



Federal Democratic Republic of Ethiopia

OCCUPATIONAL STANDARD

BAKING

NTQF Level II, III and IV



*Ministry of Education
June 2013*

Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopian Occupational Standards (EOS) are - a core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF). They are national Ethiopia standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopian Occupational Standard comprised of Units of Competence.

A Unit Title describes a distinct work activity. It is documented in a standard format that comprises:

- Reference to Industry Sector, Occupational title, NTQF level
- Unit code
- Unit title
- Unit descriptor
- Unit of Competence
- Elements and performance criteria
- Variables and Range statement
- Evidence guide

Together all the parts of a Unit Title guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the respective occupation with all the key components of a Unit of Competence:

- chart with an overview of all Units of Competence for the respective level including the Unit Codes and Unit of Titles
- contents of each Unit Title(competence standard)
- occupational map providing the Technical and Vocational Education and Training (TVET) providers with information and important requirements to consider when designing training programs for this standards, and for the individual, a career path

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UNIT OF COMPETENCE CHART

Occupational Standard: Baking		
Occupational Code: IND BKG		
NTQF Level II		
IND BKG2 01 0613 Operate a Mixing or Blending Process	IND BKG2 02 0613 Operate a Forming or Shaping	IND BKG2 03 0613 Freeze Dough
IND BKG2 04 0613 Operate a Proving Process	IND BKG2 05 0613 Operate a Baking Process	IND BKG2 06 0613 Operate a Cooling and Slicing Process
IND BKG2 07 0613 Prepare and Produce Cakes	IND BKG2 08 0613 Operate a Pastry Production Process	IND BKG2 09 0613 Manufacture Extruded and Toasted Products
IND BKG2 10 0613 Provide Assistance in Bread, Cake, Pastry and Biscuit Production	IND BKG2 11 0613 Operate a Packaging Process	IND BKG2 12 0613 Work with Temperature Controlled Stock
IND BKG2 13 0613 Conduct Routine Maintenance	IND BKG2 14 0613 Implement the Food Safety Program and Procedures	IND BKG2 15 0613 Provide Basic Emergency Life Support
IND BKG2 16 0613 Participate in OHS Processes	IND BKG2 17 0613 Apply Quality Systems and Procedures	IND BKG2 18 0613 Work In Team Environment
IND BKG2 19 0613 Develop Business Practice	IND BKG2 20 0613 Participate In Workplace Communication	IND BKG2 21 0613 Standardize and Sustain 3S

NTQF Level III

IND BKG3 01 0613 Set up a Production Line for Operation	IND BKG3 02 0613 Operate Interrelated Processes in a Production system	IND BKG3 03 0613 Operate Interrelated Processes in a Packaging System
IND BKG3 04 0613 Operate a Dough Mixing Process	IND BKG3 05 0613 Process Dough	IND BKG3 06 0613 Produce Sponge, Cake and Cookie
IND BKG3 07 0613 Form and Fill Pastry Products	IND BKG3 08 0613 Decorate Cakes and Cookies	IND BKG3 09 0613 Bake Sponges, Cakes and Cookies
IND BKG3 10 0613 Bake Pastry Products	IND BKG3 11 0613 Store, Handle and Use Frozen Dough	IND BKG3 12 0613 Operate a Proving Process
IND BKG3 13 0613 Bake Bread	IND BKG3 14 0613 Monitor the Implementation of Quality and Food Safety Programs	IND BKG3 15 0613 Monitor Storage Facilities
IND BRKG3 16 0613 Perform Basic Tests	IND BKG3 17 0613 Apply Competitive Manufacturing Practices	IND BKG3 18 0613 Apply Raw Materials, Ingredient and Process Knowledge to Production Problems
IND BKG3 19 0613 Diagnose and Respond to Product and Process Faults	IND BKG3 20 0613 Work Safely with Industrial Chemicals and Materials	IND BKG3 21 0613 Use Numerical Application in the Workplace

<p>IND BKG3 22 0613 Implement and Monitor Environmentally Sustainable Work Practices</p>	<p>IND BKG3 23 0613 Apply First Aid</p>	<p>IND BKG3 24 0613 Monitor Implementation of Work Plan/Activities</p>
<p>IND BKG3 25 0613 Apply Quality Control</p>	<p>IND BKG3 26 0613 Lead Work Place Communications</p>	<p>IND BKG3 27 0613 Lead Small Teams</p>
<p>IND BKG3 28 0613 Improve Business Practice</p>	<p>IND BKG3 29 0613 Prevent and Eliminate MUDA</p>	

NTQF Level IV

IND BKG4 01 0613 Apply Marketing Principles to Retail Bakery	IND BKG4 02 0613 Control Bakery Operations to Meet Quality and Production Requirements	IND BKG4 03 0613 Apply Baking Science to Work Practices
IND BKG4 07 0613 Evaluate and Assess Bakery Product	IND BKG4 05 0613 Apply Advanced Finishing Techniques for Specialty cakes and desserts	IND BKG4 06 0613 Explore and Apply Baking Techniques to Develop New Products
IND BKG4 07 0613 Evaluate and Assess Bakery Product	IND BKG4 08 0613 Set up Sustainable Baking operations	IND BKG4 09 0613 Coordinate Material Supply for Baking processes
IND BKG4 10 0613 Prepare Plated Sweets and Desserts	IND BKG4 11 0613 Identify, Evaluate & Control Food Safety Hazards	IND BKG4 12 0613 Identify the Physical & Chemical Properties of Materials, Food & Related Products
IND BKG4 13 0613 Apply an Understanding of Legal Requirements of Food Production	IND BKG4 14 0613 Apply Basic Process Engineering Principles to Food processing	IND BKG4 15 0613 Apply an Understanding of Food Additives
IND BKG4 16 0613 Apply Food Preservation Technologies	IND BKG4 17 0613 Perform Microbiological Procedures in the Food Industry	IND BKG4 18 0613 Conduct Food Safety Audits
IND BKG4 19 0613 Perform Food Test	IND BKG4 20 0613 Implement & Monitor Environmentally Sustainable Work Practices	IND BKG4 21 0613 Plan and Coordinate Maintenance

[IND BKG4 22 0613](#)
Plan and Organize
Work

[IND BKG4 23 0613](#)
Migrate to New
Technology

[IND BKG4 24 0613](#)
Establish Quality
Standards

[IND BKG4 25 0613](#)
Develop Individuals and
Team

[IND BKG4 26 0613](#)
Utilize Specialized
Communication Skills

[IND BKG4 27 0613](#)
Manage and Maintain
Small/Medium Business
Operations

[IND BKG4 28 0613](#)
Apply Problem Solving
Techniques and Tools

NTQF Level II

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Occupational Standard: Baking Level II	
Unit Title	Operate a Mixing or Blending Process
Unit Code	IND BKG2 01 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to combine ingredients and additives in the correct quantities and sequence and to operate and shut down mixing and blending equipment to achieve the required mix characteristics.

Elements	Performance Criteria
1. Prepare the mixing or blending equipment and process for operation	<p>1.1. Materials are confirmed and available to meet production requirements.</p> <p>1.2. Pre-mixes are prepared as required.</p> <p>1.3. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.4. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.5. Processing or operating parameters are entered as required to meet production requirements.</p> <p>1.6. Equipment performance is checked and adjusted as required.</p> <p>1.7. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate the mixing or blending process	<p>2.1. Ingredients and additives are delivered to the mixer in the required quantities and sequence to meet recipe specifications.</p> <p>2.2. The mixing or blending process is started and operated according to workplace policies and procedures.</p> <p>2.3. Equipment is monitored to identify variation in operating conditions.</p> <p>2.4. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.5. Out-of-specification product or process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. Mix is transferred to required production or storage location.</p> <p>2.7. The work area is maintained according to housekeeping standards.</p> <p>2.8. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.9. Workplace records are maintained according to workplace recording requirements.</p>

3. Shut down the mixing or blending process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported.</p>
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Variable	Range
Processes	May include but not limited to: <ul style="list-style-type: none"> • extruding • stamping • cutting
Ingredient addition	May include but not limited to: <ul style="list-style-type: none"> • automatic materials transfer equipment • dosing equipment and/or be manually loaded
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Mixes	May include but not limited to: <ul style="list-style-type: none"> • concentrated pre-mixes • pastes and cocktails • bulk mixes/blends Materials may include: <ul style="list-style-type: none"> • bulk and non-bulk ingredients and additives
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • consignment notes • verification procedures • standard forms and reports
Mixing or blending equipment	May include but not limited to: <ul style="list-style-type: none"> • measuring and weighing equipment, such as scales, load cells • dosing equipment • mixers • pumps • in-line homogenizers • conveyors • bulk materials transfer and materials handling equipment • storage facilities

	Common mixer types include: <ul style="list-style-type: none"> • ribbon and vertical screw mixers/conveyors
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> • the use of process control panels and systems
Shutdown procedures	May include but not limited to: <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Services	May include but not limited to: <ul style="list-style-type: none"> • power • steam • fuel • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge to: <ul style="list-style-type: none"> • prepare premixes for mixing or blending • conduct pre-start checks on machinery used for mixing or blending • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment & apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • purpose and basic principles of preparing mixes and blends, including the characteristics and basic function of ingredients and additives used, method and sequence of ingredient addition required to achieve required blend characteristics, and where relevant, the purpose of conditioning, maturation or holding stages required prior to further processing of the mix • basic understanding of specific gravity and bulk density as appropriate for ingredients used • basic operating principles of mixing/blending equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, the purpose and location of sensors and related feedback instrumentation, and awareness of calibration schedules for scales and related weighing/measuring equipment • services required and action to take if services are not available

	<ul style="list-style-type: none"> • the flow of the mixing process and the effect of mix preparation on downstream processes • procedures for requisitioning, receiving and returning ingredients from stores • ingredient handling requirements and shelf-life or coding • quality characteristics required of ingredients and additives and their effect on mixing process performance, including methods used to condition or prepare ingredients prior to addition • methods used to monitor the blending or mixing process, including inspecting, measuring, and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements, such as: <ul style="list-style-type: none"> ➢ flow rates ➢ ingredient/additive addition sequence ➢ times/temperatures and agitator speeds ➢ required characteristics of blend, such as viscosity, appearance and temperature • required attributes of the mixed or blended output, such as chemical, texture and flavor profiles as required • the effect of the mixing or blending parameters, such as temperature and length of mix time on mixing outcome • contamination and food safety risks associated with the process and related control measures, including product compatibility and cross contamination risks and associated cleaning requirements, as well as common allergens used in mixes prepared • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • common causes of variation and corrective action required • OHS hazards and controls requirements of different shutdowns as appropriate to the blending or mixing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • product or process changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information
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	<ul style="list-style-type: none"> • environmental issues and controls relevant to the mixing or blending process, including waste or rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • characteristics of solutions, suspensions and emulsions where relevant • sampling and testing associated with process monitoring and control where relevant • product labeling and storage requirements where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant 		
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify mixing/blending requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • add/load materials in correct quantities and sequence, such as monitoring automatic ingredient addition and/or manual addition • start, monitor and adjust mixing or blending process equipment to achieve required outcomes, including monitoring flow rates/quantity, time or temperature and mix/blending settings • monitor control points and conduct inspections as required to confirm process remains within specification • monitor supply and flow of ingredients and additives to and from the mixing or blending process • pace mixing/blending to meet production requirements • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out or tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility 		
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	<ul style="list-style-type: none"> • complete workplace records as required • demonstrate batch or product changeovers • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • label and store pre-mixes and/or mixes according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Operate a Forming or Shaping Process
Unit Code	IND BKG2 02 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down bread, cakes, biscuits and pastry forming or shaping process.

Elements	Performance Criteria
1. Prepare the bread, cakes, biscuits and pastry forming process for operation	<p>1.1. Materials and ingredients are confirmed and available to meet operating requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing or operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the bread, cakes, biscuits and pastry forming process	<p>2.1. The process is started and operated according to workplace policies and procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that formed product is produced to specification.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the bread, cakes, biscuits and pastry forming process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Equipment	May include but not limited to: <ul style="list-style-type: none"> depositing, rolling, forming and cutting equipment manual and automated weighing and measuring equipment conveying systems
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Operation of equipment	May include but not limited to: <ul style="list-style-type: none"> the use of process control panels and systems
Workplace information	May include but not limited to: <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions manufacturers' advice standard forms and reports
Shutdown procedures	May include but not limited to: <ul style="list-style-type: none"> cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Services	May include but not limited to: <ul style="list-style-type: none"> power, steam, water, vacuum, compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> conduct pre-start checks on machinery used for bread, cakes, biscuits and pastry dough forming and shaping start, operate, monitor and adjust process equipment to achieve required quality outcomes take corrective action in response to typical faults and inconsistencies complete workplace records as required apply safe work practices and identify OHS hazards and controls safely shut down equipment Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> purpose and basic principles of bread, cakes, biscuits and pastry forming

	<ul style="list-style-type: none"> • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the bread, cakes, biscuits and pastry forming process and the effect of outputs on downstream processes • effect of dough quality on process outcomes • quality characteristics to be achieved by the process • quality requirements of materials and effect of variation on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including procedures for incorporating rework dough and procedures for mending webs as required • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation and corrective action required • OHS hazards and controls requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • cleaning and sanitation procedures where relevant • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant
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Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify bread, cakes, biscuits and pastry forming process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply and condition of necessary materials and services, such as transferring and loading dough into hoppers • confirm condition of dough, such as: <ul style="list-style-type: none"> ➤ dough type matches product specification ➤ dough temperature, consistency/texture, moisture level, weight and colour ➤ dough standing time ➤ dough supply/quantities • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • confirm setting selection, such as: <ul style="list-style-type: none"> ➤ setting parameters for process type ➤ setting equipment speeds ➤ adjusting roller and web settings (as required) ➤ adjusting depositing/extrusion settings (as required) • start, operate, monitor and adjust process equipment to achieve required outcomes, including control points and conducting inspections as required to confirm process remains within specification, such as: <ul style="list-style-type: none"> ➤ bread, cakes, biscuits and pastry size, shape and thickness ➤ bread, cakes, biscuits and pastry weight ➤ dough temperature • form product to specification, such as conducting a trial run in preparation for production run • monitor supply and flow of materials to and from the process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • conduct product/batch changeovers • locate emergency stop functions on equipment • shut down equipment in response to an emergency situation • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
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	<ul style="list-style-type: none"> • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • clean and sanitise equipment according to enterprise procedures • take samples and conduct tests according to enterprise procedures • carry out routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, , including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Freeze Dough
Unit Code	IND BKG2 03 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to freeze bread, cakes, biscuits and pastry dough.

