



**Companion Volume
User Guide:
Artisanal Food and Beverages**

**FBP Food, Beverage and
Pharmaceutical Training Package**

Version 3.0

October 2019

Contents

User Guide: Artisanal food and beverage history	3
Introduction	4
About Artisanal Food and Beverages	5
The qualifications	5
Skill sets	13
Elective choices.....	13
Units of competency and assessment requirements.....	15
Delivery of artisanal food and beverage units of competency	17
Assessment of artisanal food and beverage units of competency	19
Legislative and regulatory requirements.....	20
Useful links.....	20
Frequently asked questions	21

User Guide: Artisanal food and beverage history

Release number	Release date	Author	Comments
1.0	October	Skills Impact	User Guide created to accompany <i>FBP Food, Beverage and Pharmaceutical Training Package</i> Version 3.0

Acknowledgements

Skills Impact wishes to thank the organisations and individuals who contributed advice and feedback throughout this project and for this User Guide.

Introduction

About this Guide

This Companion Volume *User Guide: Artisanal Food and Beverages* supports the delivery and assessment of two artisanal food qualifications from the *FBP Food, Beverage and Pharmaceutical Training Package*, version 3.0:

- *FBP40619 Certificate IV in Artisan Fermented Products*
- *FBP50319 Diploma of Artisan Cheesemaking*.

It includes information about:

- interpreting the units of competency
- key terminology
- delivery and assessment advice
- links to key legislative/regulatory information.

This *User Guide* is an optional companion volume developed by Skills Impact to support good practice implementation of the Artisanal Food and Beverage units, skill sets and qualifications. It is not endorsed in the same way as units of competency and qualifications, and as such, it can be updated at any time. In time, it will provide an opportunity to showcase best practice from RTOs and provide a forum for sharing information and resources. If you have any ideas, resources, case studies or feedback to contribute to this guide, please provide your feedback via the Skills Impact Continuous Improvement Feedback Register.

This *User Guide* should be read in conjunction with the *Companion Volume Implementation Guide* for the *FBP Food, Beverage and Pharmaceutical Training Package* version 3.0. The Implementation Guide is a mandatory requirement for Skills Service Organisations to develop.

It is available at vetnet.education.gov.au/Pages/TrainingPackages.aspx and includes overview information about the entire Training Package, including a list of all units of competency, skill sets and qualifications.

It also includes key implementation advice for use by RTOs, including:

- unit and qualification coding
- mapping between previous and current versions of the qualifications and units of competency
- key work, training and regulatory/licensing requirements in the industry
- legislation requirements for all animal care sectors
- resources and equipment requirements
- access and equity considerations
- training pathways
- occupational outcomes of qualifications
- entry requirements for qualifications.

Training Package developer's quality assurance process for Companion Volumes

Companion Volumes are developed in consultation with industry representatives, trainers and assessors, and representatives of Industry Reference Committees (IRCs) and Subject matter Experts (SMEs). These key stakeholder representatives provide and review content to ensure that information is relevant and useful.

The Companion Volumes undergo continuous improvement in response to feedback lodged on the Skills Impact website (<http://www.skillsimpact.com.au/contact/>).

About Artisanal Food and Beverages

The impetus for the Artisanal Food and Beverage qualifications came from a recognition of many new business start-ups in this sector. Artisanal cheeses, beers, spirits and fermented foods and beverages are growing in popularity, and small entrepreneurial businesses are flourishing and employing staff. Small breweries, cideries, distilleries, food processors and farmhouse cheeseries across Australia have experienced substantial growth in production and continued growth in employee numbers is expected. The numbers of new independent enterprises and the trend to partner with larger producers will enable further growth and market penetration.

Skills Impact began the project to develop training package components to cover this need in 2018.

What is 'artisanal'?

One of the early challenges in the project was to define the term 'artisanal' in order to identify a 'point of difference' to set this project aside from the skills and knowledge used by workers in large food manufacturing companies. The following definition helped distinguish the newly developed units of competency and qualifications from existing components in the *FBP Food, Beverage and Pharmaceutical Training Package* which focuses on mass-produced food processing methods:

Artisanal food and beverage products are premium, high-value hand-crafted products produced in a small-scale food or beverage environment, where the provenance of the product is known, and where the process is controlled, monitored and changed as required by the maker.

Stakeholders should bear in mind that the 'artisanal' qualifications sit in the *FBP Food, Beverage and Pharmaceutical Training Package* version 3.0, alongside several other qualifications that focus directly on the 'Food Processing' and 'Food Science and Technology'.

'Food' versus 'food and beverages' language

During the work carried out to develop components for this project, the team proposed changing the language in some existing units of competency so that 'food' became 'food and beverages', including in some existing unit titles. Industry stakeholders pointed out that the FSANZ Food Standards Code covers both food and beverages (a 'beverage' is a 'food'), so users are encouraged to use that 'definition' for existing units. This means that title changes to existing units were not required.

Users should note that references to 'food' in new and existing training package components, cover 'beverages' as well.

