome 3

Demonstrate knowledge of puff pastry making processes.

Performance criteria

- 3.1 Puff pastry is defined in terms of its characteristics and use in pastry products.

- 3.2 Puff pastry making methods are described.

Range Scotch, French, English.

- 3.3 The method of aeration for puff pastry is described.
- 3.4 Laminating methods are compared in terms of the number of folds and turns.
- Range half-turn, book fold.
- 3.5 Factors which determine the quality of puff pastry are identified and described.
- Range texture, volume, shape, flakiness, lift, mouth feel.

Outcome 4

Demonstrate knowledge of yeast raised laminated pastry making processes.

Performance criteria

- 4.1 The recipe balance, internal structure, and texture of yeast-raised laminated pastries are explained.
- Range croissants, Danish pastry.
- 4.2 The methods of aeration for yeast raised laminated pastry are described.
- 4.3 Steps in yeast raised laminated pastry making are identified and explained in accordance with the technique used.
- Range preparation and weighing of ingredients, mixing, laminating, resting, cutting and shaping, baking.
- 4.4 Factors which determine the quality of yeast raised laminated pastry are identified and described.
- Range texture, volume, shape, flakiness, lift, mouth feel.

Outcome 5

Demonstrate knowledge of choux pastry making processes.

Performance criteria

- 5.1 Choux pastry is defined and described in terms of its characteristics and products.
- 5.2 The method of aeration for choux pastry is described.
- 5.3 Steps in choux pastry making are identified and explained in accordance with the technique used.
- Range preparation and weighing of ingredients, temperature control, ingredient addition, piping, baking.

- 5.4 Factors which determine the quality of choux pastries are identified and described.

Range texture, volume, shape, lift, mouth feel.

Outcome 6

Demonstrate knowledge of common pastry faults.

Range crumbling, uneven lift, poor lift, shrinkage.

Performance criteria

- 6.1 Common faults are identified and explained in terms of visible signs and possible causes.

Range causes may include but are not limited to – recipe imbalance, equipment, processes.

- 6.2 The procedures to correct common faults are described.

Outcome 7

Demonstrate knowledge of bakery equipment and layout for pastry production using manual methods.

Performance criteria

- 7.1 Equipment used is identified and described in terms of its use in the range of products produced.

- 7.2 Workflow patterns are described in terms of production tasks and production requirements.

- 7.3 Optimum bakery layout is described in terms of safety, and efficiency in meeting production schedules.

Planned review date	31 December 2030
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 March 2016	31 December 2027
Review	2	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.