Elements	Performance Criteria
1. Prepare to freeze dough	<p>1.1. Dough freezing requirements are identified.</p> <p>1.2. Freezing equipments/ Freezers are set to meet parameters for snap freezing and for storage as per operating requirement.</p> <p>1.3. Frozen dough meets freezing specifications.</p>
2. Store frozen dough	<p>2.1. Storage conditions retain quality characteristics of frozen dough to meet workplace policies and procedures.</p> <p>2.2. The freezing processes are monitored to ensure that product meets food safety and quality requirements.</p>
3. Thaw frozen dough	<p>3.1. Thawed dough meets food safety and quality requirements.</p> <p>3.2. Unacceptable dough is identified, rectified and/or removed as per workplace policies and procedures.</p> <p>3.3. Waste is disposed of according to workplace procedures.</p> <p>3.4. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>3.5. Housekeeping standards are maintained in the workplace.</p>

Variable	Range
Dough	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Dough that is frozen may be either made up or proved dough. Frozen dough that has not been proved requires an additional step of conditioning before baking. This does not apply to proved dough
Freezing equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> snap freezing equipment, such as storage freezers
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules and recipe instructions
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • freeze and store frozen dough to maintain quality standards • identify the implications of the freezing process on dough products • assess outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • Apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • basic principles of freezing dough, including what occurs to dough during snap freezing and storage stages • freezing equipment used, freezing capacity and the effect of freezing method on product • different handling requirements of made up and proofed dough to preserve the dough structure • purpose and characteristics of packaging liners used to pack frozen dough • procedures for maintaining temperature parameters of freezing equipment, including procedures to be followed when loading and removing dough to preserve temperature conditions • storage patterns to make efficient use of space, allow for product rotation and minimize temperature fluctuations • food safety issues that can result from temperature abuse • the significance of timeliness when both freezing and thawing dough • optimal storage times • the significance of variables, such as dough type and size, on freezing and thawing processes • procedures for efficiently thawing frozen product and the consequences of slow thawing • the effect of freezing/thawing on the quality of the final product • inspections/control points used to confirm that product meets quality requirements and related monitoring requirements • causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements and procedures

Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access freezing requirements for dough type • set equipment to meet the parameters for snap freezing and for storing dough • transfer dough to snap freezer (transfer method must ensure minimal damage to dough structure, which is particularly critical where frozen dough is already proofed) • monitor equipment to confirm that freezing parameters are met • package snap frozen dough for freezer storage as required to prevent moisture loss • transfer snap frozen, packaged dough to frozen storage • thaw dough as required for use • maintain workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills / language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level II	
Unit Title	Operate a Proving Process
Unit Code	IND BKG2 04 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down the process used to carry out the proving of dough.

Elements	Performance Criteria
1. Prepare the proving equipment and process for operation	<p>1.1. Dough is supplied to the prover to meet production/batch requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. Pre-start checks are carried out as required by workplace information and requirements.</p>
2. Operate and monitor the proving process	<p>2.1. The process is started and operated according to workplace procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that proved product meets specifications.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the proving process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down and cleaned according to workplace procedures.</p>

	3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.
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Variable	Range
Equipment	May include but not limited to: <ul style="list-style-type: none"> • provers
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> • the use of process control panels and systems
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Services	May include but not limited to: <ul style="list-style-type: none"> • steam • water • gas • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for proving • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • purpose and basic principles of each stage of the proving process

	<ul style="list-style-type: none"> • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the proving process and the effect of outputs on downstream processes • changes that occur in dough during proving and their effect on the final product • the effect of process variables, such as time, temperature and humidity on process stages • the effect of yeast activity on the end product • quality characteristics to be achieved by the proving process, including factors influencing crust formation and colour • quality requirements of materials and effect of variation on proving process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the proving, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the proving and the related procedures and recording requirements • contamination/food safety risks associated with the proving process and related control measures • batch/product changeover requirements • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the final prove and baking process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • product/process changeover procedures and responsibilities • cleaning and sanitation procedures • environmental issues and controls relevant to the proving process, including waste/rework collection and handling procedures related to the process
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	<ul style="list-style-type: none"> • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify final prove processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that related equipment is clean and correctly configured for final prove and baking process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • specific settings may include: <ul style="list-style-type: none"> ➢ prover time, temperature, humidity and loading arm position ➢ topping application equipment, water sprays and splitters for finishing equipment • start, operate, monitor and adjust proving process equipment to achieve required outcomes, such as monitoring control points and conducting inspections as required to confirm process remains within specification: <ul style="list-style-type: none"> ➢ for final prove, including dough condition/surface and dough size/height ➢ for finishing/topping, including coverage/distribution of topping and visual inspection of appearance • monitor supply and flow of materials to and from the proving process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take proving process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • clean and sanitize equipment • complete workplace records as required

	<ul style="list-style-type: none"> • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Operate a Baking Process
Unit Code	IND BKG2 05 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down processes used to bake and de-pan baked products.

Elements	Performance Criteria
1. Prepare the baking equipment and process for operation	<p>1.1. Materials are confirmed and available to meet operating requirements.</p> <p>1.2. Materials are prepared to meet production requirements.</p> <p>1.3. Services are confirmed as available and ready for operation.</p> <p>1.4. Equipment performance and pans are checked and adjusted as required.</p> <p>1.5. The process is set to meet safety and production requirements.</p>
2. Operate the baking process	<p>2.1. The baking process is started and operated according to workplace policies and procedures.</p> <p>2.2. Product is loaded into oven and baked to specification.</p> <p>2.3. Equipment is monitored to identify variation in operating conditions.</p> <p>2.4. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the baking process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Services	<p>May include but not limited to:</p> <ul style="list-style-type: none"> power

	<ul style="list-style-type: none"> • steam • compressed and instrumentation air
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • in-line provers • ovens • trolleys • oven trays/tins • depanning equipment • cooling tunnels and finishing equipment
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Product	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • bread, cakes, pastry, and biscuits
Operation of equipment and processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the use of process control panels and systems
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for baking products • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.

<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • 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, such as starch gelatinization, the effect of variables (e.g. time, temperature and humidity), and oven zones as appropriate to oven type • basic operating principles of equipment, including the difference between convection and impingement ovens, main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the baking process and the effect of outputs on customer satisfaction and downstream processes, such as packaging • quality requirements of materials and effect of variation on baking process performance • quality characteristics to be achieved by the baked product • process specifications, procedures and operating parameters for different baked bread, cakes, biscuits and pastry products • operating requirements, parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the baking process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the baking process and the related procedures and recording requirements, such as the ability to conduct dew point and/or wet bulb tests as required • contamination/food safety risks associated with the baking process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including risks of spontaneous combustion and limitations of protective clothing and equipment used • 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 • isolation, lock out and tag out procedures and responsibilities • baking process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information 		
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	<ul style="list-style-type: none"> • environmental issues and controls relevant to the baking process, including waste/rework collection and handling procedures related to the process • purpose and operating procedures for related processes, such as in-line proving and finishing equipment where relevant • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify baking process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • confirm condition and quality of ingredients • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational, and rework bins are positioned • confirm settings and parameters, including: <ul style="list-style-type: none"> ➤ correct oven settings are selected for baking time, oven zone temperatures, conveyor speed, loaders and dischargers, circulation and exhaust fans, water seals, burner controls and steam as required ➤ heights, guides and air blowers, and conveyor are correctly set • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: <ul style="list-style-type: none"> ➤ baking output, including quantities and product appearance (color and sheen, uniformity of shape, weight and size and moisture) ➤ confirming product is cleanly removed from the pan (depanning stage) and/or belt/band as required • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment

	<ul style="list-style-type: none"> • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • sort, collect, treat, recycle or dispose of waste, including clearing dust extractors • complete workplace records as required • maintain work area to meet housekeeping standards • set up, start up and monitor the proofer, such as time and temperature, humidity, and position of the loading arm • monitor the proving process according to enterprise procedures, including dough condition/surface and dough size and height • set up and operate finishing equipment according to enterprise procedures, including setting topping application equipment, water sprays and splitters (monitoring typically involves checking appearance to confirm even coverage and/or finish as required by product specification) • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, , including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting

Occupational Standard: Baking Level II	
Unit Title	Operate a Cooling and Slicing Process
Unit Code	IND BKG2 06 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a cooling and slicing process.

Elements	Performance Criteria
1. Prepare the cooling and slicing equipment and process for operation	<p>1.1. Products and equipment are confirmed and available to meet operating requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the cooling and slicing process	<p>2.1. The cooling and slicing process is started and operated according to workplace procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that product is cooled to meet specifications.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the cooling and slicing process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down and cleaned according to workplace procedures.</p>

	3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.
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Variable	Range
Equipment	May include but not limited to: <ul style="list-style-type: none"> materials transfer equipment, such as conveyors and trolleys cooler slicer metal detector and scales
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> the use of process control panels and systems
Workplace information	May include but not limited to: <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions manufacturers' advice, standard forms and reports
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Services	May include but not limited to: <ul style="list-style-type: none"> power, compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> conduct pre-start checks on machinery used for cooling and slicing start, operate, monitor and adjust process equipment to achieve required quality outcomes take corrective action in response to typical faults and inconsistencies complete workplace records as required apply safe work practices and identify OHS hazards and controls safely shut down equipment Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> purpose and basic principles of the cooling and slicing process basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation

	<ul style="list-style-type: none"> • services required and action to take if services are not available • the flow of the cooling and slicing process and the effect of outputs on downstream processes and final product • quality characteristics to be achieved by the process • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the cooling and slicing process, such as inspecting and measuring as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the process and workplace production requirements • product/process changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant 		
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary product and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational 		
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	<ul style="list-style-type: none"> • confirm settings in the cooler, such as: <ul style="list-style-type: none"> ➤ conveyor speed/track position ➤ humidity ➤ air flow/fan settings ➤ product layout/spacing ➤ settings in the slicing equipment: <ul style="list-style-type: none"> ✓ knife condition ✓ machine speed ✓ height/width settings ✓ air pressure • start, operate, monitor and adjust process equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification • monitor supply and flow of product to and from the process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, , including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting

Occupational Standard: Baking Level II	
Unit Title	Prepare and Produce Cakes
Unit Code	IND BKG2 07 0613
Unit Descriptor	This unit describes the performance outcomes, skills and knowledge required to prepare and produce a variety of high-quality cakes. Cakes to be produced and decorated may be of varied cultural origins and derived from classical or contemporary recipes.

Elements	Performance Criteria
1. Prepare and reduce cakes.	<p>1.1 A variety of basic cakes are prepared according to standard recipes and desired product characteristics.</p> <p>1.2 Suitable ingredients are selected according to recipe requirements, quality, freshness and desired product characteristics.</p> <p>1.3 Cakes are made using correct techniques and ensuring appropriate conditions to optimize quality.</p> <p>1.4 Appropriate equipment is used to produce required cakes.</p> <p>1.5 Required oven temperature and bake cakes are selected to ensure the desired characteristics, including color and shape.</p>
2. Decorate and present cakes.	<p>2.1 Cakes are decorated to enhance appearance, using suitable fillings, icings and decorations, according to standard recipes, enterprise standards and customer preferences.</p> <p>2.2 Cakes attractively are presented using suitable service ware and decorations.</p>
3. Store cakes.	<p>3.1 Cakes and ingredients are stored for cake products, optimizing quality and shelf life through appropriate storage methods.</p> <p>3.2 Cakes are stored to minimize spoilage and wastage, identifying storage conditions and using methods appropriate to specific products for short and medium-term preservation.</p>

Variable	Range
Basic cakes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Madeira cake • Genoese sponge • basic aerated sponge • Swiss roll • Fruit cake.
Product characteristics	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • color • consistency and texture

	<ul style="list-style-type: none"> • moisture content • mouth feel and eating properties • Appearance.
Techniques and conditions	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • weighing or measuring and sifting dry ingredients • adding fats and liquids to dry ingredients • stirring and aerating to achieve required consistency and texture • selecting and preparing appropriate cake tins and moulds • using required amount of batter according to desired characteristics of finished products • preparing and using appropriate pre-bake finishes and decorations • selecting baking conditions and temperatures.
Appropriate equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • commercial mixers and attachments • whisks • beaters • spatulas • wooden spoons • cutting implements for nuts and fruits • graters • scales • measures • bowl cutters • piping bags and attachments • ovens • Cake tins and moulds.
Fillings	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • fresh and crystallized fruit • fruit purées • jams • nuts • creams • mousse • Custard.
Decorations	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • glazes and jellies • icings • chocolate • sprinkled icing sugar • fresh, preserved or crystallized fruits • fruit purées • whole or crushed nuts • Colored and flavored sugar.

Storage conditions	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • consideration of temperature, light and air exposure • use of airtight containers • display cabinets, including temperature-controlled cabinets • Refrigeration, chilling and freezing.
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • ability to produce a range of basic cakes • ability to produce cakes that are consistent in quality, size, shape and appearance under typical workplace conditions and time constraints • application of hygiene and safety principles throughout the preparation process • preparation, decoration and presentation of a range of basic cakes within typical workplace conditions
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • varieties and characteristics of basic cakes, both classical and contemporary • historical and cultural aspects of cakes • underlying principles of making cakes • commodity knowledge, including quality indicators of cake ingredients • principles and practices of hygiene particularly in relation to preparing cake batter and decorating finished cake products • culinary terms commonly used in the industry related to cakes • hygiene and safe handling and storage requirements related to cake ingredients, commodities and products • portion control and yield • Storage conditions for cakes and optimizing shelf life.
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • safe work practices, particularly in relation to using cutting implements, appliances, heated surfaces, ovens and mixing equipment • problem-solving skills to control quality • literacy skills to read recipes, menus and instructions • numeracy skills to calculate portions, and weigh and measure quantities of ingredients.
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level II	
Unit Title	Operate a Pastry Production Process
Unit Code	IND BKG2 08 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a pastry production process. This includes mixing and sheeting or layering processes.

