

**Modification history**

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package version 6.0

FBPHVB3X13	Operate and monitor a baking process
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a high volume baking process to bake cakes, puddings and/or biscuits.</p> <p>This unit applies to individuals who take responsibility for operating and monitoring ovens to bake cakes, pudding and/or biscuits in a high volume baking environment. The work includes identifying and providing solutions to routine and some non-routine problems.</p> <p>All work must be carried out to comply with workplace procedures, in accordance with State/Territory work health and safety, and food safety regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	High volume baking (HVB)

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. Prepare for work in baking area	1.1 Check and confirm production schedule 1.2 Confirm materials are available to meet production requirements 1.3 Wear appropriate personal protective clothing and ensure correct fit 1.4 Prepare cakes, puddings and/or biscuits products and trays to meet production requirements including any pre-bake finishing requirements to meet product specifications 1.5 Confirm services are available and ready for operation
2. Prepare the process for operation	2.1 Check oven is clean and not locked out 2.2 Enter baking temperatures and other parameters as required to meet safety, food safety and production requirements 2.3 Carry out pre-start checks according to workplace health and safety and operating requirements 2.4 Position loading mechanism to feed products into oven in line with specifications
3. Operate and monitor equipment	3.1 Start and operate the baking process to ensure optimal performance 3.2 Monitor equipment and services to ensure optimal performance 3.3 Monitor product to ensure specifications are met 3.4 Take samples and test product to ensure it meets specifications 3.5 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.6 Unload and transfer baked products for cooling and finishing 3.7 Follow and apply workplace cleaning procedures and environmental requirements 3.8 Complete batch processing records according to workplace requirements

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4. Complete the process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process safely according to operating procedures 4.3 Prepare equipment for cleaning in preparation for maintenance or next start-up 4.4 Identify and report maintenance requirements according to workplace requirements 4.5 Complete workplace records according to workplace requirements
5. Recognise and correct common faults	5.1 Test baked product to ensure it meets specifications 5.3 Identify cause of typical faults and how they can be rectified according to workplace requirements 5.4 Discard faulty products according to workplace and environmental guidelines

<b>Foundation Skills</b>	
<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>	
<b>Skill</b>	<b>Description</b>
Learning	<ul style="list-style-type: none"> <li>• Problem-solve issues with process to ensure quality outcomes</li> </ul>
Reading	<ul style="list-style-type: none"> <li>• Interpret workplace and standard operating procedures relevant to work task</li> <li>• Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>• Record processing data using digital and/or paper-based formats</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>• Monitor and interpret baking control indicators and data, including temperature (°C), time, humidity</li> <li>• Monitor supply and flow of materials to and from the process</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FBPHVB3X10 Operate and monitor a pastry baking process		Newly created unit	No equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a>
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<b>TITLE</b>	<b>Assessment requirements for FBPHVB3X13 Operate and monitor a pastry baking process</b>
<b>Performance Evidence</b>	
<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 operated and monitored a baking process to bake at least one batch of cakes, puddings or biscuits to meet product specifications, including:</p> <ul style="list-style-type: none"> <li>• applying safe work procedures</li> <li>• following food safety procedures</li> <li>• confirming oven settings and parameters, including: <ul style="list-style-type: none"> <li>• correct oven settings for baking time</li> <li>• oven zone temperatures</li> <li>• conveyor speed, loaders and dischargers</li> <li>• circulation and exhaust fans</li> <li>• water seals</li> <li>• burner controls and steam</li> <li>• heights, guides and air blowers</li> </ul> </li> <li>• monitoring baked products, including quantities and appearance (colour and sheen, uniformity of shape, weight and size, and moisture)</li> <li>• taking corrective action in response to typical faults and inconsistencies in separated product.</li> </ul>	

<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• purpose and basic principles of each stage of the baking process, including the stages of the baking process and changes that occur in the product, the effect of variables (time, temperature and humidity), and oven zones as appropriate to oven type</li> <li>• basic operating principles of equipment, including: <ul style="list-style-type: none"> <li>• main equipment components</li> <li>• status and purpose of guards</li> <li>• equipment operating capacities and applications</li> <li>• the purpose and location of sensors and related feedback instrumentation</li> </ul> </li> <li>• types of ovens typically used in high volume baking environments, and the principles of heat transfer, including: <ul style="list-style-type: none"> <li>• convection</li> <li>• conduction</li> <li>• radiation</li> <li>• electromagnetic radiation</li> </ul> </li> <li>• quality characteristics to be achieved by the baked product</li> <li>• quality characteristics to be achieved by depanning</li> <li>• the effects of oven heat on different baked products, including cakes, puddings and biscuits</li> <li>• process specifications, procedures and operating parameters for cakes, puddings and biscuits</li> <li>• operating requirements, parameters and corrective action required where operation is outside specified operating parameters</li> <li>• typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>• methods used to monitor the baking process for cakes, puddings and biscuits, including inspecting, measuring and testing, by the process</li> <li>• inspection or test points (control points) in the baking process and the related procedures and recording requirements, including the ability to conduct dew point and/or wet bulb tests</li> <li>• contamination/cross contamination and food safety risks associated with the baking process and related control measures</li> <li>• common microbiological, physical, chemical and allergen hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence</li> </ul>	

<b>Knowledge Evidence</b>
<ul style="list-style-type: none"> <li>• health and safety hazards and controls</li> <li>• requirements of different shutdowns as appropriate to the baking process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage</li> <li>• isolation, lock-out and tag-out procedures and responsibilities relevant to operating a baking process</li> <li>• environmental issues and controls relevant to the baking process, including waste/rework collection and handling procedures related to the process</li> <li>• basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment</li> <li>• routine maintenance procedures for ovens at workplace</li> <li>• cleaning and sanitation procedures for ovens at workplace</li> <li>• procedures and responsibility for reporting production information and traceability of product.</li> </ul>

<b>Assessment Conditions</b>
<p>Assessment of the skills in this unit of competency must take place under the following conditions</p> <ul style="list-style-type: none"> <li>• physical conditions:               <ul style="list-style-type: none"> <li>• a food processing workplace or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials:               <ul style="list-style-type: none"> <li>• personal protective equipment</li> <li>• baking and depanning equipment and related services</li> <li>• product to be baked</li> <li>• sampling schedules and test procedures and equipment</li> </ul> </li> <li>• specifications:               <ul style="list-style-type: none"> <li>• work procedures, including advice on safe work practices, food safety, quality and environmental requirements</li> <li>• information on equipment capacity and operating parameters</li> <li>• specifications, control points and processing parameters</li> <li>• production schedule and recipe/batch instructions</li> <li>• documentation and recording requirements and procedures.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a>
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