The qualifications

Both the *FBP40619 Certificate IV in Artisan Fermented Products* and the *FBP50319 Diploma of Artisan Cheesemaking* have been designed to meet the needs of this growing artisanal food and beverage market and to ensure food quality and safety in this space.

Certificate IV in Artisan Fermented Products

The *FBP40619 Certificate IV in Artisan Fermented Products* was developed to meet the current job outcomes of those using artisanal methods to produce fermented food and/or beverage products, such as beer, spirits, miso, table olives and fermented meat products, as well as achieving accurate alignment with Australian Qualifications Framework (AQF) level 4. The processes used to develop the qualification involved extensive consultation with industry stakeholders, as well as input from wider VET stakeholders before final approval by the Food, Beverage and Pharmaceutical IRC.

The AQF provides a comprehensive, nationally consistent framework for qualifications in post-compulsory education and training in Australia. The framework helps to provide consistency in the vocational education and training sector for all learners, employers and providers by enabling recognition of qualifications and Statements of Attainment. The framework enables learners to have flexible pathways than can cover more than one provider, pathways that are horizontal (across AQF qualifications at the same level) and vertical

(between qualifications at different levels) and eliminates unnecessary and unfair barriers to AQF qualifications.

The *FBP40619 Certificate IV in Artisan Fermented Products* is also consistent with the purpose of the AQF Qualifications Pathways Policy in that:

- There are no entrance requirements.
- There is a natural progression from a number of skills sets also included in this project, including: *FBPSS00039 Prepare to Set up an Artisan Food or Beverage Production Business Skill Set*, *FBPSS00042 Artisan Brewer Skill Set*, *FBPSS00043 Artisan Food and Beverage Fermenter Skill Set*, *FBPSS00044 Artisan Olive Producer Skill Set*, *FBPSS00045 Artisan Distiller Skill Set*, *FBPSS00046 Present Artisan Food and Beverages Skill Set*, *FBPSS00047 Establish an Artisan Food or Beverage Business Skill Set*.
- Assessment leading to an AQF qualification or Statement of Attainment may follow a learning and assessment pathway, or a recognition pathway, or a combination of the two.

Graduates of the *FBP40619 Certificate IV in Artisan Fermented Products* may progress to either the *FBP50118 Diploma of Food Science and Technology*, *FBP50319 Diploma of Artisan Cheesemaking* or higher education qualifications.

This qualification offers specialisations in:

- Brewing
- Distilling
- Food and non-alcoholic beverages.

Individuals with this qualification apply a broad range of specialised skills and knowledge in varied contexts that involve selecting and operating equipment, coordinating resources and finding solutions to routine and non-routine problems as they arise. They may also have limited responsibility for the organisation of others.

Job roles typically covered by this qualification include:

- Lead brewer
- Lead distiller
- Fermented food/beverage producer.

All units of competency in this qualification include technical and theoretical knowledge evidence requirements relevant for work in artisanal food or beverage food processing, and the core units require contextual knowledge of:

- legal requirements of food production, including labelling requirements
- sensory analysis
- food safety and quality principles
- food contamination and spoilage
- raw materials management
- basic tests, interpreting and responding to the results of those tests
- work, health and safety.

The volume of learning of a Certificate IV is typically 0.5 to 2 years and this duration has been confirmed by the IRC as appropriate for the *FBP40619 Certificate IV in Artisan Fermented Products*. There may be variations between short learning duration specialist qualifications that build on knowledge and skills already acquired and longer duration qualifications that are designed as entry level requirements for work.

New units

Several new units were created to address job tasks in the artisanal food and beverage production space. Many of the new units cover the role of managing, or overseeing, a job task, such as '*FBPTEC4012 Manage raw materials*' and '*FBPBP4002 Manage filling and packaging of fermented beverages*'. Within the artisanal context, the 'managing' is about managing the food or beverage process, which may be carried out by one person, but there are situations where there can be multiple people involved.

If those enrolled in the qualifications require the skills and knowledge to manage workers or a team of workers, then choosing appropriate electives from other training packages is recommended. See section below on 'Elective choices' for more details.

Focus on units across multiple sectors

Three new units, suitable for use across multiple sectors, were developed within this project for the core of the *FBP40619 Certificate IV in Artisan Fermented Products*. They include the following.

Unit code	Unit title	What the unit is about
FBPFST4013	Interpret and respond to food and/or beverage test results	Covers interpreting test results and making decisions about to manage/change the production process in response to the test results, including identifying causes for atypical results.
FBPFST4014	Apply sensory analysis in food and/or beverage production	Covers carrying out sensory evaluations of foods and/or beverages, and using appropriate terminology to describe the properties, including preparing samples and taking action as a result of the evaluation.
FBPTEC4012	Manage raw materials	Covers receiving, handling and storing of raw materials that are used in the production of food and/or beverages, including conducting quality checks on raw materials.

Focus on Brewing

The 'Brewing' specialisation focuses on the skills and knowledge to produce beer produced from grain-based wort and includes the following new units developed within this project.