Elements	Performance Criteria
1. Prepare the pastry manufacturing equipment and process for operation	<p>1.1. Raw materials and ingredients are confirmed and available to meet operating requirements.</p> <p>1.2. Materials and ingredients are weighed/loaded to meet production requirements.</p> <p>1.3. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.4. Services are confirmed as available and ready for operation.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. The process is set to meet production requirements.</p>
2. Operate the pastry manufacturing process	<p>2.1. The pastry manufacturing process is started and operated according to workplace procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.5. The work area is maintained according to housekeeping standards.</p> <p>2.6. Work is conducted according to workplace information and environmental standards.</p> <p>2.7. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the pastry manufacturing process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Ingredients	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • flour • water • ice • fat (animal or vegetable) • salt • baking powder • pre-mixes • melinta • metrex • sodium propate • rework pastry • sugar and yeast
Ingredient transfer and loading	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • use of bulk materials handling equipment • It is typically partly or fully automated and may involve manual addition of some ingredients
Services	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • power • steam • water, • compressed and instrumentation air
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • weighing, mixing, laminating/rolling, cutting and stacking, and testing equipment • Weighing and measuring equipment may include: • manual and automated systems • Conveyor line attachments depend on product types and may include: spike rollers and cutters
Pastry	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • top and bottom pastry • sweet or savory pastry
Operation of equipment and processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the use of process control panels and systems
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • conduct pre-start checks on equipment used for pastry production • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • purpose and basic principles of the pastry manufacturing process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the pastry manufacturing process and the effect of outputs on customer satisfaction and downstream processes such as filling, forming and baking • quality requirements of materials/ingredients and effect of variation on pastry manufacturing process performance • quality standards required of the finished pastry • pastry manufacturing process specifications, procedures and operating parameters, including preparing dough, laminating, rolling, and cutting and stacking of pastry • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

	<ul style="list-style-type: none"> • methods used to monitor the pastry manufacturing production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the pastry manufacturing process and related control measures • common causes of variation and corrective action required, including the relationships between time and temperature and humidity in the pastry manufacturing process • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the pastry manufacturing process • requirements of different shutdowns as appropriate to the pastry manufacturing process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the pastry manufacturing process • basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment • pastry manufacturing process changeover procedures and responsibilities where relevant • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant • cleaning and sanitation procedures where relevant 		
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify pastry manufacturing processing requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services, such as flour and fat • select ingredients in accordance with recipe specifications • confirm condition and quality of ingredients • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that equipment is clean and correctly configured for pastry manufacturing processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, 		
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	<p>confirming that all safety guards are in place and operational, and positioning rework bins</p> <ul style="list-style-type: none"> • start, operate, monitor and adjust pastry manufacturing process equipment to achieve required outcomes, such as setting up and starting up mixers, rollers and laminating processes to meet production requirements • monitor control points and conduct inspections as required to confirm process remains within specification • monitor supply and flow of materials to and from the dough preparation process and equipment operation to confirm process remains within specification, such as: <ul style="list-style-type: none"> ➤ flour temperature and type ➤ water temperature ➤ fat type, distribution and percentage as required for specific pastry types ➤ rework pastry addition ➤ dough characteristics ➤ mixing time • roll and laminate dough to specification, including ensuring in-line hoppers are filled with flour to prevent pastry sticking to rollers, roller settings are within specification, and checking pastry thickness, fat percentage and the number of pastry layers • monitor supply and flow of materials to and from the laminating process and equipment operation to confirm process remains within specification • cut and stack or roll pastry according to production requirements • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take pastry manufacturing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • demonstrate batch/product changeovers according to enterprise procedures (may not apply to some continuous operations) • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures
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	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Manufacture Extruded and Toasted Products
Unit Code	IND BKG2 09 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down an extrusion, toasting and breaking process used in the manufacture of biscuit products.

Elements	Performance Criteria
1. Prepare the extrusion, toasting and breaking process for operation	<p>1.1. Materials are confirmed and available to meet operating requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the extrusion, toasting and breaking process	<p>2.1. The process is started and operated according to workplace procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that biscuit product meets specifications.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted according to environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the extrusion, toasting and breaking process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Materials	May include but not limited to: <ul style="list-style-type: none"> • pre-mixed dry ingredients and water
Equipment	May include but not limited to: <ul style="list-style-type: none"> • mixers • sieves • extrusion • toasting and breaking equipment
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> • the use of process control panels and systems
Shutdown procedures	May include but not limited to: <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)
Services	May include but not limited to: <ul style="list-style-type: none"> • power • steam • water • vacuum • compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for biscuit manufacture • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls

	<ul style="list-style-type: none"> • safely shut down equipment • apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • purpose and basic principles of each stage of the biscuit manufacturing process • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the process and the effect of outputs on downstream processes • changes which occur in product during processing • quality characteristics to be achieved by the process • quality requirements of materials and effect of variation on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the production process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements • contamination/food safety risks associated with the process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • cleaning and sanitation procedures where relevant • sampling and testing associated with process monitoring and control where relevant • routine maintenance requirements and procedures where relevant

<p>Underpinning Skills</p>	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify extrusion, toasting and breaking process requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services, including ensuring a continuous supply of ingredients to the process • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • confirm extruder settings, such as: <ul style="list-style-type: none"> ➢ water pump is operating ➢ bin discharge speed ➢ temperature and heater ➢ motor speed ➢ screw feed • start, operate, monitor and adjust process equipment to achieve required outcomes., including monitoring control points and conducting inspections as required to confirm the process remains within specification, such as: <ul style="list-style-type: none"> ➢ temperatures ➢ biscuit size (width, length and thickness) ➢ biscuit texture, colour and weight ➢ biscuit moisture level ➢ clean, even break/cut • monitor supply and flow of materials to and from the extrusion, toasting and breaking process • take corrective action in response to out-of-specification results • conduct batch/product changeovers • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • shut down equipment in response to an emergency situation • follow isolation and lock out/tag out procedures as required to take extrusion, toasting and breaking process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • take samples and conduct tests according to enterprise procedures
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	<ul style="list-style-type: none"> • conduct routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Provide Assistance in Bread, Cake, Pastry and Biscuit Production
Unit Code	IND BKG2 10 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to provide assistance in the preparation of bread, cake, pastry and biscuit products.

Elements	Performance Criteria
1. Prepare work area	<p>1.1. Work area and personal hygiene are confirmed as clean and in accordance with work food safety standards.</p> <p>1.2. Requirements for production are confirmed with supervisor or work procedures.</p> <p>1.3. Equipment requirements are identified and equipment checked for availability and readiness.</p> <p>1.4. Ingredients are identified and checked for availability and readiness.</p>
2. Mix ingredients	<p>2.1. Dry ingredients are weighed and/or measured to meet recipe requirements and combined.</p> <p>2.2. Ingredients are poured into mixer and wet ingredients combined according to recipe requirements.</p> <p>2.3. Mixer is operated according to product requirements and operating instructions.</p> <p>2.4. Dough or batter is moved to work area applying safe lifting procedures.</p>
3. Shape dough	<p>3.1. Dough is rolled by hand and shaped according to product requirements.</p> <p>3.2. Flattening and shaping equipment is used according to workplace requirements.</p> <p>3.3. Dough waste is minimized and processed.</p> <p>3.4. Readiness for baking is confirmed by supervisor.</p>
4. Pour batter	<p>4.1. Cake tins are prepared for use.</p> <p>4.2. Mixed product is fed into hopper for automatic dispensing into cake tins.</p> <p>4.3. Cake tins are filled according to product requirements and readiness for baking confirmed.</p>
5. Bake product	<p>5.1. Oven temperatures are confirmed and oven checked for readiness.</p> <p>5.2. Timing required for baking is confirmed.</p>

	<p>5.3. Tins/trays/racks are loaded into oven and baking time monitored.</p> <p>5.4. Tins/trays/racks are turned as required to achieve even baking.</p> <p>5.5. Tins/trays/racks are removed from oven and cooled in accordance with work requirements.</p> <p>5.6. Quality standards are checked and non-compliances identified and reported.</p> <p>5.7. Products are moved to allocated area for finishing or sale.</p>
6. Clean equipment	<p>6.1. Equipment is cleaned to meet production and hygiene requirements.</p> <p>6.2. Waste is disposed of according to workplace procedures.</p> <p>6.3. Work is conducted in accordance with workplace environmental guidelines.</p> <p>6.4. Workplace records are maintained according to workplace recording requirements.</p>

Variable	Range
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • recipe instructions
Quality requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • identifying, rectifying, removing and/or reporting unacceptable products

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • prepare work area according to workplace food safety standards • plan and prepare ingredients, equipment and processes • mix, pour and shape dough or mix according to product requirements • bake according to product requirements • provide assistance for the production of bread, cake, pastry and biscuit products • assess dough outcomes against quality standards • clean equipment

	<ul style="list-style-type: none"> • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • characteristics of ingredient and storage requirements • settings, operating requirements and safety features of equipment used • methods used to confirm accuracy of measuring equipment used • time, temperature and humidity on the baking processes • required characteristics of dough or mix • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning and procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information and liaise with supervisor to identify production requirements • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level II	
Unit Title	Operate a Packaging Process
Unit Code	IND BKG2 11 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down a packaging process or sub-system.

Elements	Performance Criteria
1. Prepare the equipment and process for operation	<p>1.1. Packaging components/consumables, materials and items to be packaged are confirmed and available to meet operating requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Materials, product and packaging components or consumables are loaded or positioned as required to meet packaging requirements.</p> <p>1.6. Equipment performance is checked and adjusted as required.</p> <p>1.7. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the process	<p>2.1. The process is started and operated according to workplace policies and procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that specifications are met.</p> <p>2.5. Out-of-specification process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>

3. Shut down the process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>
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Variable	Range
Packaging	May include but not limited to: <ul style="list-style-type: none"> • vacuum packing • modified atmosphere packaging (MAP) • blister packaging or over wrapping
Equipment	May include but not limited to: <ul style="list-style-type: none"> • conveyor systems • filling • sealing • wrapping • thermo-form equipment • case packers • bundlers • ink jet coders • labelers • palletizes • shrink wrappers • strippers
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> • the use of process control panels and systems
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Shutdown procedures	May include but not limited to: <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide			
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for packing • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures. 		
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • purpose and basic principles of the packaging process, including the purpose and characteristics required of packaging materials used and the principles of the packaging process used (where methods involve vacuum or map packaging, it includes an understanding of the effect of modified atmosphere on product shelf-life) • product and packaging coding requirements and related legal requirements, including product weight • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of processes supplying the packaging process and the effect of outputs on downstream processes • quality characteristics required of the packaging process, such as seal integrity requirements • effect of variation in inputs, such as packaging components/consumables, materials and/or services, on process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam up • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the packaging process, such as visual inspecting, and measuring and testing as required by the process • inspection or test points (control points) in the process and the related procedures and recording requirements 		
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	<ul style="list-style-type: none"> • contamination/food safety risks related to stages in the packaging process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the packaging process, including emergency and routine shutdowns and procedures to follow in the event of a power outage, and conducting basic equipment referencing where required • product/packaging changeover procedures and responsibilities • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance procedures where relevant • packaging integrity testing where relevant • cleaning and sanitation procedures where relevant
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Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify packaging requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary packaging components/consumables, materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, setting coders and printers, selecting appropriate equipment settings and/or related parameters, cancelling isolation or lockouts as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been completed, and confirming that all safety guards are in place and operational • start, operate, monitor and adjust packaging equipment to achieve required outcomes., such as packaging components/consumables and/or product, and monitoring control points (e.g. weights, codes, placement, glue temperatures, alignment and appearance, configuration and seal integrity) as required to confirm process remains within specification • monitor supply and flow of materials to and from the process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility
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	<ul style="list-style-type: none"> • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take packaging equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/process changeovers • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • integrity testing of packaging according to enterprise procedures • carry out routine maintenance according to enterprise procedures • clean and sanitize equipment according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Work with Temperature Controlled Stock
Unit Code	IND BKG2 12 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to store and retrieve temperature controlled stock from appropriate storage facilities.

Elements	Performance Criteria
1. Store stock to meet temperature control requirements	<p>1.1. Goods requiring temperature control are identified to meet workplace requirements.</p> <p>1.2. Goods are located in correct storage areas to meet storage temperature, stores handling and stock rotation requirements.</p> <p>1.3. Stores information is recorded according to workplace requirements.</p>
2. Monitor and maintain temperature of stock within specifications	<p>2.1. Stock temperature is monitored to confirm temperature is within specified limits.</p> <p>2.2. Storage areas are monitored to confirm temperature is within storage zone limits.</p> <p>2.3. Residence time in temperature controlled storage facilities is monitored to meet stock control requirements.</p> <p>2.4. Out-of-specification storage temperatures are identified and corrective action is taken as per workplace policies and procedures.</p>
3. Transfer temperature controlled stock	<p>3.1. Goods are handled and transferred to maintain temperature control and meet stock rotation requirements.</p> <p>3.2. Stores transfer information is recorded according to workplace reporting requirements.</p> <p>3.3. Work is conducted in accordance with workplace information and environmental guidelines.</p>

Variable	Range
Temperature controlled stock	<p>May include but not limited to:</p> <ul style="list-style-type: none"> stock to be stored at a constant temperature and at different temperatures for given durations
Temperature controlled storage facilities	<p>May include but not limited to:</p> <ul style="list-style-type: none"> any controlled temperature environment
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions manufacturers' advice standard forms and reports

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> identify storage requirements of temperature controlled stock monitor temperature of storage area and stock to ensure standards are maintained handle and transfer stock to maintain required conditions identify and act on non-conformances complete workplace documentation apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> Occupational Health and Safety (OHS) hazards and controls, including the purpose and limitations of protective clothing and equipment temperature controlled storage facilities and capacities available in the work area, such as temperature zones within a single store and concepts (e.g. the Cold Chain compliance) as relevant to work requirements temperature control requirements of stock handled in the work area, including acceptable temperature ranges and consequences of failing to meet these ranges, and where required requirements for gradual temperature change stock handling procedures for receiving and locating stock within a store, including stock rotation and procedures for identifying, segregating, and disposing of damaged or potentially unsafe stock stock handling procedures for transferring temperature controlled stock from a temperature controlled environment, including maximum duration stock can be held outside a controlled environment food safety and quality consequences of stock temperature control requirements not being met monitoring procedures and instrumentation, including use of thermometers or other temperature measuring instrumentation notification, recording and reporting requirements

	<ul style="list-style-type: none"> operating procedures for goods handling equipment as required housekeeping requirements for work area recording requirements and procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> access workplace information to determine product handling and storage requirements identify storage requirements including temperature limits, minimum duration at given temperatures, and segregation and co-storage requirements identify temperature controlled storage facilities and temperature zones available select, fit and use personal protective clothing and/or equipment use materials handling equipment in a temperature controlled environment as required to undertake work functions follow procedures to measure temperature of product, such as use of instrumentation as required to take core and surface temperatures read instrumentation, such as temperature gauges, to monitor stores and zone temperatures identify and report out-of-specification temperatures in product and storage facilities take corrective action in response to out-of-specification temperatures including implementation of procedures to segregate damaged or potentially unsafe product complete records of stock receipt and transfer as required maintain work area to meet housekeeping standards use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> Interview / Written Test Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Conduct Routine Maintenance
Unit Code	IND BKG2 13 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to inspect equipment and carry out routine maintenance and/or adjustment using a limited range of hand tools.

