|  |  |
| --- | --- |
| **Emerg Lvl 5** | **Emulsification technical skills and theory** |

**Emulsification**

|  |  |
| --- | --- |
| **Kaupae |** Level | 5 |
| **Whiwhinga |** Credit | 10 |
| **Whāinga |** Purpose | To provide ākonga with the ability to apply technical knowledge and theory of emulsification to preparing food items under observation in a culinary context. |

**Hua o te ako me Paearu aromatawai |** Learning outcomes and assessment criteria

| **Hua o te ako |** Learning outcomes | **Paearu aromatawai |** Assessment criteria |
| --- | --- |
| 1. Select and apply technical knowledge and theory of emulsification to prepare and modify food products | 1. Produce food products with sensory balance by applying technical knowledge to control the method of emulsification. |
| 1. Apply theory explaining and supporting the effect of emulsification to create a balanced sensory experience. |

**Pārongo aromatawai me te taumata paearu |** Assessment information and grade criteria

*Assessment specifications:*

Performance of all assessment activities must comply with Health and Safety at Work and Food Safety requirements, while maintaining food quality.

The assessment of this skill standard should be conducted in a real or simulated workplace setting.

Assessment should be based on the learner's ability to apply technical knowledge and theory to produce food products using emulsification methods. The assessment should include observation, questioning, and review of physical evidence developed during the process.

Evidence is required of hot and cold emulsification.

Suggested scenarios for assessment may include but are not limited to:

* In a gastro pub apply understanding of hot emulsification technical knowledge and theory to produce a bearnaise sauce to accompany an aged Angus beef filet served with pommes frites.
* In a Japanese noodle house apply understanding of cold emulsification technical knowledge and theory to produce miso and ginger vinaigrette to accompany an Asian slaw.
* In a Kṛṣṇa restaurant apply understanding of cold emulsification technical knowledge and theory to produce a vegan mayonnaise using aquafaba.

Assessment methods may include:

* Observation of practical skills in preparing and producing food products using emulsification methods.
* Verbal questioning to assess knowledge and understanding of emulsification, as well as food safety and hygiene principles.
* Peer and self-assessment to promote reflection and self-improvement.
* Portfolio assessment to demonstrate evidence of learning, such as recipes, photographs, and reflections on the learning process.

***Ngā momo whiwhinga |*** *Grades available*

Achieved

**Ihirangi waitohu |** Indicative content

The learning outcomes of this skills are established with the kaupapa of engaging with technical knowledge and theory to progress development of professional practice.

The principles of kaitiakitanga, manaakitanga, whanaungatanga and kotahitanga are under the rangatiratanga of mana whenua and must underpin all learning in this skill standard.

Learning may cover but is not limited to the following content:

* Applying the theory of temperature and medium control (a deep understanding of the methods of cookery and what is happening in emulsification methods from a food science perspective) to transform ingredients into dishes.
* Applying the theory of sensory analysis to allow for the development of sensory balanced food items.
* Applying the theory of nutrition and dietary restrictions for the development of safe to eat dishes.
* Different types of emulsions, including oil-in-water, water-in-oil, and multiple emulsions.
* Properties of emulsions, such as viscosity, colour, and flavour, and how they can be manipulated through the selection of ingredients and techniques.
* Applying technical knowledge and theory to the preparation of a range of emulsified food items, such as sauces, dressings, mayonnaise, and ice cream.
* Using a variety of emulsifiers and techniques to create stable emulsions to meet sensory expectations.

**Rauemi |** Resources

Legislation relevant to this skill standard may include but is not limited to:

* + Food Act 2014.
  + Health and Safety in Employment Act 2015.

Applicable procedures found in the following:

* + establishment performance guidelines and standards.
  + equipment manufacturer’s procedures and specifications.
  + Government and local body legislation.

Definitions

* Sensory expectations refer to the anticipated experiences and perceptions that individuals have about the sensory aspects of food. These expectations involve the senses of sight, smell, taste, touch, and even hearing.
* Technical knowledge in this context covers the practice of controlling the development of emulsification and its implications for sensory balance.
* Theory in this context means an ability to explain the effect of different emulsification methods to create a balanced sensory experience.

**Pārongo Whakaū Kounga |** Quality assurance information

|  |  |
| --- | --- |
| **Ngā rōpū whakatau-paerewa |** Standard Setting Body | Ringa Hora Services Workforce Development Council |
| **Whakaritenga Rārangi Paetae Aromatawai |** DASS classification | Service Sector > Hospitality > Cookery |
| **Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga |** CMR | 0112 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Hātepe |** Process | **Putanga |** Version | **Rā whakaputa |** ReviewDate | **Rā whakamutunga mō te aromatawai |** Last date for assessment |
| **Rēhitatanga |** Registration | 1 | [dd mm yyyy] | [dd mm yyyy] |
| **Arotakenga |** Review | <type here> | [dd mm yyyy] | [dd mm yyyy] |
| **Kōrero whakakapinga |** Replacement information | N/A | | |
| **Rā arotake |** Planned review date | [dd mm yyyy] | | |

Please contact Ringa Hora Services Workforce Development Council [qualifications@ringahora.nz](mailto:qualifications@ringahora.nz) to suggest changes to the content of this skill standard.