Unit code	Unit title	What the unit is about
FBPBPG4002	Manage filling and packaging of fermented beverages	Cross sector unit Covers overseeing the set up and operation of a manual filling and packaging process of fermented and carbonated beverages, such as beer or kombucha, into cans, bottles, or kegs.
FBPTEC3003	Filter fermented beverages	Developed for Brewing and Distilling Covers preparing and operating filtration equipment using lenticular, plate and frame and/or centrifugal systems, to filter fermented beverages.
FBPTEC4013	Manage wort production for brewing	Brewing specific unit Covers managing the production of grain-based wort for making beer. Also refers to recording requirements for traceability and ATO requirements.
FBPTEC4014	Manage cellar operations	Developed for Brewing and Distilling Covers managing cellar operations for the production of fermented beverages. Also refers to recording requirements for traceability and ATO requirements.
FBPTEC4015	Manage and propagate yeast	Developed for Brewing and Distilling Covers selecting, propagating and storing yeast for the production of fermented beverages.

Unit code	Unit title	What the unit is about
FBPTEC4021	Apply regulatory requirements to the production of alcoholic beverages	Developed for Brewing and Distilling Covers applying regulatory requirements to the production of alcoholic beverages, including ATO excise.

Focus on Distilling

The 'Distilling' specialisation covers the distillation of white and brown spirits, made from fruit or grain-based wash and aged in wood. The specialisation covers the following new units developed within this project.

Unit code	Unit title	What the unit is about
FBPTEC3003	Filter fermented beverages	Developed for Brewing and Distilling Covers preparing and operating filtration equipment using lenticular, plate and frame and/or centrifugal systems, to filter fermented beverages.
FBPTEC3004	Prepare, fill and store barrels for aging spirits	Distilling specific unit Covers preparing, filling, maintaining and storing barrels for the production of brown spirits.
FBPTEC4014	Manage cellar operations	Developed for Brewing and Distilling Covers managing cellar operations for the production of fermented beverages. Also refers to recording requirements for traceability and ATO requirements.
FBPTEC4015	Manage and propagate yeast	Developed for Brewing and Distilling Covers selecting, propagating and storing yeast for the production of fermented beverages.
FBPTEC4016	Produce fruit-based wash for distillation	Distilling specific unit Covers preparing and fermenting a fruit-based wash for the distillation of spirit. Incorporates recording requirements for traceability and ATO requirements.
FBPTEC4017	Produce grain-based wash for distillation	Distilling specific unit Covers preparing and fermenting a grain-based wash for the distillation of spirit, that will be aged in wood. Incorporates recording requirements for traceability and ATO requirements.
FBPTEC4018	Manage still operations to produce white spirits	Distilling specific unit Covers overseeing the operations of a still and collecting spirits to specification. Incorporates recording requirements for traceability and ATO requirements.
FBPTEC4019	Manage still operations to produce brown spirits	Distilling specific unit Covers overseeing the operations of a still and collecting spirits to specification that will be aged in wood. Incorporates recording requirements for traceability and ATO requirements.
FBPTEC4020	Blend spirits	Distilling specific unit

Unit code	Unit title	What the unit is about
		Covers blending spirits (such as whisky) to specification. Also refers to recording requirements for traceability and ATO requirements.
FBPTEC4021	Apply regulatory requirements to the production of alcoholic beverages	Developed for Brewing and Distilling Covers applying regulatory requirements to the production of alcoholic beverages, including ATO excise.

Users should note that the elective bank of the qualification includes new units that may be particularly relevant to this specialisation, depending on the context they are delivered within. In particular, the following new units:

Unit code	Unit title	What the unit is about
FBPBPG4001	Manage bottling and packaging processes	Cross sector unit Covers overseeing the set up and operation of a manual filling and packaging process of fermented beverages such as spirits.

Focus on food and non-alcoholic beverages

The 'Food and non-alcoholic beverages' specialisation covers the productions of products such as miso, olives and kombucha. The specialisation includes:

Unit code	Unit title	What the unit is about
FBPFST5031	Identify the microbiological and biochemical properties of fermented food and beverages	Could be used for cross sector purposes Covers skills and knowledge to identify the microbiological and biochemical chemical properties of fermented food and/or beverages including the identification of food contamination and spoilage.
FBPTEC4002	Apply principles of food packaging	Revised cross sector unit
FBPTEC4022	Prepare starter cultures for fermentation	Could be used for cross sector purposes Covers preparing starter cultures to be used for for fermenting foods and beverages, including yeast, bacteria, fungi, and yeast and bacterial SCOBY, or combinations.
FBPTEC4023	Control and monitor fermentation	Could be used for cross sector purposes Covers fermenting foods or beverages, such as miso or kombucha, and includes monitoring and adjusting processes to ensure quality.