Elements	Performance Criteria
1. Conduct routine inspection of plant and equipment	1.1. Equipment is inspected to identify signs of wear. 1.2. Nature of maintenance requirement is assessed.
2. Prepare to conduct routine maintenance	2.1. Maintenance task is assessed to determine tools and services required. 2.2. Equipment is prepared for maintenance. 2.3. Hand tools are selected according to task requirements. 2.4. Tools are checked before use and unsafe and/or faulty items are reported within standard procedures. 2.5. Maintenance is planned and scheduled in consultation with affected work areas to minimize disruption to production.
3. Carry out routine maintenance	3.1. Routine maintenance on equipment is carried out according to workplace procedures. 3.2. Maintenance activities are reported according to workplace reporting requirements.
4. Complete maintenance tasks	4.1. Equipment is returned to operating order. 4.2. Tools and materials are stored according to workplace procedures. 4.3. Relevant personnel are notified of maintenance completion 4.4. Housekeeping standards are maintained. 4.5. Work is conducted in accordance with workplace information and environmental guidelines.

Variable	Range
Inspections of equipment	May include but not limited to: <ul style="list-style-type: none"> informally or as part of a structured program associated with proactive maintenance
Routine maintenance	May include but not limited to: <ul style="list-style-type: none"> Routine maintenance is carried out according to company policies and procedures, licensing requirements, legislative requirements and industrial awards and agreements

Tools and materials	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • a limited range of hand tools, such as spanners and screwdrivers, grease guns, Allen keys and measuring and alignment equipment • Materials may include: • lubricants and consumables for video inkjet printers
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production log books • routine maintenance schedules • manufacturers' advice • condition monitoring information
Typical routine maintenance tasks	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • replacement of consumable components, such as O-rings, hoses, filters and other 'bolt-on/bolt-off' equipment parts • lubrication of equipment and maintenance of fluid levels • simple adjustment, alignment or attachment of equipment components, parts, guides and sensors • clearing blocked nozzles, such as glue nozzles • positioning/attaching equipment components • carrying out basic maintenance on video inkjet machines

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • identify routine maintenance tasks for machine or equipment • monitor operation and identify need for maintenance tasks • schedule maintenance tasks and communicate requirements with affected personnel • select and use appropriate hand tools to undertake routine maintenance • assess readiness for returning machine or equipment to operation or referring for further attention • complete maintenance documentation • apply safe work practices and identify OHS hazards and controls.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • system in place to manage maintenance of plant and equipment in the workplace, including programs, such as responsive, preventative and proactive maintenance as appropriate • responsibilities for participating in the maintenance program, including scope of operator responsibilities, roles of others involved in plant and equipment maintenance and procedures for raising maintenance orders where requirements are outside operator role

	<ul style="list-style-type: none"> • basic operating principles of equipment to be maintained • signs and symptoms of faulty equipment and early warning signs of potential problems • basic checks used to confirm the nature of maintenance requirements, including distinguishing between mechanical and electrical faults and identifying probable causes or conditions that may increase maintenance requirements of equipment used • procedures for issuing, maintaining and storing tools used • safe use of hand tools and measuring instrumentation relevant to maintenance responsibilities • lubrication requirements, including requirements to use food grade lubricants as required and consequences of using incorrect type or amount of lubricants • safe work procedures, including appropriate signage of maintenance activities as required, use of appropriate personal protective clothing and equipment, and awareness of safety hazards and controls relating to maintenance tasks • methods used to render equipment safe to work on or clean including lock out/tag out and isolation procedures (in some cases this may involve liaising with other maintenance operators) • procedures and inspections to be carried out to confirm that equipment is in operating order and all parts are accounted for • food safety risks arising from poor personal hygiene, cleaning and housekeeping practices and procedures associated with routine maintenance • maintenance planning, scheduling and recording procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information such as the equipment history, faults or difficulties • select, fit and use personal protective clothing and/or equipment • inspect equipment for signs of wear, such as visual inspections to detect leaks, listening for unusual noises and/or vibrations • identify and describe maintenance requirements, including the ability to assess the urgency of the maintenance issue, recognise common types of maintenance requirements and run basic checks according to workplace procedures to confirm the need for and type of maintenance support required • take action to address maintenance requirements, such as carrying out routine maintenance within level of skill and responsibility and/or reporting outstanding maintenance to appropriate personnel using the required forms or request system

	<ul style="list-style-type: none"> • plan and schedule maintenance within level of responsibility, such as consulting affected personnel and/or work areas on timing and notifying of maintenance progress • prepare equipment and work area for routine maintenance, including cleaning equipment prior to carrying out maintenance and confirming that equipment is safe to work on, and simple isolation or tag out of equipment as required by workplace procedure • select and use hand tools as required to carry out maintenance task • select relevant parts and materials as required to carry out maintenance task • carry out routine maintenance tasks according to workplace procedures • on completion of maintenance tasks, return equipment to operational order, including confirming that all equipment parts, nuts and bolts are accounted for and correctly tightened, and where required, cleaning and sanitizing equipment • store tools in designated location, including basic tool maintenance, such as oiling • complete records of maintenance as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Implement the Food Safety Program and Procedures
Unit Code	IND BKG2 14 0613
Unit Descriptor	This unit of competency covers the skill and knowledge required to maintain personal hygiene and conduct food handling, housekeeping and waste disposal related to work tasks and responsibilities where work involves operation of production and/or packaging equipment and processes.

Elements	Performance Criteria
1. Implement the food safety program	<p>1.1. Food handling requirements are identified.</p> <p>1.2. Food handling is carried out according to the food safety program.</p> <p>1.3. Food safety hazards are controlled as required by the food safety program.</p> <p>1.4. Where food safety control requirements are not met, the incident is promptly reported and corrective action is taken.</p> <p>1.5. Food safety information is recorded to meet requirements of the food safety program.</p> <p>1.6. The workplace is maintained in a clean and tidy order to meet workplace standards.</p> <p>1.7. Work is conducted in accordance with workplace information and environmental guidelines.</p>
2. Participate in maintaining and improving food safety	<p>2.1. Work area, materials, equipment and product are routinely monitored to ensure compliance with food safety requirements.</p> <p>2.2. Processes, practices or conditions which could result in a food safety breach are identified and reported according to workplace reporting requirements.</p> <p>2.3. Corrective action is taken in accordance with the food safety program.</p> <p>2.4. Food safety issues are raised with designated personnel.</p>
3. Comply with personal hygiene standards	<p>3.1. Personal hygiene meets the requirements of the food safety program.</p> <p>3.2. Health conditions and/or illness are reported as required by the food safety program.</p> <p>3.3. Clothing and footwear appropriate for the food handling task and meets the requirements of the food safety program are worn.</p> <p>3.4. Movement around the workplace complies with the food safety program.</p>

Variable	Range
Food handling	May include but not limited to: <ul style="list-style-type: none"> • food receipt and storage • food preparation • cooking, holding, cooling, chilling and reheating • packaging, disposal
A food safety program	May include but not limited to: <ul style="list-style-type: none"> • A food safety program is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • food safety program • Standard Operating Procedures (SOPs) • specifications • log sheets • written or verbal instruction
Monitoring	May include but not limited to: <ul style="list-style-type: none"> • taking temperatures • collecting samples • conducting visual inspections • conducting other tests as required
Examples of a breach of food safety procedures	May include but not limited to: <ul style="list-style-type: none"> • failure to check delivery temperatures of potentially hazardous chilled food • failure to place temperature-sensitive food in temperature controlled storage conditions promptly • failure to wash hands when required • use of cloths for unsuitable purposes
Hygiene requirements	May include but not limited to: <ul style="list-style-type: none"> • Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations
Reporting of health conditions and illnesses requirements	May include but not limited to: <ul style="list-style-type: none"> • Reporting of health conditions and illnesses requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations
Products/materials handled and stored	May include but not limited to: <ul style="list-style-type: none"> • raw materials • ingredients • consumables

	<ul style="list-style-type: none"> • part-processed product • finished product • cleaning materials
Responsibility for monitoring food safety	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Responsibility for monitoring food safety, identifying breaches in food safety procedures and taking corrective action relates to own tasks and responsibilities and occurs in the context of the food safety program in the workplace
Food safety hazard	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • A food safety hazard is a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect

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Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • identify own responsibilities with regard to food safety • identify food safety risks in the workplace and the control measures used to manage them • apply control measures in own work • monitor compliance with food safety standards • identify and act on non-compliances and participate in improving safety • maintain required standards of personal hygiene • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • sources of information and expertise on procedures and responsibilities for food safety relating to own work • basic concepts of HACCP-based food safety, including identification of hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met • food safety management arrangements in the workplace, including awareness of food safety legislation, workplace policies and procedures to implement responsibilities, understanding the relationship between the quality system and food safety program, personnel responsible for developing and implementing the food safety program, the role of internal and external auditors as appropriate, procedures followed to investigate contamination events, and performance improvement processes • awareness of common microbiological, physical and chemical 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

	<ul style="list-style-type: none"> • basic understanding of the properties, handling and storage requirements of ingredients, materials and products handled and used • suitable standard for materials, measuring devices, equipment and utensils used in the work area • food safety requirements related to work responsibilities, including personal hygiene, requirements and procedures to report illness and safe food handling practices for own work • methods used to monitor that food safety is under control, including the purpose of sampling and taking measurements, such as temperature and pH, and conducting inspections and tests • action required in the event of non-compliance (corrective action is typically described in the food safety program and/or related workplace information) • purpose of keeping records and the recording requirements of the food safety program • methods used in the workplace to isolate or quarantine food which may be unsafe • product and ingredient traceability procedures, such as product recall where required by work responsibilities • clothing and footwear requirements for working in and/or moving between food handling areas • personal clothing maintenance, laundering and storage requirements • appropriate bandages and dressings to be used when undertaking food handling • housekeeping requirements and responsibilities relating to own work, and use and storage of housekeeping/cleaning equipment where relevant • procedures to follow in the event of pest sighting or discovery of infestation • purpose and importance of cleaning and sanitation procedures • waste collection, recycling and handling procedures relevant to own work responsibilities • cleaning and sanitation procedures where relevant • impact of rework handling/addition on food safety where relevant • sampling and test methods where relevant
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Provide Basic Emergency Life Support
Unit Code	IND BKG2 15 0613
Unit Descriptor	This unit of competency describes the skills and knowledge required to recognize and respond to life threatening emergencies using basic life support measures only.

Elements	Performance Criteria
1. Respond in an emergency situation	<p>1.1 Emergency situation is recognized and hazards to health and safety of self and others identified as per set requirements.</p> <p>1.2 Immediate risk to health and safety of self, casualty and others is minimized by isolating any hazard(s).</p> <p>1.3 Casualty is assessed and injuries, illnesses and conditions are identified.</p> <p>1.4 The need for assistance is assessed.</p>
2. Apply identified first aid procedures	<p>2.1 Casualty is reassured in a caring and calm manner and comfortable made using available resources.</p> <p>2.2 The nature of casualty's injury/condition and relevant first aid procedures are determined and explained to provide comfort.</p> <p>2.3 Consent is sought from casualty or significant other prior to applying first aid management.</p> <p>2.4 Respond to the casualty in a culturally aware, sensitive and respectful manner.</p> <p>2.5 Identified first aid procedures are used as required in accordance with established first aid principles, policies and procedures, guidelines and/or state/territory regulations, legislation and policies and industry requirements.</p> <p>2.6 Safe manual handling techniques are used as required.</p>
3. Communicate details of the incident	<p>3.1 Ambulance support and/or appropriate medical assistance is/are requested according to relevant circumstances and using available means of communication.</p> <p>3.2 Accurately convey assessment of casualty's condition and first aid procedures undertaken to emergency services/relieving personnel.</p> <p>3.3 Information is calmly provided to reassure casualty, adopting a communication style to match the casualty's level of consciousness.</p> <p>3.4 Reports are provided, where applicable, in a timely manner, presenting all relevant facts according to established procedures.</p>

	3.5 Confidentiality of records and information is maintained in line with privacy principles and statutory and/or organization policies.
4. Evaluate own performance	<p>4.1 Feedback is sought from <i>appropriate clinical expert</i>.</p> <p>4.2 The possible psychological impacts on rescuers of involvement in critical incidents are recognized.</p> <p>4.3 Participate in debriefing/evaluation as appropriate to improve future response and address individual needs.</p>

Variable	Range
A hazard	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • A source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Condition of the casualty	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Severe bleeding • Absence of signs of life: <ul style="list-style-type: none"> ➢ unconscious ➢ unresponsive ➢ not moving ➢ not breathing normally • Choking/airway obstruction • Severe allergic reaction
Identified first aid procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Cardiopulmonary Resuscitation (CPR) • Control severe bleeding • Airway management • Provide assistance with self-administered medications, such as auto-injector, puffer/inhaler in line with state/territory regulations, legislation and policies and any available medical/pharmaceutical instructions • Care of the unconscious person
Resources and equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • First aid kit • Resuscitation mask or barrier • Casualty's medication • Manikin • Automated External Defibrillator (if available) • Auto-injector • Puffer/inhaler
Appropriate clinical expert	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Supervisor/manager • Ambulance officer/paramedic • Other medical/health worker

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<p>Critical Aspects of Competence</p>	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • The individual being assessed must provide evidence of specified essential knowledge as well as skills • Competence should be demonstrated working individually and, where appropriate, as part of a first aid team. • Consistency of performance should be demonstrated over the required range of situations relevant to the workplace or community setting • Currency of CPR knowledge and skills is to be demonstrated in line with state/territory regulations, legislation and policies, and industry guidelines
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • Awareness of stress management techniques and available support • Basic anatomy and physiology relating to: • absence of signs of life: <ul style="list-style-type: none"> ➤ unconscious ➤ unresponsive ➤ not moving ➤ not breathing normally ➤ choking/airway obstruction ➤ severe bleeding ➤ shock • Chain of survival • Duty of care requirements • First aid procedures for: <ul style="list-style-type: none"> ➤ airway management ➤ bleeding control ➤ care of unconscious ➤ casualty with no signs of life ➤ chest pain ➤ infection control as it relates to standard precautions ➤ respiratory distress, including asthma ➤ severe allergic reaction ➤ shock • How to access emergency response support services/personnel • Need to be culturally aware, sensitive and respectful • Own skills and limitations • Privacy and confidentiality requirements • Relevant workplace hazards • State/territory regulations, legislation and policies, ARC Guidelines and accepted industry practice relating to currency of skill and knowledge • Understanding of the use of an Automated External Defibrillator (AED), including when to use and when not to

Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • Assess vital signs and responses of casualty • Call an ambulance and/or medical assistance, according to circumstances and report casualty's condition • Demonstrate first aid casualty management principles: <ul style="list-style-type: none"> ➢ assess and minimize danger ➢ check for response ➢ maintain casualty's airway, breathing and circulation <p>Demonstrate:</p> <ul style="list-style-type: none"> ➢ consideration of the welfare of the casualty ➢ correct procedures for CPR on a resuscitation manikin ➢ implementation of standard precautions ➢ safe manual handling of casualty <ul style="list-style-type: none"> • Identify and minimize hazards to health and safety of self and others in the immediate workplace or community environment • Plan an appropriate first aid response in line with established first aid principles, policies and procedures, ARC Guidelines and/or state/territory regulations, legislation and policies and industry requirements and respond appropriately to contingencies in line with own level of skills and knowledge • Report details of emergency incident and first aid provided
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Participate in OHS Processes
Unit Code	IND BKG2 16 0613
Unit Descriptor	This unit of competency specifies the workplace performance required for an entry level employee to participate in Occupational Health and Safety (OHS) processes in the workplace, in order to ensure their own health and safety at work, as well as that of those in the workplace who may be affected by their actions.