Users should note that the elective bank of the qualification includes new units that may be particularly relevant to this specialisation, depending on the context they are delivered within. These new elective units include:

Unit code	Unit title	What the unit is about
FBPTEC4024	Produce fermented and dry-cured meat products	Fermented food specific Covers production of fermented and dry-cured meat products, such as caccitona, chorizo, mettwurst, salami and cabanossi.

Unit code	Unit title	What the unit is about
FBPBPG4001	Manage bottling and packaging processes	Cross sector unit Covers overseeing the set up and operation of a manual filling and packaging process of fermented beverages.
FBPBPG4002	Manage filling and packaging of fermented beverages	Cross sector unit Covers overseeing the set up and operation of a manual filling and packaging process of fermented and carbonated beverages, such as beer or kombucha, into cans, bottles, or kegs.

Diploma of Artisan Cheesemaking

The *FBP50319 Diploma of Artisan Cheesemaking* was developed to meet the current job outcomes of those making premium, high-value cheeses on a small scale, where the provenance of the milk is known, and where specialised techniques that are controlled and monitored by the cheesemaker are used, as well as achieving accurate alignment with AQF level 5.

In this role, makers analyse materials and products exercising judgement to guide the cheesemaking process and the work of others.

The *FBP50319 Diploma of Artisan Cheesemaking* is also consistent with the purpose of the AQF Qualifications Pathways Policy in that:

- There are no entrance requirements.
- There is a natural progression from the *FBPSS00039 Prepare to Set up an Artisan Food or Beverage Production Business Skill Set*, *FBPSS00040 Cheesemonger Skill Set*, the *FBPSS00041 Artisan Cheesemaker Skill Set*, *FBPSS00047 Establish an Artisan Food or Beverage Business Skill Set* or the *FBP40619 Certificate IV in Artisan Fermented Products*.
- Assessment leading to an AQF qualification or Statement of Attainment may follow a learning and assessment pathway, or a recognition pathway, or a combination of the two.

Graduates of the *FBP50319 Diploma of Artisan Cheesemaking* may progress to higher education qualifications, but the most likely outcome is for graduates to establish their own small business.

Individuals with this qualification apply integrated technical and theoretical concepts in varied contexts, to analyse situations, synthesise information, and design and evaluate approaches to sometimes unpredictable problems. They use initiative and judgement to organise the work of self and others, and plan and coordinate the work of teams. They may run a cheesemaking business.

All units of competency in this qualification include technical and theoretical knowledge evidence requirements, including in-depth knowledge of:

- quality principles for food technology
- microbiological principles
- food contamination and spoilage
- sensory analysis
- taking samples, interpreting and responding to the results of tests
- legal requirements of food production, including the Food Standards Code
- work, health and safety
- producing lactic acid and rennet coagulated types of artisan cheese
- ripening different styles of cheese.

Cheesemakers require specialist technical skills and theoretical knowledge in artisan cheese production to complete routine and non-routine tasks and functions in a range of situations. Cheesemakers have responsibility for their products, including food safety requirements, and use initiative and judgement to organise the work of self and others.

Consultation with industry stakeholders throughout this project indicates that the typical volume of learning for this qualification would be between 1 to 2 years.

Focus on cheese

Several new units have been developed for this qualification, they include the following.

Unit code	Unit title	What the unit is about
FBPCHE5005	Produce lactic acid coagulated artisan cheese	Core unit – cheese specific Covers producing lactic acid coagulated soft cheese.
FBPCHE5006	Produce rennet coagulated artisan cheese	Core unit – cheese specific Covers producing a range of rennet coagulated artisan cheeses, including washed curd, mould ripened and milled curd.
FBPCHE5008	Ripen artisan cheese	Core unit – cheese specific Covers ripening different types of artisan cheeses (also referred to as cheese maturation or affinage).
FBPCHE5007	Produce acid and heat coagulated artisan cheese	Elective unit - cheese specific Covers producing lactic acid soft cheeses (such as cottage cheese and chèvre) in an artisan cheese making environment
FBPFST4014	Apply sensory analysis in food and/or beverage production	Core unit – cross sector Covers carrying out sensory evaluations of foods and/or beverages, and using appropriate terminology to describe the properties, including preparing samples and taking action as a result of the evaluation.
FBPTEC5003	Design an artisan food production facility	Cross sector elective unit Designing the layout of an artisan food and/or beverage production facility, including its location, required workspaces, work flow and regulatory requirements.

For those establishing a new artisan food production business, the following unit was developed. This unit is also an elective in the Certificate IV.

Unit code	Unit title	Notes
FBPTEC5003	Design an artisan food production facility	Cross sector elective unit Designing the layout of an artisan food and/or beverage production facility, including its location, required workspaces, work flow and regulatory requirements.

For the new cheesemongering skill set, the following new unit was developed.

Unit code	Unit title	Notes
FBPCHE4001	Prepare and present cheese	Cheese specific unit Covers preparing and presenting cheese to customers in a retail environment, including preparing a specified tasting theme and

Unit code	Unit title	Notes
		providing information about various types of cheeses.