Elements	Performance Criteria
1. Plan and prepare to work safely	<p>1.1. Hazards in the work area are identified and action taken to control risks for those hazards the employee can correct.</p> <p>1.2. Hazards and inadequacies in control measures the employee cannot correct are reported in accordance with organization procedures.</p> <p>1.3. Pre-start checks are carried out as required according to work procedures.</p>
2. Conduct work safely	<p>2.1. Personal protective equipment is used correctly and maintained when required.</p> <p>2.2. Work procedures and workplace instructions for ensuring safety are followed when planning and conducting work.</p> <p>2.3. Incidents and injuries to are reported to designated personnel.</p> <p>2.4. OHS housekeeping is undertaken in work area.</p>
3. Participate in OHS consultative activities	<p>3.1. Knowledge of roles and responsibilities of OHS representatives and OHS committees is applied.</p> <p>3.2. Constructive contribution to workplace meetings, workplace inspections or other OHS consultative activities is made.</p> <p>3.3. OHS issues are raised with designated personnel according to organization procedures.</p> <p>3.4. Input to improve workplace OHS systems and processes is provided to eliminate hazards or reduce risk according to organization procedures.</p>
4. Follow emergency response procedures	<p>4.1. Emergency situations are identified and reported.</p> <p>4.2. Organization procedures are followed for responding to emergencies.</p>

Variable	Range
Hazards	<p>May include but not limited to:</p> <ul style="list-style-type: none"> a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these

Risks	May include but not limited to: <ul style="list-style-type: none"> the probability and consequences of injury, illness or damage resulting from exposure to a hazard
Specific hazards	May include but not limited to: <ul style="list-style-type: none"> chemicals bodily fluids sharps noise manual handling work posture underfoot hazards moving parts of machinery cytotoxic medicines and waste
Other workplace hazards	May include but not limited to: <ul style="list-style-type: none"> occupational violence stress fatigue bullying
Residual risk	May include but not limited to: <ul style="list-style-type: none"> the risk which remains after controls have been implemented
Personal protective equipment	May include but not limited to: <ul style="list-style-type: none"> equipment worn by a person to provide protection from hazards, by providing a physical barrier between the person and the hazard and may include: <ul style="list-style-type: none"> head protection face and eye protection respiratory protection hearing protection hand protection clothing and footwear
Incidents	May include but not limited to: <ul style="list-style-type: none"> any event that has caused, or has the potential for, injury, ill-health or damage
Designated personnel	May include but not limited to: <ul style="list-style-type: none"> team leaders supervisors OHS representatives OHS committee members managers organization OHS personnel other persons designated by the organization employers in office based practice
OHS housekeeping	May include but not limited to: <ul style="list-style-type: none"> workplace and personal routines designed to improve health and safety, for example, cleaning up spills, keeping walkways, exits and traffic areas clear

Emergency situations	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • any abnormal or sudden event that requires immediate action, such as: • serious injury events • events requiring evacuation • fires and explosions • hazardous substance and chemical spills • explosion and bomb alerts • security emergencies, such as armed robberies, intruders and disturbed persons • internal emergencies, such as loss of power or water supply and structural collapse • external emergencies and natural disasters, such as flood, storm and traffic accident impacting on the organization
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • in an actual or simulated workplace context involving relevant work processes • to their own health and safety within their work area • to that of others who may be affected by their actions • A candidate must also be able to provide evidence of participating in workplace OHS processes • Evidence gathered by an assessor to determine competence will include practical demonstration of competence, including: <ul style="list-style-type: none"> ➢ workplace demonstration, simulation exercise, scenario or role play • indirect evidence from workplace supervisor reports and workplace documentation
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • applicable commonwealth, state or territory OHS legislation, regulations, standards, codes of practice and industry standards/guidance notes relevant to own work, role and responsibilities • safety signs and their meanings, including signs for: <ul style="list-style-type: none"> ➢ personal protective equipment ➢ emergency equipment ➢ dangerous goods class signs ➢ specific hazards, such as sharps and radiation • legal rights and responsibilities of the workplace parties • the difference between hazard and risk • nature of common workplace hazards, such as chemicals, bodily fluids, sharps, noise, manual handling, work postures, underfoot hazards and moving parts of machinery • standard emergency signals, alarms and required responses • the elements within the hierarchy of control • safety measures related to common workplace hazards

	<ul style="list-style-type: none"> • sources of OHS information in the workplace • the roles and responsibilities of employees, supervisors and managers in the workplace • roles and responsibilities of OHS representatives, OHS committees and employers • workplace specific information, including: <ul style="list-style-type: none"> • hazards of the particular work environment • potential emergencies relevant to the workplace • designated person for raising OHS issues • organization and work procedures particularly those related to performance of own work, specific hazards and risk control, reporting of hazards, incidents and injuries, consultation, use of personal protective equipment and emergency response • potential emergency situations, alarms and signals, and required response
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • follow clear, logical verbal or clear, logical Plain English written instructions • interpret selected pictorial/graphical and written signs/instructions • clarify meaning with peers and supervisors • give accurate verbal or written descriptions of incidents or hazards • participate in OHS activities, including inspections, meetings and risk assessments
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Apply Quality Systems and Procedures
Unit Code	IND BKG2 17 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to apply quality principles and system requirements when carrying out work responsibilities where work involves the operation of packaging and/or processing equipment. This unit has application in a food processing environment. It typically targets the production worker responsible for applying quality standards to work operations.

Elements	Performance Criteria
1. Monitor quality of work outcome	<p>1.1. Quality requirements are identified.</p> <p>1.2. Inputs are inspected to confirm capability to meet quality requirements as per workplace policies and procedures.</p> <p>1.3. Work is conducted to produce required outcomes.</p> <p>1.4. Work processes are monitored to confirm quality of output and/or service.</p> <p>1.5. Processes are adjusted to maintain outputs within specification.</p>
2. Participate in maintaining and improving quality at work	<p>2.1. Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements.</p> <p>2.2. Work is conducted in accordance with workplace information and environmental guidelines.</p> <p>2.3. Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements.</p> <p>2.4. Corrective action is taken within level of responsibility, to maintain quality standards.</p> <p>2.5. Quality issues are raised with designated personnel.</p>

Variable	Range
Policies and procedures	Work is carried out in accordance with company policies and procedures, licensing and regulatory requirements, legislative requirements and industrial awards and agreements
Workplace information	<p>Workplace information may include:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • quality specifications • food safety plans • log sheets • standard forms and reports

Control points	Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical) as well as quality and regulatory control points
Monitoring quality	Monitoring quality includes observation and other checks, tests or inspections to confirm that the work output meets defined specifications or quality standards. This can include the use of data collection and analysis tools, such as control charts. Tests or inspections may be carried out by the operator, a third party or be automated
Reporting and recording systems	Reporting and recording systems may be: <ul style="list-style-type: none"> • verbal • written • electronic • screen-based
Participating in improvement	Participating in improvement may involve: <ul style="list-style-type: none"> • participation in structured improvement programs • one-off projects • day-to-day problem solving

Evidence Guide			
Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> • identify quality requirements and key elements of the quality system • conduct work according to quality standards • monitor quality and identify and act on non-compliances • participate in identifying quality system improvements. 		
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> • quality policy, procedures and responsibilities • quality system used in the workplace, including the relationship between the quality system and food safety program, sources of information on quality requirements, the role of internal and external auditors, as appropriate, and performance improvement processes • basic concepts of quality assurance including hazards, risk assessment and control methods • requirements of internal and external customers • control points for own work, including the purpose of the control point, the risk if not controlled and the method of control used • monitoring, testing and inspection procedures relating to process control requirements • scope to correct/control variation within equipment and process capacity parameters • evidence of out-of-specification or unacceptable performance • procedures for responding to out-of-specification or unacceptable performance/outcomes, including procedures for identifying or isolating materials or product of unacceptable quality 		
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	<ul style="list-style-type: none"> • systems used to trace product ingredients as relevant to own work • requirements to report and record quality information • sampling and test methods and procedures where relevant
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • access and apply workplace information on quality requirements for own work • identify control points or inspection points for own work and related methods used to monitor quality • maintain quality of own work, including relevant checks and inspections where required in order to monitor control points and check and inspect equipment, materials, product, packaging consumables, processing conditions and service standards relevant to own work • identify and correct variation within boundaries of work role, and use quality data where required • determine when and how to make adjustments to maintain output within specified parameters • identify and respond to out-of-specification or unacceptable inputs and/or outputs • record quality data in required format • conduct tests related to work responsibilities according to enterprise procedures • collect samples as required by sampling regime according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Work in Team Environment
Unit Code	IND BKG2 18 0613
Unit Descriptor	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

Elements	Performance Criteria
1. Describe team role and scope	<p>1.1 The role and objective of the team are identified from available sources of information.</p> <p>1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.</p>
2. Identify own role and responsibility within team	<p>2.1 Individual role and responsibilities within the team environment are identified.</p> <p>2.2 Roles and responsibility of other team members are identified and recognized.</p> <p>2.3 Reporting relationships within team and external to team are identified.</p>
3. Work as a team member	<p>3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives.</p> <p>3.2 Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and workplace context.</p> <p>3.3 Observed protocols in reporting using standard operating procedures.</p> <p>3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.</p>

Variable	Range
Role and objective of team	<ul style="list-style-type: none"> • Work activities in a team environment with enterprise or specific sector • Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment
Sources of information	<ul style="list-style-type: none"> • Standard operating and/or other workplace procedures • Job procedures • Machine/equipment manufacturer's specifications and instructions • Organizational or external personnel

	<ul style="list-style-type: none"> • Client/supplier instructions • Quality standards • OHS and environmental standards
Workplace context	<ul style="list-style-type: none"> • Work procedures and practices • Conditions of work environments • Legislation and industrial agreements • Standard work practice including the storage, safe handling and disposal of chemicals • Safety, environmental, housekeeping and quality guidelines

Evidence Guide	
Critical aspects of competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Operate in a team to complete workplace activity • Work effectively with others • Convey information in written or oral form • Select and use appropriate workplace language • Follow designated work plan for the job • Report outcomes
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Communication process • Team structure • Team roles • Group planning and decision making
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Communicate appropriately, consistent with the culture of the workplace
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level II	
Unit Title	Develop Business Practice
Unit Code	IND BKG2 19 0613
Unit Descriptor	This unit specifies the outcomes required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced.

Elements	Performance Criteria
1. Identify business opportunity	<p>1.1 Business opportunities are investigated and identified.</p> <p>1.2 Feasibility study is undertaken to determine likely business viability.</p> <p>1.3 Market research on product or service is undertaken.</p> <p>1.4 Assistance with feasibility study of specialist and relevant parties is sought as required.</p> <p>1.5 Impact of emerging or changing technology including e-commerce, on business operations is evaluated.</p> <p>1.6 Practicability of business opportunity assessed in line with perceived risks, returns sought and resources available.</p> <p>1.7 Business plan for operation is completed.</p>
2. Identify personal business skills	<p>2.1 Financial and business skills available are identified and taken into account when business opportunities are researched.</p> <p>2.2 Personal skills/attributes are assessed and matched against those perceived as necessary for a particular business opportunity.</p> <p>2.3 Business risks are identified and assessed according to resources available and personal preferences.</p>
3. Plan for establishment of business operation	<p>3.1 Business structure and operations are determined and documented.</p> <p>3.2 Procedures to guide operations are developed and documented.</p> <p>3.3 Financial backing for business operation is secured.</p> <p>3.4 Business legal and regulatory requirements are identified and complied.</p> <p>3.5 Human and physical resources required to commence business operation are determined.</p> <p>3.6 Recruitment strategies are developed and implemented.</p>

4. Implement establishment plan	<p>4.1 Marketing of business operation is undertaken.</p> <p>4.2 Physical and human resources to implement business operation are obtained.</p> <p>4.3 Operational unit to support and coordinate business operation is established.</p> <p>4.4 Monitoring process for managing operation is developed and implemented.</p> <p>4.5 Legal documents are carefully maintained and relevant records are kept and updated to ensure validity and accessibility.</p> <p>4.6 Contractual procurement rights for goods and services including contracts with relevant people, negotiated and secured as required in accordance with the business plan.</p> <p>4.7 Options for leasing/ownership of business premises identified and contractual arrangements completed in accordance with the business plan.</p>
5. Review implementation process	<p>5.1 Review process for implementation of business operation is developed and implemented.</p> <p>5.2 Improvements in business operation and associated management process are identified.</p> <p>5.3 Identified improvements are implemented and monitored for effectiveness.</p>