Revised units

During this project, a number of existing units were revised with minor changes to ensure they could be delivered and assessed in an artisanal food and beverage setting. These units are now coded as 'Release 2' versions (with the exception of *Carry out sampling and interpret tests for cheese production*, which received a new code) . They include:

Unit code and title	Changes
FBPCEL2009 Carry out transfer operations <i>Release 2</i>	Unit updated to include artisanal beverages. Assessment Conditions updated to include 'beverages'.
FBPCHE5009 Carry out sampling and interpret tests for cheese production	Unit updated to cover requirements of producing artisanal cheese. Minor changes made to unit - Performance Criteria clarified to suit artisan industry requirements. Minor changes to Knowledge Evidence.
FBPFST4009 Label food according to legislative requirements <i>Release 2</i>	Unit updated to include artisanal beverages. Minor changes throughout to include both food and beverages.
FBPFST5010 Implement and review the preparation of milk for processing <i>Release 2</i>	Unit updated to included requirements of producing artisanal products. 'Homogenisation' removed from elements and PCs so that the unit can be applied to artisan cheesemaking settings
FBPFSY4001 Supervise and maintain a food safety plan <i>Release 2</i>	Unit updated to include requirements of producing artisanal products. Minor changes to Knowledge Evidence
FBPTEC4003 Control food contamination and spoilage <i>Release 2</i>	Unit updated to include requirements of producing artisanal beverages. Minor changes to include both food and beverages

Please note, the above information is also included in the *FBP Food, Beverage and Pharmaceutical Training Package, Companion Volume Implementation Guide, Version 3.0* in a varied format.

Foundation skills required for entry into qualifications

There are no formal entry requirements for either the *FBP40619 Certificate IV in Artisan Fermented Products* or the *FBP50319 Diploma of Artisan Cheesemaking*. RTOs need to determine who makes a suitable and appropriate candidate to be enrolled, including whether individuals have the foundation skills (or language, literacy and numeracy skills and employability skills). Enrolments should only progress where RTOs deem the candidate has a reasonable chance of a successful outcome (i.e. be assessed as 'Competent').

The foundations skill demands required of the units in both qualifications can be as high as Australian Core Skills Framework (ACSF) level 4 for learning, reading and numeracy, and level 3 for writing and oral communication. RTOs need to determine whether they have the staff and strategies to support learners to through training and assessment where ACSF levels are lower. In most cases, RTOs should be able to cover a gap of one ACSF level in any skill through a vocational training program.

Skill sets

During the project, nine skill sets were developed - five aim to develop specialist artisanal skills and knowledge for artisanal 'maker' roles, two address the presentation of artisanal food in a retail context, and two address setting up an artisanal food or beverage production business.

The artisanal 'maker' skill sets are targeted to individuals who have some skills and knowledge around workplace health and safety and quality food production, such as chefs or food production workers who may be seeking a change of career, or 'makers' who are currently working in a brewery or a distillery.

Skill set code	Skill set title	What the skill set is about
FBPSS00039	Prepare to Set up an Artisan Food or Beverage Production Business Skill Set	Preparing to set up an artisan food or beverage business, including developing a business plan.
FBPSS00040	Cheesemonger Skill Set	Preparing and storing cheese and conveying knowledge of cheese to customers in a retail environment.
FBPSS00041	Artisan Cheese Maker Skill Set	Working as an artisan cheesemaker to produce various types of cheese for a retail market.
FBPSS00042	Artisan Brewer Skill Set	Working as an artisan brewer to produce various types of beer or fermented beverages for a retail market.
FBPSS00043	Artisan Food and Beverage Fermenter Skill Set	Working in an artisan fermented food and/or beverage business.
FBPSS00044	Artisan Olive Producer Skill Set	Harvesting and producing fermented olives for a retail market,
FBPSS00045	Artisan Distiller Skill Set	Working as an artisan distiller to produce various types of fermented and distilled beverages using a pot still, for a retail market.
FBPSS00046	Present Artisan Food and Beverages Skill Set	Preparing and presenting artisan food or beverages to customers in a retail setting.
FBPSS00047	Establish an Artisan Food or Beverage Business Skill Set	Establishing an artisan food or beverage processing business, including developing a micro-business proposal.

Users should note that there are several skill sets in the *BSB Business Services Training Package* that may be relevant for those setting up an artisan food or beverage production business and may complement the skill sets listed above, or the *FBP40619 Certificate IV in Artisan Fermented Products* and *FBP50319 Diploma of Artisan Cheesemaking*. Particularly relevant skills sets could include:

- *BSBSS00054 Small Business Marketing Skill Set*
- *BSBSS00088 Small Business Survival*
- *BSBSS00055 Small Business Operations Preparatory Skill Set*
- *BSBSS00044 Key Recordkeeping Skill Set*.

Elective choices

Both the *FBP40619 Certificate IV in Artisan Fermented Products* and *FBP50319 Diploma of Artisan Cheesemaking* include packaging rules that allow for choices outside of the general electives listed in the actual qualification.