Variable	Range
Business opportunities	<p>maybe influenced by:</p> <ul style="list-style-type: none"> • expected financial viability • skills of operator • amount and types of finance available • returns expected or required by owners • likely return on investment • finance required • lifestyle issues
Business viability	<p>may include:</p> <ul style="list-style-type: none"> • opportunities available • market competition • timing/ cyclical considerations • skills available • resources available • location and/ or premises available • risk related to a particular business opportunity, especially • in regard to Occupational Health and Safety and • environmental considerations

Specialist and relevant parties	<p>may include:</p> <ul style="list-style-type: none"> • Chamber of commerce • Financial planners and financial institution representatives, business planning specialists and marketing specialists • accountants • lawyers and providers of legal advice • government agencies • industry/trade associations • online gateways • business brokers/business consultants
Human and physical resources	<p>may include:</p> <ul style="list-style-type: none"> • software and hardware • office premises • communications equipment • specialist services through outsourcing, contracting and consultancy • staff and vehicles
Personal skills/attributes	<p>may include:</p> <ul style="list-style-type: none"> • technical and/ or specialist skills • business knowledge and skills • entrepreneurship and willingness to take risks
Business risks	<p>may be affected by and may include but are not restricted to:</p> <ul style="list-style-type: none"> • occupational health and safety and environmental considerations • relevant legislative requirements • security of investment • market competition • security of premises/ location • supply and demand • resources available
Resources	<p>may include:</p> <ul style="list-style-type: none"> • staff • money • time • equipment and space
Operational unit	<p>refers to:</p> <ul style="list-style-type: none"> • office location staffed with required personnel and equipped to service and support business • home-based site or other location such as leased or owned property
Legal documents	<p>may include:</p> <ul style="list-style-type: none"> • partnership agreements, constitution documents, statutory books for companies (Register of Members, Register of Directors and Minute Books), Certificate of Incorporation, Franchise Agreements and financial documentation, appropriate software for financial records

	<ul style="list-style-type: none"> recordkeeping including personnel, financial, taxation, OHS and environmental
Contracts with relevant people	<p>may include:</p> <ul style="list-style-type: none"> owners, suppliers, employees, landlords, agents, distributors, customers or any person with whom the business has, or seeks to have, a performance-based relationship

Evidence Guide	
Critical Aspects of Competence	<p>A person must be able to provide evidence:</p> <ul style="list-style-type: none"> that a business operation has been planned and implemented from initial research into feasibility of the business and completion of the plan, through to implementing the plan and commencing operations the ability to evaluate the results of research and assess the likely viability and practicability of a business opportunity, taking into account the current business/market climate and resources available
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> Federal and regional government legislative requirements affecting business operations, especially in regard to Occupational Health and Safety (OHS), Equal Employment Opportunity (EEO), industrial relations and anti-discrimination Technical or specialist skills relevant to the business operation Financing options Business systems and operations Relevant marketing, management, sales and financial concepts Methods for researching business opportunities Principles of risk management relevant to the business Methods of identifying relevant specialist services to complement the business Forms and administrative systems Services available and charges Planning and control systems (sales, Advertising and promotion, distribution and logistics Financial recording systems Legal rights and responsibilities Record keeping duties Operational factors relating to the business (provision of professional services, products)
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> Literacy skills to interpret legal requirements, company policies and procedures and immediate, day-to-day demands Marketing skills Business planning skills Entrepreneurial skills Problem-solving skills

	<ul style="list-style-type: none"> • OHS skills • Time management skills • Belief in services and products offered by the business • Communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback • Technical and analytical skills to interpret business documents, reports and financial statements and projections • Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities • Problem solving skills to develop contingency plans • Using computers and software packages to record and manage data and to produce reports • Literacy skills to enable interpretation of business information, numeracy skills for data analysis to aid research • Research skills to identify a business opportunity and to conduct a feasibility study • Analytical skills to assess personal attributes and to identify business risks • Observation skills for identifying appropriate people, resources and to monitor work
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Participate in Workplace Communication
Unit Code	IND BKG2 20 0613
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

Elements	Performance Criteria
1. Obtain and convey workplace information	<p>1.1 Specific and relevant information is accessed from appropriate sources.</p> <p>1.2 Effective questioning, active listening and speaking skills are used to gather and convey information.</p> <p>1.3 Appropriate medium is used to transfer information and ideas.</p> <p>1.4 Appropriate non- verbal communication is used.</p> <p>1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed.</p> <p>1.6 Defined workplace procedures for the location and storage of information are used.</p> <p>1.7 Personal interaction is carried out clearly and concisely.</p>
2. Participate in workplace meetings and discussions	<p>2.1 Team meetings are attended on time.</p> <p>2.2 Own opinions are clearly expressed and those of others are listened to without interruption.</p> <p>2.3 Meeting inputs are consistent with the meeting purpose and established protocols.</p> <p>2.4 Workplace interactions are conducted in a courteous manner.</p> <p>2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to.</p> <p>2.6 Meetings outcomes are interpreted and implemented.</p>
3. Complete relevant work related documents	<p>3.1 Range of forms relating to conditions of employment is completed accurately and legibly.</p> <p>3.2 Workplace data is recorded on standard workplace forms and documents.</p> <p>3.3 Basic mathematical processes are used for routine calculations.</p> <p>3.4 Errors in recording information on forms/ documents are identified and properly acted upon.</p> <p>3.5 Reporting requirements to supervisor are completed according to organizational guidelines.</p>

Variable	Range
Appropriate sources	<ul style="list-style-type: none"> • Team members • Suppliers • Trade personnel • Local government • Industry bodies
Medium	<ul style="list-style-type: none"> • Memorandum • Circular • Notice • Information discussion • Follow-up or verbal instructions • Face to face communication
Storage	<ul style="list-style-type: none"> • Manual filing system • Computer-based filing system
Forms	<ul style="list-style-type: none"> • Personnel forms, telephone message forms, safety reports
Workplace interactions	<ul style="list-style-type: none"> • Face to face • Telephone • Electronic and two way radio • Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
Protocols	<ul style="list-style-type: none"> • Observing meeting • Compliance with meeting decisions • Obeying meeting instructions

Evidence Guide	
Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Prepare written communication following standard format of the organization • Access information using communication equipment • Make use of relevant terms as an aid to transfer information effectively • Convey information effectively adopting the formal or informal communication
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Effective communication • Different modes of communication • Written communication • Organizational policies • Communication procedures and systems • Technology relevant to the enterprise and the individual's work responsibilities
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Follow simple spoken language • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents

	<ul style="list-style-type: none"> • Estimate, calculate and record routine workplace measures • Basic mathematical processes of addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace Requirements
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level II	
Unit Title	Standardize and Sustain 3S
Unit Code	IND BKG2 21 0613
Unit Descriptor	This unit of competence covers the knowledge, skills and attitudes required by worker to standardize and sustain 3S to his/her workplace. It covers responsibility for the day- to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	<p>1.1 Work instructions are used to determine job requirements, including method, material and equipment.</p> <p>1.2 Job specifications are read and interpreted following working manual.</p> <p>1.3 OHS requirements, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.</p> <p>1.4 Safety equipment and tools are identified and checked for safe and effective operation.</p> <p>1.5 Tools and equipment are prepared and used to implement 3S.</p>
2. Standardize 3S.	<p>2.1 Plan is prepared and used to standardize 3S activities.</p> <p>2.2 Tools and techniques to standardize 3S are prepared and implemented based on relevant procedures.</p> <p>2.3 Checklists are followed for standardize activities and reported to relevant personnel.</p> <p>2.4 The workplace is kept to the specified standard.</p> <p>2.5 Problems are avoided by standardizing activities.</p>
3. Sustain 3S.	<p>3.1 Plan is prepared and followed to standardize 3S activities.</p> <p>3.2 Tools and techniques to sustain 3S are discussed, prepared and implemented based on relevant procedures.</p> <p>3.3 Workplace is inspected regularly for compliance to specified standard and sustainability of 3S techniques.</p> <p>3.4 Workplace is cleaned up after completion of job and before commencing next job or end of shift.</p> <p>3.5 Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken.</p> <p>3.6 Improvements are recommended to lift the level of compliance in the workplace.</p>

	3.7 Checklists are followed to sustain activities and reported to relevant personnel.
	3.8 Problems are avoided by sustaining activities.

Variable	Range
OHS requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances. • Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices. • Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization. • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.
Safety equipment and tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • dust masks / goggles • glove • working cloth • first aid • safety shoes
Tools and equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • paint • hook • sticker • signboard • nails • shelves • chip wood • sponge • broom • pencil • shadow board/ tools board
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • 5S Job Cycle Charts • Visual 5S • The Five Minute 5S • Standardization level checklist

	<ul style="list-style-type: none"> • 5S checklist • The five Whys and one How approach(5W1H) • Suspension • Incorporation • Use Elimination
Relevant procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Assign 3S responsibilities • Integrate 3S duties into regular work duties • Check on 3S maintenance level • OHS measures such as signage, symbols / coding and labeling of workplace and equipment • Creating conditions to sustain your plans • Roles in implementation
Reporting	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal responses • data entry into enterprise database • brief written reports using enterprise report formats
Relevant personnel	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • supervisors, managers and quality managers • administrative, laboratory and production personnel • internal/external contractors, customers and suppliers
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • 5S slogans • 5S posters • 5S photo exhibits and storyboards • 5S newsletter • 5S maps • 5S pocket manuals • 5S department/benchmarking tours • 5S months • 5S audit • Awarding system • Big cleaning day • Patrolling system may include: <ul style="list-style-type: none"> ➤ Top management Patrol ➤ 5S Committee members and Promotion office Patrol ➤ Mutual patrol ➤ Self-patrol ➤ Checklist patrol ➤ Camera patrol

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> • Discuss the relationship between Kaizen elements. • Standardize and sustain 3S activities by applying appropriate tools and techniques.

Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Elements of Kaizen • Ways to improve Kaizen elements • Benefits of improving kaizen elements • Relationship between Kaizen elements • The fourth pillar of 5S • Benefits of standardizing and sustaining 3S • Procedures for standardizing and sustaining 3S activities • Tools and techniques to sustain 3S • Relevant Occupational Health and Safety (OHS) and environment requirements • Plan and report • Method of communication
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • improving Kaizen elements by applying 5S • standardizing and sustaining procedures and techniques to avoid problems • technical drawing • procedures to standardizing 3S activities • analyzing and preparing shop layout of the workplace • standardizing and sustaining checklists • preparing and implementing tools and techniques to sustain 3S • working with others • reading and interpreting documents • observing situations • solving problems by applying 5S • communication skills • preparing labels, slogans, etc. • gathering evidence by using different means • using Kaizen board properly in accordance the procedure • reporting activities and results using report formats
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting.</p>

NTQF Level III

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Occupational Standard: Baking Level III	
Unit Title	Set Up a Production or Packaging Line for Operation
Unit Code	IND BKG3 01 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up multiple production or packaging processes and/or conduct multiple process changeovers for operation by others.

Element of	Performance Criteria
1. Prepare for line setup	<p>1.1. Materials are confirmed and available to meet production requirements.</p> <p>1.2. Equipment and related accessories are confirmed, available and fit for use to meet production requirements.</p> <p>1.3. Tools and equipment required for line setup are available, operational and fit for use to meet operational requirements.</p> <p>1.4. Processing parameters and settings are identified to meet production or packaging requirements.</p>
2. Set up the line for operation	<p>2.1. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>2.2. Equipment is inspected to confirm condition as per operational requirements.</p> <p>2.3. Machine settings are selected or adjusted as required to meet safety and production requirements.</p> <p>2.4. Processing or packaging parameters are entered as required to meet production requirements.</p> <p>2.5. Equipment performance is checked and adjusted as required.</p> <p>2.6. Pre-start checks are carried out as required by workplace policies and procedures.</p> <p>2.7. Line setup is completed to match production or packaging schedule and operating requirements.</p> <p>2.8. The line is ready and safe to operate and any maintenance requirements are reported according to workplace information reporting requirements.</p> <p>2.9. Work is conducted in accordance with workplace environmental guidelines.</p> <p>2.10. Relevant personnel are notified of setup completion.</p>

Variables	Range
Equipment adjustment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> limited use of hand tools, such as Allen keys and screwdrivers, within level of responsibility

Confirming cleaning requirements and status	May include but not limited to: <ul style="list-style-type: none"> • accessing cleaning records
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • standard forms and reports

Evidence Guide	
Critical aspects of competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for production to determine cleaning, maintenance and operation readiness • determine production parameters and requirements • set up line according to production requirements • take corrective action in response to typical faults and inconsistencies • complete workplace records and communicate line status with other personnel as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures.
Underpinning Knowledge	Demonstrate Knowledge of: <ul style="list-style-type: none"> • basic operating principles of equipment and related accessories, including equipment adjustment points, range and location/alignment requirements of sensors and related feedback instruments, and status and purpose of guards • operating capacities of equipment used in the work area, such as different types of equipment and/or components as required by processing operations • nature of setup/changeover requirements, such as product compatibility and related cleaning requirements, impact of variation in materials or product on setup requirements, equipment and/or attachment changeovers related to given products

	<ul style="list-style-type: none"> • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • pre-start checks required by setup/changeover • related processes and personnel dependent on line setup, and communication responsibilities • isolation, lock out and tag out procedures and responsibilities • Occupational Health and Safety (OHS) hazards and controls • procedures and responsibility for reporting equipment performance information • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • routine maintenance requirements and procedures where relevant
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access production/packing schedule and related information to identify line setup/changeover requirements, such as checking product sequencing and compatibility, confirming that the required cleaning and/or sanitation has occurred and required packaging components and consumables are available as appropriate • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary equipment and related attachments, materials and services for production • confirm supply of necessary equipment and services to carry out setup operations • set and/or adjust equipment to meet production/packaging requirements, including selecting the required parameters or equipment settings, and changing processing set points as required • position safety guards and cancel isolation/lockouts ready for operation • confirm that sensors and related feedback instruments are correctly positioned and operational • operate equipment to confirm equipment setup and make final adjustments as required • time setup activities to meet production requirements • advise affected work areas/personnel of completion of setup • maintain work area to meet housekeeping standards • load and/or position materials/ingredients/product and/or packaging consumables according to enterprise procedures • use the control panel/system to set and adjust equipment components according to enterprise procedures • conduct routine maintenance according to enterprise procedures

	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Operate Interrelated Processes in a Production System
Unit Code	IND BKG3 02 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a production system.