The BSB Business Services Training Package includes a suite of units targeted at the skills and knowledge required to run a microbusiness, or a small business. These units may be particularly useful elective choices for users looking to establish a business to produce artisan food or beverages.

The *BSB Business Services Training Package* also includes a suite of new cross sector units focused on communication (units coded BSBXCM) and team work (units coded BSBXTW). Units and further information can be downloaded at training.gov.au.

Units of competency and assessment requirements

The units of competency in the *FBP Food, Beverage and Pharmaceutical Training Package*, are presented in the template from the *2012 Standards for Training Packages*. The information is organised into two main parts:

- unit of competency
- assessment requirements.

Below is a cross sector unit of competency that was developed as part of the Artisanal Food and Beverage project, with the associated assessment requirements, with the template fields explained.

Units of competency

FBPFST4014	Apply sensory analysis in food and/or beverage production
Application	<p>This unit of competency describes the skills and knowledge required to carry out sensory analysis of food and/or beverages, and to use appropriate terminology when describing the organoleptic properties.</p> <p>This unit applies to those workers who have responsibility for overseeing the production of food and/or beverages and the quality assurance requirements, and who are responsible to making changes to processing based on the results of the sensory analysis.</p> <p>No licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.</p>

Identifies the work context and who the unit applies to.

A statement in the application field identifies important licensing/regulatory requirements.

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the organoleptic properties of food or beverage	1.1 Recognise the five basic tastes (sweet, salty, bitter, sour and umami) 1.2 Identify the textural properties of food or beverage 1.3 Identify aromas and flavours 1.4 Recognise the effect of colour on the visual properties of food or beverage 1.5 Recognise any personal sensory blind spots
2. Analyse food or beverage samples	2.1 Determine required organoleptic properties for specified product 2.2 Devise or access appropriate recording documentation for the sensory evaluation test 2.3 Prepare samples for analysis 2.4 Analyse sensory properties of food or beverage 2.5 Identify any faults with product 2.6 Identify the factors influencing sensory evaluation tests 2.7 Identify differences between standard specified for product and sample
3. Act on results of analysis	3.1 Record details of analysis using predetermined format 3.2 Discuss outcomes of analysis with team 3.3 Determine action to be taken as a result of the analysis

Elements define the essential outcome of the job task covered in the unit.

Performance criteria specify the performance needed to demonstrate achievement of the element.

Foundation skills, which highlight the language, literacy and numeracy skills, and employability skills that are **not** explicit in the performance criteria, but essential to the job task described in the unit.

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Oral communication skills	<ul style="list-style-type: none"> Uses appropriate terminology and effective communication skills to discuss sensory analysis results and determine actions
Get the work done	<ul style="list-style-type: none"> Think through options to solve problems as they arise

Assessment requirements

The assessment requirements included in the updated templates, place an increased focus on assessment and include:

- performance evidence, including information about the frequency and volume of the tasks to be performed for assessment
- knowledge evidence – what candidates need to know to be able to perform the task effectively
- assessment conditions, that specify physical conditions, resources, specifications, and relationships that must be in place for the assessment to take place.

TITLE	Assessment requirements for FBPFST4014 Apply sensory analysis in food and/or beverage production
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has effectively applied sensory analysis in a food and/or beverage production environment, including:</p> <ul style="list-style-type: none"> • analysing and describing the organoleptic properties of three different food, or three different beverage, products including: <ul style="list-style-type: none"> • taste – sweet, salty, bitter, sour and umami (savoury) • texture • aroma • flavour • colour • visual properties • identifying differences between the three products • identifying product faults • identifying any personal sensory blind spots. 	

Performance evidence describes the practical tasks that must be demonstrated for assessment.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- industry codes of practice relevant to industry sector
- anatomy, physiology and functions of taste and smell to determine sample appearance, texture, aroma and flavour
- the primary flavour characteristics of sweet/sour, umami (savoury) and bitter/salty
- frameworks for organoleptic evaluation, relevant to product
- clarity around what makes a quality product (style, context, specification)
- interaction of sensory activity including the interaction between taste and smell, and effect of temperature on samples
- associated characteristics of mouth feel and appearance
- the various sensory evaluation tests used in the food processing industry
- principles and purpose of test methods implemented (why they are used and what they demonstrate)
- quality requirements for conducting a taste panel
- sensory panels and their make up (and acknowledgement that people have different sensory skills)
- descriptive, discriminative and affective sensory methods
- typical samples used for sensory analysis, including:
 - raw materials, ingredients, final products, packaging materials, and materials which come in contact with the product
 - materials at stages of production
 - process aids and adjuncts
- common testing methods:
 - triangular test, duo-trio test, ranking test, paired comparison test and blending test
 - flavour profile
 - threshold analysis
 - discriminative testing, descriptive testing and affective testing
- typical uses of the results obtained from the sensory analysis:
 - quality assurance at various stages of production
 - quality control and troubleshooting
 - research and development of new products
 - blending.

Knowledge evidence is what candidates need to know to be able to perform the job task effectively.

The assessment conditions specify the mandatory conditions for assessment, the conditions under which the evidence must be gathered, and the mandatory assessor requirements.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a workplace setting or an environment that accurately represents a real food or beverage production environment
- resources, equipment and materials:
 - food and/or beverage product samples for analysis.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Delivery of artisanal food and beverage units of competency

All RTOs must have a documented training and assessment strategy (TAS) for delivery of the units. When preparing the TAS for the artisanal food and beverage units, it is recommended that RTOs note the following information.

Prerequisite units

Prerequisite units must be assessed before the unit in which they appear is assessed. Training may be conducted concurrently, but assessment of the prerequisite unit must be completed before the assessment of the main unit occurs.

RTOs are advised to review any prerequisite units and include these in the delivery sequence and schedule.

There is one unit with a prerequisite included in the *FBP50319 Diploma of Artisan Cheesemaking*. It is a core unit, identified with its prerequisite in the following table.

Unit of competency	Prerequisite requirement
FBPCHE5009 Carry out sampling and interpret tests for cheese production	MSL973013 Perform basic tests

Units with prerequisites may be chosen as electives, within the packaging rules for the qualification, and the same delivery and assessment rules apply – the prerequisite unit must be assessed before the unit in which they appear, is assessed.

Sequence of delivery

Sequencing is ordering the way the content, or units, will be delivered to the learner. The way material is sequenced will impact the learners' comprehension. Complex or detailed information that is not sequenced appropriately is likely to decrease learner retention of information. Likewise, unfamiliar language and terminology needs to be introduced at an appropriate time, level of detail and within the learners' context to help them understand the concepts and topics. Careful consideration needs to be given to the TAS to address this.

Both qualifications include a mix of units that focus on very practical skills and knowledge to support the practical applications of skills. The core units in both qualifications include underpinning skills and knowledge to support the specialist and elective skills, so RTOs should consider developing a TAS that offers core units before the elective units.

Users must note that the unit *FBPCHE5009 Carry out sampling and interpret tests for cheese production* has *MSL973013 Perform basic tests* as a prerequisite. If learners have not already been deemed as competent in *MSL973013*, then candidates must be assessed for this unit before *FBPCHE5009*. (Also see section above on **Prerequisite units**.)

All units should be contextualised for the specialisation, or the particular context of work.

Within the specialisations offered in *FBP40619 Certificate IV in Artisan Fermented Products*, there is a natural progression of skills and knowledge that follows the process of making, for example, the ideal delivery sequence for the **Brewing specialisation**, after the core units, would be:

Sequence	Unit code	Unit title
1	FBPTEC4021	Apply regulatory requirements to the production of alcoholic beverages
2	FBPTEC4015	Manage and propagate yeast
3	FBPTEC4013	Manage wort production for brewing
4	FBPTEC3003	Filter fermented beverages
5	FBPTEC4014	Manage cellar operations
6	FBPBPG4002	Manage filling and packaging of fermented beverages

For the **Distilling specialisation** the ideal sequence of delivery, after the core units, would be:

Sequence	Unit code	Unit title
1	FBPTEC4021	Apply regulatory requirements to the production of alcoholic beverages
2	FBPTEC4015	Manage and propagate yeast
3 or 4	FBPTEC4016	Produce fruit-based wash for distillation
4 or 3	FBPTEC4017	Produce grain-based wash for distillation
5	FBPTEC3003	Filter fermented beverages

Sequence	Unit code	Unit title
6 or 7	FBPTEC4018	Manage still operations to produce white spirits
7 or 6	FBPTEC4019	Manage still operations to produce brown spirits
8	FBPTEC4014	Manage cellar operations
9	FBPTEC4020	Blend spirits
10	FBPTEC3004	Prepare, fill and store barrels for aging spirits

For the **Food and non-alcoholic beverages specialisation**, the ideal delivery sequence, after the core units, would be:

Sequence	Unit code	Unit title
1	FBPFST5031	Identify the microbiological and biochemical properties of fermented food and beverages
2	FBPTEC4022	Prepare starter cultures for fermentation
3	FBPTEC4023	Control and monitor fermentation
4	FBPTEC4002	Apply principles of food packaging

Clustering

Clustering units for delivery can be an efficient use of time and resources and be a better match to what really occurs in the workplace. There is quite a bit of overlap between the knowledge evidence requirements of units and this content could be delivered once to underpin training around practical tasks, and then revisited during training for practical tasks. For example, the health and safety hazards and risks associated with working with ethanol would be addressed in the delivery of the unit *FBPWHS4002 Maintain work health and safety processes* and then revisited in the practical task-based units such as *FBPTEC3003 Filter fermented beverages* and *FBPTEC4018 Manage still operations to produce white spirits*.

It is important to introduce information in a well-structured, sequenced plan and clearly explain key terms and concepts as they are introduced.

Assessment of artisanal food and beverage units of competency

Performance evidence

The performance evidence typically describes a work activity to be demonstrated including the volume and/or frequency requirements (i.e. number of times or number products to be produced).

Knowledge evidence

RTOs should take into consideration knowledge evidence covered in the delivery of prerequisites and in clustered units and not collect evidence unnecessarily i.e. over assess.

The **assessment conditions** section of the unit specifies the conditions under which the assessment must take place and generally covers:

- physical conditions: skills must be demonstrated in a workplace setting or an environment that accurately represents workplace conditions – for most units, this means the assessment must be carried out in a food or beverage production facility, which could be a real workplace, or a simulated environment that accurately reflects a food or beverage production setting, equipped with equipment and machinery appropriate for the context.
- resources, equipment and materials

- specifications
- relationships (internal/external).

Assessment methods

Units of competency and assessment requirements do not specify the method of assessment to be used to collect evidence – assessment methods can be determined by the registered training organisation/assessor when designing the assessment strategy. However, industry recommends that the best practice method for assessing the key tasks listed in the performance evidence is through direct observation of skills by the qualified assessor, to ensure that the assessment is valid, reliable and accurately reflects the standards required in the unit.

Knowledge evidence can be assessed in several ways, including through oral questioning (with an appropriate sheet to record the evidence provided), or through written assessment, which could be online or paper-based.

Legislative and regulatory requirements

RTOs must address legislative and regulatory requirements when training and assessing units of competency that address artisanal food and beverage production. There are several Acts of parliament (both State and Commonwealth) that cover the production of food and beverages.

- *Excise Tariff Act 1921*
- *Excise Act 1901* and *Excise Regulation 2015*
- *National Measurement Act 1960* and the *National Trade Measurement Regulations 2009* (trade measurement law)
- Australia New Zealand Food Standards Code (FSANZ)
- State liqueur licensing and regulations
- Food business licences

Whether or not businesses require a business licence will depend on the type of business it is. Most businesses are not allowed to sell food to the public unless they are registered with their local council. Before opening a new business, operators should contact their local council to find out what the requirements are, including food safety requirements.

There are some food businesses that don't need to register with their local council. Most primary producers will need to register with certain industry regulators. PrimeSafe is the regulator for most businesses whose main activity is selling raw and processed meats, poultry and seafood and Dairy Australia has state bodies that regulate the dairy industry.

The Australian Taxation Office (ATO) regulate the payment of excise tax that applies to the production and sale of alcohol.

Useful links

Organisation	Detail	Contact
Australian Distillers Association (ADA)	A peak body representing independent distillers	http://australiandistillers.org.au
Australian Specialist Cheesemakers' Association (ACSA)	A peak body representing specialist cheesemakers	https://australiancheese.org
Australian Tax Office (ATO)	The ATO regulate taxation requirements, including excise	https://www.ato.gov.au See excise guidelines for the alcohol industry at: https://www.ato.gov.au/law/view/document?DocID=SAV%2FALCOHOL%2F00001

Organisation	Detail	Contact
Food Standards Code	The standards in the Australia New Zealand Food Standards Code are legislative instruments under the <i>Legislation Act 2003</i> .	http://www.foodstandards.gov.au/code/Pages/default.aspx
Independent Brewers Association (IBD)	A peak body representing independent brewers in Australia	http://iba.org.au
Institute of Brewing and Distilling (IBD)	Offer international qualifications in brewing and distilling (not accredited in Australian VET system)	https://www.ibd.org.uk/home

Frequently asked questions

The following questions came up during the project to develop the artisanal food and beverage units, skill sets and qualifications. Stakeholders should feel free to add questions and answers to this list to ensure consistent training and assessment in this field.

FAQ1 Is group assessment allowable for the cheese production units (such as *FBPCHE5006 Produce rennet coagulated artisan cheese*)?

Answer Yes. The production of cheese can be an expensive process to set up, so it is quite feasible that individuals work together in a small group to make cheese from a 10 litre container of milk, for example. Ultimately, each individual should be responsible for at least one cheese, and each individual must be able to meet the knowledge evidence requirements of the unit.

The same concept would apply to training and assessment for the brewing and distilling units.

FAQ2 We only produce brown spirits at our distillery. Do learners undertaking the *FBP40619 Certificate IV in Artisan Fermented Products (Distilling)* have to cover distilling white spirits as well?

Answer Yes. During the development of the *FBP40619 Certificate IV in Artisan Fermented Products*, industry representatives for distilling agreed that everyone who undertakes the distilling specialisation should have the skills and knowledge of the processes used to make both white and brown spirits. However, the units are very similar and could be combined for delivery, where the trainer highlights the differences between the two processes along the way.

FAQ3 Making and ripening cheese can take place over a long period of time (can take several months). Can RTOs cover the entire process in a short time by incorporating the use of cheeses that have been pre-made.

Answer Yes. Using the 'here's one I made previously' approach can ensure that learners know how cheese should (and should not) appear through the ripening process. Previously made cheeses can also be used for assessment purposes.