Elements	Performance Criteria
1. Prepare the production system for operation	<p>1.1. Equipment, materials and services are confirmed and available to meet production requirements.</p> <p>1.2. Cleaning requirements and equipment status are identified and confirmed.</p> <p>1.3. Machine settings are selected or adjusted as required to meet safety and production requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet production requirements.</p> <p>1.5. Materials, ingredients and/or product are loaded or positioned as required to meet production requirements.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p> <p>1.7. Equipment performance is checked and adjusted as required.</p> <p>1.8. Equipment is ready and safe to operate.</p>
2. Operate and monitor the production system	<p>2.1. The system is started up and operated according to company policies and procedures.</p> <p>2.2. System equipment components are monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace information reporting requirements.</p> <p>2.4. The production system is monitored to confirm that specifications are met.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p>

3. Hand over production system operation	<p>3.1. Workplace records are maintained according to workplace information recording requirements.</p> <p>3.2. Handover is carried out according to workplace procedures.</p> <p>3.3. Process operators are aware of system and related equipment status at completion of handover.</p>
4. Shut down the production system	<p>4.1. The appropriate shutdown procedure is identified.</p> <p>4.2. The system is shut down according to workplace procedures.</p> <p>4.3. Maintenance requirements are identified and reported.</p>
5. Contribute to continuous improvement of the production system	<p>5.1. System performance is reviewed against output plan/targets.</p> <p>5.2. Opportunities for system improvement are identified and investigated.</p> <p>5.3. Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures.</p>

Variable	Range
Confirming cleaning requirements and status	<p>May include but not limited to:</p> <ul style="list-style-type: none"> accessing cleaning records
Systems	<p>May include but not limited to:</p> <ul style="list-style-type: none"> a series of interrelated processes that must be coordinated and concurrently operated to produce the required outcome
System operation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> coordination of operators of system components
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Operation and monitoring of equipment and system processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the use of control panels and systems
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions performance records and reports

Handovers	Handovers may be done: <ul style="list-style-type: none"> in person or via recording/communication systems according to workplace arrangements
Shutdown procedures	May include but not limited to: <ul style="list-style-type: none"> cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> conduct pre-start checks on production system components confirm machine setup is ready to achieve production requirements correctly use required personal protective equipment start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes identify system problems and take corrective action conduct operational handovers shut down system identify and investigate opportunities for operational improvements within areas of responsibility complete workplace records as required apply safe work practices and identify OHS hazards and controls safely shut down equipment Apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> purpose and basic principles of the production system, including the system process flow, the interrelationships of each process to identify the impact of variation on related processes, and optimization options basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations related systems and responsibilities for interaction, such as related production systems, services supply, packaging/warehousing, maintenance, laboratory/quality assurance and planning and scheduling product characteristics and common types of variation in materials and/or ingredients used, including the effect of variation on each stage of the system and scope to adjust or correct

	<ul style="list-style-type: none"> • typical production related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials, incorrect settings and poor operator control • relevant procedures, specifications and operating parameters for the system and the individual processes • isolation, lock out and tag out procedures and responsibilities • hazards, risks, controls and methods for monitoring processes within the system, including Occupational Health and Safety (OHS), food safety, quality and environmental hazards and risks • workplace system and approach to equipment maintenance • process improvement procedures and related consultative arrangements • troubleshooting procedures and problem solving techniques • communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues • procedures and responsibility for reporting production and performance information
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access production schedule and related information to identify system output and operating requirements, such as planning daily production schedules and/or modifying plans to respond to operating conditions and customer requirements • liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements • confirm supply of necessary equipment and related attachments, materials and services • select, fit and use personal protective clothing and/or equipment • set and/or adjust equipment to meet process output requirements, including inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for processing requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks) • load and/or position materials, ingredients and/or product as required

	<ul style="list-style-type: none"> • operate and monitor the production system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures • monitor materials flow and work-in-progress through the system • confirm that the system operates within specified parameters and inspection/ control points are monitored • determine responses to out-of-specification results or non-conformance within level of responsibility • monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems • investigate, resolve and/or report problems and faults • plan scheduled events to minimize disruption to production • conduct/coordinate product or batch changeovers • conduct/coordinate shift handovers • review and maintain procedures to support system improvements • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Operate Interrelated Processes in a Packaging System
Unit Code	IND BKG3 03 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate and adjust interrelated processes in a packaging system.

Elements	Performance Criteria
1. Prepare the packaging system for operation	<p>1.1. Equipment, materials and services are confirmed and available to meet packaging requirements.</p> <p>1.2. Cleaning requirements and equipment status is identified and confirmed.</p> <p>1.3. Machine settings are selected or adjusted as required to meet safety and production requirements.</p> <p>1.4. Operating parameters are entered as required to meet production requirements.</p> <p>1.5. Product and/or packaging components and consumables are loaded or positioned as required to meet packaging requirements.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p> <p>1.7. Equipment performance is checked and adjusted as required</p> <p>1.8. Equipment is ready and safe to operate.</p>
2. Operate and monitor the packaging system	<p>2.1. The system is started up and operated according to company policies and procedures.</p> <p>2.2. System equipment components are monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace information reporting requirements.</p> <p>2.4. The system is monitored to confirm that packaging specifications are met.</p> <p>2.5. Out-of-specification product/packaging outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p>

3. Hand over packaging system operation	<p>3.1. Workplace records are maintained according to workplace recording requirements.</p> <p>3.2. Handover is carried out according to workplace procedures.</p> <p>3.3. Process operators are aware of system and related equipment status at completion of handover.</p>
4. Shut down the packaging system	<p>4.1. The appropriate shutdown procedure is identified.</p> <p>4.2. The system is shut down according to workplace procedures.</p> <p>4.3. Maintenance requirements are identified and reported.</p>
5. Contribute to continuous improvement of the system	<p>5.1. System performance is reviewed against output plan/targets.</p> <p>5.2. Opportunities for system improvement are identified and investigated.</p> <p>5.3. Proposals for improvement are developed and implemented within company planning arrangements, authority levels and according to company procedures.</p>

Variable	Range
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Operation and monitoring of equipment and system processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the use of control panels and systems
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions performance records and reports
System operation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> coordination of operators of system components
Handovers	<p>May include but not limited to:</p> <ul style="list-style-type: none"> in person or via recording/communication systems according to workplace arrangements
Shutdown procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

Evidence Guide			
Critical Aspect of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on packaging system components • confirm machine set up is ready to achieve packing requirements • correctly use required personal protective equipment • start, operate, monitor and adjust process equipment throughout the system to achieve required quality outcomes • identify system problems and take corrective action • conduct operational handovers • shut down system • identify and investigate opportunities for operational improvements within areas of responsibility • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • Apply food safety procedures. 		
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • purpose and basic principles of the packaging system, including the process flow and the interrelationships of each previous processes that can affect packaging outcomes, packaging technology, and packaging equipment components • basic operating principles of equipment and related accessories used by the system, including equipment adjustment points, status and purpose of guards, and range and location/alignment requirements of sensors and related feedback instruments • operating capacities of equipment used in the system, such as different types of equipment and/or components as required by processing/packaging operations • related systems and responsibilities for interaction, such as related production and further packaging/storage stages, services supply, maintenance, laboratory/quality assurance and planning and scheduling • technical knowledge of product/packaging characteristics and the main factors that impact on shelf-life • typical packaging related problems, including equipment faults, common causes and warning signs, incorrect or poor supply of materials and finished product, incorrect settings and poor operator control • relevant procedures, specifications and operating parameters for the system and the individual processes • isolation, lock out and tag out procedures and responsibilities • hazards, risks, controls and methods for monitoring processes within the system, including OHS, food safety, quality and environmental hazards and risks 		
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	<ul style="list-style-type: none"> • workplace system and approach to equipment maintenance • process improvement procedures and related consultative arrangements • troubleshooting procedures and problem solving techniques • communication responsibilities to inform related work areas/support functions and other shifts of operational status and production issues • procedures and responsibility for reporting production and performance information
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Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access production/packaging schedule and related information to identify packaging output and operating requirements, such as establishing daily packaging priorities and/or modifying plans to respond to customer requirements • liaise with relevant work areas to confirm and/or secure necessary materials, services, equipment and labour to meet production requirements • confirm supply of necessary equipment and related attachments, materials and services • select, fit and use personal protective clothing and/or equipment • set and/or adjust equipment to meet packaging requirements, such as inspecting equipment condition to identify any signs of wear, confirming selection of appropriate settings and/or related parameters, ensuring that isolation or lock outs are cancelled as required, confirming that equipment is clean and correctly configured for packaging requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational (checks may be done by the system operator or involve observing/supporting others setting and adjusting equipment and conducting pre-start checks) • load and/or position product, packaging components and consumables as required • operate and monitor the packaging system, such as use of a process control system and/or observing/supporting others to follow correct operating procedures • monitor materials flow and work-in-progress to and from the packaging system • confirm that the packaging system operates within specified parameters and inspection/control points are monitored • determine responses to out-of-specification packaging or non-conformance within level of responsibility • monitor operating efficiencies of the system, including recognition of signs and symptoms of faulty equipment and early warning signs of other potential problems
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	<ul style="list-style-type: none"> • investigate, resolve and/or report problems and faults • plan scheduled events to minimize disruption to production • conduct/coordinate product/packaging changeovers • conduct/coordinate shift handovers • review and maintain procedures to support system improvements • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Operate a Dough Mixing Process
Unit Code	IND BKG3 04 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down the process used to make up dough.

Elements	Performance Criteria
1. Prepare the dough making equipment and process for operation	<p>1.1. Ingredients are weighed or measured to meet recipe requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed as per workplace policies and procedures.</p> <p>1.3. Materials handling, mixing/blending equipment and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as per operational requirements.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the dough mixing process	<p>2.1. The process is started and operated according to workplace procedures.</p> <p>2.2. Ingredients are introduced to the mixing process in correct sequence and quantity.</p> <p>2.3. Equipment is monitored to identify variation in operating conditions.</p> <p>2.4. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.5. The process is monitored to confirm that dough meets specifications.</p> <p>2.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.7. The finished dough is transferred to required location.</p> <p>2.8. The work area is maintained according to housekeeping standards.</p>

	<p>2.9. Work is conducted in accordance with workplace environmental guidelines.</p> <p>2.10. Workplace records are maintained according to workplace information recording requirements.</p>
3. Shut down the process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down and cleaned according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • mixers • scales • materials handling equipment • Materials are typically delivered to the mixer via: <ul style="list-style-type: none"> • operation of bulk materials handling systems • Non-bulk ingredients may be: <ul style="list-style-type: none"> • dosed automatically or manually loaded
Operation of equipment and processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the use of process control panels and systems
Services	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • power • water • compressed and instrumentation air • refrigerant
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Standard Operating Procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports

Evidence Guide			
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for mixing dough • start, operate, monitor and adjust process equipment to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures to work practices. 		
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • purpose and basic principles of the dough making process, including the components of wheat, flour types and grades relevant to products produced, yeast activity and dough development • basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation • services required and action to take if services are not available • the flow of the dough making process, including the stages and changes which occur during baking, and the effect of outputs on downstream processes • ingredient characteristics, and condition requirements and purpose in the dough and the finished product • significance of factors, such as dough temperature, development, water addition/temperature, yeast activity and consistency of dough • required characteristics of dough and effect of dough characteristics/variation on the final product • quality requirements of materials and effect of variation in ingredient quality on the dough, including the impact of variation in flour quality • stock management procedures, including stock rotation and use-by codes • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the dough making process, such as inspecting, measuring and testing as required by the process 		
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	<ul style="list-style-type: none"> • inspection or test points (control points) in the dough making process and the related procedures and recording requirements • ingredient/materials handling and storage requirements • contamination/food safety risks associated with the dough making process and related control measures • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • requirements of different shutdowns as appropriate to the dough making process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • product/process changeover procedures and responsibilities • procedures and responsibility for reporting production and performance information • cleaning and sanitation procedures • environmental issues and controls relevant to the dough making process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant 		
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify recipe and batch requirements • select, fit and use personal protective clothing and/or equipment • confirm supply and condition of necessary ingredients, such as flour and supply of services • load materials in correct quantities and sequence according to company procedures • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lock outs as required, confirming that related equipment is clean and correctly configured for dough making requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • confirm settings, such as: <ul style="list-style-type: none"> ➤ mixing rate ➤ mixing time/work input ➤ ice/water requirements 		
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	<ul style="list-style-type: none"> ➤ water temperature ➤ speed ➤ flour temperature ➤ cooling ➤ vacuum delay and level ➤ slurry addition • start, operate, monitor and adjust dough making equipment to achieve required outcomes, including monitoring control points and conducting inspections as required to confirm process remains within specification, such as: <ul style="list-style-type: none"> ➤ dough consistency ➤ temperature ➤ development ➤ timeliness • monitor supply and flow of materials to and from the dough making process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • demonstrate batch/product changeovers • follow isolation and lock out/tag out procedures as required to take dough making process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • complete workplace records as required • clean and sanitise equipment • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce 		
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.		
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning 		
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.		
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Occupational Standard: Baking Level III	
Unit Title	Process Dough
Unit Code	IND BKG3 05 0613
Descriptor	This unit of competency covers the skills and knowledge required to divide, shape and mould dough to final shape, place dough in tins or on baking surfaces and conduct final prove in an in-store bakery or retail banking environment.

Elements	Performance Criteria
1. Scale and mould dough	1.1. Dough is scaled to meet production requirements. 1.2. Scaled dough meets weight requirements. 1.3. Dough is molded to provide initial shape. 1.4. Dough is laminated, chilled or filled to suit product specification. 1.5. Unacceptable scaled and molded dough is identified, removed or rectified and/or reported.
2. Mould dough and divide to meet product requirements	2.1. Dough is molded to final shape. 2.2. Dough is placed in tins or on baking surfaces as required. 2.3. Dough meets production specifications. 2.4. Unacceptable final proved dough is identified, removed or rectified and/or reported.
3. Clean equipment	3.1. Equipment is cleaned to meet production and hygiene requirements. 3.2. Waste is disposed of according to workplace policies and procedures . 3.3. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Dough	May include but not limited to: <ul style="list-style-type: none"> Dough may be manually or mechanically molded or shaped using molding and rounding equipment
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity

Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules • recipe instructions
Typical ingredients	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • flour • water • salt • yeast • shortenings • improvers • additional ingredients, such as rye flour, sours, fruit, spices, grains and fiber
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • mixers • sieves • weighing • metering • lifting equipment • final prover
Final proof	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Final proof may be wet or dry
Applying finishing	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • methods, such as dusting, cutting, spraying and applying toppings
Baking surfaces	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • tins • slippers • trays and sole of the oven <p>Confirming that tins/trays are ready for use involves:</p> <ul style="list-style-type: none"> • checking that tins/trays are greased and prepared to the required standard and that hygiene and sanitation standards are met

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • scale and mould dough according to quality standards • use scales and determine weights accurately • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • clean equipment • apply food safety procedures.

Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • the effect of dough shape/size on the final product • purpose and time required to allow dough to develop • methods used to confirm accuracy of measuring equipment used • required characteristics of proved dough, such as size, height and appearance • causes of variation and corrective action required • settings, operational requirements and safety features of dividing and rounding equipment • requirements of the final proof process, including the importance of relative humidity and temperature on proving stage • purpose and procedures for conducting a wet or dry prove • molding techniques to achieve required product shape for untinned bread products • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning and procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify recipe requirements • confirm the required quantity of dough is available • divide dough into pieces of the required weight • round or mould dough to meet intermediate prove weight requirements • allow dough to develop for the required time (intermediate prove) • monitor size and shape of dough and skin formation on dough during intermediate prove • identify, correct and/or remove unacceptable sized/shaped dough • confirm that tins and/or baking surfaces are available and ready for use • carry out final mould (this may be done manually or by using molding and rounding equipment) • tin or place dough on baking surfaces as required • conduct final prove of dough (prover settings are set to allow the required development/proving time and conditions, such as temperature and humidity) • prepare dough for baking, such as applying finishing, positioning lids on tins according to product requirements and shaping specialty breads • monitor dough volume and maturity • visually check the appearance of finished products and confirm that finishing are applied to meet quality requirements

	<ul style="list-style-type: none"> • identify, correct and/or remove unacceptable sized/shaped dough • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Produce Sponge, Cake and Cookie Batter
Unit Code	IND BKG3 06 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to produce a range of cake, sponge and cookie batters in an in-store bakery or retail banking environment.

Elements	Performance Criteria
1. Prepare sponge, cake and cookie batter	<p>1.1. Ingredients are confirmed and available to meet product requirements.</p> <p>1.2. Ingredients are weighed and/or measured to meet recipe requirements.</p> <p>1.3. Equipment is checked to confirm readiness for use.</p> <p>1.4. Mixing equipment is set and operated to meet recipe requirements.</p> <p>1.5. Ingredients are loaded into the mixer to meet recipe requirements.</p> <p>1.6. Batter is made to meet specifications.</p> <p>1.7. Prepared batter is deposited into tins/onto papers.</p>
2. Clean equipment	<p>2.1. Equipment is cleaned to meet production and hygiene requirements.</p> <p>2.2. Waste is disposed of according to workplace procedures.</p> <p>2.3. The work area is maintained according to housekeeping standards.</p> <p>2.4. Work is conducted in accordance with workplace environmental guidelines.</p>

Variable	Range
Typical ingredients	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • flour • sugar • shortenings and margarines • eggs • fruit and flavor enhancing ingredients
Batters	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • prepared from scratch or by using pre-mixes
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • tins and trays • mixers • sieves

	<ul style="list-style-type: none"> • hydraulic lifting • depositing equipment
Confirming equipment status	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place, equipment is operational and required attachments are fitted. In the case of sponge production, this includes ensuring bowls and utensils are free of all fat residues
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules • recipe instructions

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • plan and prepare ingredients, equipment and processes required for batter • combine and process ingredients according to requirements for type of batter • assess batter outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • clean equipment • apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • basic principles of cake, sponge and cookie making • ingredient characteristics and purpose in the final product, including flour types, sugar grades, shortening and emulsifiers, and fresh and/or pulp egg, as well as pre-mix composition, where required • methods used to confirm accuracy of measuring equipment used • ingredient storage requirements

	<ul style="list-style-type: none"> • methods used to prepare cake batter • physical and chemical methods used to aerate batter • significance of factors, such as temperature of batter on final product • factors affecting sponge-making • required characteristics of batter • process requirements, such as: <ul style="list-style-type: none"> • mixing times and speeds • batter specifications • settings, operating requirements and safety features of equipment used • methods used to deposit batter including use of release agents as required • causes of variation and corrective action required • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning and procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify recipe requirements • confirm condition, type, quality and quantity of ingredients, including selecting shortening type to meet recipe and ambient temperature requirements • weigh, scale or meter ingredients as required • calculate yield based on given batch weight and/or main ingredient weight according to workplace practices • confirm equipment status and condition • transfer ingredients to the mixer in the required sequence • set mixing equipment to meet production requirements, such as: <ul style="list-style-type: none"> ➤ selecting and fitting appropriate attachments ➤ setting mixer times and speeds ➤ operate and monitor the mixing process, such as monitoring: <ul style="list-style-type: none"> ➤ mixing time and speed ➤ ingredient and finished batter temperature ➤ batter consistency, appearance and texture ➤ identify batter that does not meet quality requirements and take necessary corrective action • prepare tins/trays, liners and papers as required • deposit, extrude or spread batter to meet product and volume/weight requirements • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards

	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Form and Fill Pastry Products
Unit Code	IND BKG3 07 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to form pastry and deposit fillings into a pastry shell or onto a pastry sheet which may then be topped according to product requirements.

Elements	Performance Criteria
1. Prepare to fill and form pastry products	<p>1.1. Pastry and fillings are confirmed and available to meet production requirements.</p> <p>1.2. Forming and filling equipment and/or utensils are available and ready for use.</p> <p>1.3. Equipment is checked to confirm readiness for use.</p>
2. Form and fill pastry products	<p>2.1. Pastry is rolled and shaped to meet product requirements.</p> <p>2.2. Pastry is filled to meet product requirements.</p> <p>2.3. Tops and/or finishes are applied as required.</p> <p>2.4. Filled pastry product meets food safety and quality requirements.</p> <p>2.5. Unacceptable product is identified, rectified or reported.</p>
3. Clean equipment	<p>3.1. Equipment is cleaned to meet production and hygiene requirements.</p> <p>3.2. The work area is maintained according to housekeeping standards.</p> <p>3.3. Work is conducted in accordance with workplace environmental guidelines.</p>

Variable	Range
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • moulds • tins and trays • depositing equipment
Processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • sweet or savoury • hot or cold <p>Milk and egg washes may be:</p> <ul style="list-style-type: none"> • applied prior to baking <p>Glazes and sugar may be:</p> <ul style="list-style-type: none"> • applied after baking
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> verbal or written operating procedures specifications production schedules recipe instructions

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> conduct pre-start checks on equipment and ingredients used for forming and filling pastry form and fill pastry according to quality standards take corrective action in response to typical faults and inconsistencies apply safe work practices and identify OHS hazards and controls clean equipment Apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> basic principles of pastry forming and filling acceptable standards for equipment/utensils used, including cleaning requirements and signs of wear or unacceptable damage quality requirements of filled pastry products, such as appearance, weight, and seal as required by product types of pastry suitable for use as tops and bottoms and in different products procedures for inclusion of rework, such as appropriate uses of rework; maximum number of batches that can contain rework before scrap is discarded, and importance of ensuring rework pastry is not contaminated by filling materials, other pastry types or other forms of contamination procedure for preparing and applying washes and glazes as required for product the effect of variables, such as filling temperature on finished product, and product temperature on glazing application settings, operating requirements and safety features of equipment used inspections/control points used to confirm that product meets quality requirements and related monitoring requirements causes of variation and corrective action required Occupational Health and Safety (OHS) hazards and controls waste handling and cleaning requirements and procedures

Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify production requirements • confirm that pastry types and fillings match product requirements • confirm that equipment is clean and in operating order, including confirming that trays and tins are available as required • prepare pastry and fillings for use, such as: <ul style="list-style-type: none"> • rolling pastry • loading fillings into hopper and setting automatic dispensing equipment • bringing fillings to required temperature • form product shape • dispense fillings within acceptable volume, weight and placement parameters • apply tops, coding and/or toppings according to product requirements • trim pastry keeping bottom and top pastry separate • include reworked pastry according to workplace procedures • monitor the forming and filling process to ensure that quality standards are met, such as monitoring: <ul style="list-style-type: none"> • pastry thickness • alignment of deposited filling or accuracy of manual positioning • amount and/or rate of filling deposited • product weight • enclosure of pastry product by forming, rolling or covering with a pastry top to form seal • application of washes (before baking) or glaze and toppings (after baking) • appearance (size and shape) • take corrective action so that product quality standards are met • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Decorate Cakes and Cookies
Unit Code	IND BKG3 08 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to prepare and apply decorating materials, such as fondants and ganache, and uses a range of typical decorating techniques.

Elements	Performance Criteria
1. Prepare to decorate cakes and cookies	1.1. Ingredients are confirmed and available to meet finishing requirements. 1.2. Equipment is checked to confirm readiness for use. 1.3. Decorations and decorating materials are available to meet product decorating requirements.
2. Decorate products to meet quality and customer requirements	2.1. Decorating materials are applied to meet presentation requirements. 2.2. Finished product meets presentation requirements. 2.3. Unacceptable product is identified, rectified or reported. 2.4. Products are assembled to meet customer and quality requirements. 2.5. Work is conducted in accordance with workplace environmental guidelines. 2.6. Workplace records are maintained according to workplace recording requirements.

Variable	Range
Equipment	May include but not limited to: <ul style="list-style-type: none"> • piping bags and nozzles • mixing bowls • application utensils, such as spatulas and palette knives
Decorating materials	May include but not limited to: <ul style="list-style-type: none"> • cake ornaments and decorations • fresh, mock or butter cream • fudge and other icing sugar • fondant • chocolate • glazes • fruit • custard • mousses and similar fillings and coverings • Decorating materials may be prepared from scratch or purchased for use

Typical decorating techniques	May include but not limited to: <ul style="list-style-type: none"> • flooding, icing or masking cakes • finishing cake sides • piping to produce decorative finishes and write simple messages • placement or arrangement of ornaments and decorations • It may also include applying the final layer of materials to finish a product
Decorating	May include but not limited to: <ul style="list-style-type: none"> • Decorating is done within design specification parameters
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules • recipe instructions

Evidence Guide	
Critical aspects of Competence	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> • plan and prepare ingredients, equipment and processes required for decoration • combine and process ingredients according to requirements for decoration • decorate to achieve required quality outcomes • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> • methods used to prepare a range of decorating materials, including preparation of ganache and fondants • characteristics, role and storage requirements of materials used • required characteristics of prepared decorating materials • methods used to prepare powdered and liquid colors/flavors'

	<ul style="list-style-type: none"> • methods used to confirm accuracy of measuring equipment used • board types, sizes and appropriate medium to secure cake to cake base • acceptable standards for equipment/utensils used, including cleaning requirements and signs of wear or unacceptable damage (where measuring equipment is used, it may also include procedures, such as tarring of scales) • decorating techniques, such as flooding, icing or masking, piping of simple messages and decorative finishes, and placement of ornaments and decorations • the effect of variables, such as the temperature of decorating materials and application time on the finished product • product quality, presentation and storage requirements, such as refrigeration, freezing and shelf-life • inspections/control points used to confirm that product meets quality requirements and related monitoring requirements • causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements and procedures
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • confirm customer requirements • select and/or follow appropriate decorating instructions • confirm that the required type and quantity of cake ornaments, decorations and decorating materials and/or ingredients are available • confirm that required equipment is clean and ready for use • mix or prepare decorating materials as required • select and mount cakes on appropriate cake bases • demonstrate a range of decorating techniques to suit the product - at a minimum, decorating techniques will include: <ul style="list-style-type: none"> • flooding, icing or masking cakes • writing simple messages • using more than one decorating material to achieve the required finish • applying decorating materials to cover cakes in a timely manner to achieve an even, clean finish as required by product and customer requirements • identify and take corrective action to ensure that finished product meets quality standards • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • temper chocolate according to enterprise procedures

	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Bake Sponges, Cakes and Cookies
Unit Code	IND BKG3 09 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to bake sponges, cakes and cookies in an in-store bakery or retail banking environment.

Elements	Performance Criteria
1. Prepare to bake product	1.1. Baking parameters are selected as required to meet safety and baking requirements. 1.2. Batter is available and tinned or deposited ready for baking.
2. Bake products	2.1. Ovens are operated to meet required output. 2.2. Baked product meets food safety and quality requirements. 2.3. Unacceptable baked product is identified, rectified and/or reported. 2.4. The work area is maintained according to housekeeping standards. 2.5. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • verbal or written instructions • Standard Operating Procedures (SOPs) • specifications • production schedules • recipe instructions
Equipment	May include but not limited to: <ul style="list-style-type: none"> • topping equipment • oven loading equipment • ovens • cooling racks

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • conduct pre-start checks on ovens used for baking

	<ul style="list-style-type: none"> • start, operate, monitor and adjust ovens to achieve required quality outcomes • assess product outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • safely shut down ovens • Apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • basic principles of cake, sponge and cookie production • effect of ingredients on baking process and final product • cooling methods • required characteristics of final product • process requirements, such as: <ul style="list-style-type: none"> ➢ baking times and temperatures ➢ oven settings ➢ settings, operating requirements and safety features of equipment used • product presentation and storage requirements, such as refrigeration and shelf-life • product cooling and handling methods to preserve product quality • control points and related monitoring requirements • causes of variation and corrective action required • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements • finishing baked products where relevant • decorating cakes and cookies where relevant
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify baking requirements • confirm product is correctly deposited and ready for baking • select appropriate oven settings and start up the oven, including setting time and temperature controls • load product, including positioning product on trays, slips or belts with correct spacing • monitor baking process, including: <ul style="list-style-type: none"> ➢ color ➢ appearance/shape ➢ time • remove baked products from oven and cool, turn out and present finished product, including placing on cooling racks • take corrective action as required to maintain quality of product • maintain workplace records as required • maintain work area to meet housekeeping standards • finish products according to enterprise procedures • decorate cakes and cookies according to enterprise procedures

	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Bake Pastry Products
Unit Code	IND BKG3 10 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to bake pastry in an in-store bakery or retail banking environment.

Element	Performance Criteria
1. Prepare to bake pastry products	<p>1.1. Baking parameters are selected as required to meet safety and baking requirements.</p> <p>1.2. Product is prepared, finished and arranged to meet quality and product requirements.</p>
2. Bake products	<p>2.1. Ovens are operated to meet required output.</p> <p>2.2. Baked product meets food safety and quality requirements.</p> <p>2.3. Unacceptable baked product is identified, rectified and/or reported.</p> <p>2.4. The work area is maintained according to housekeeping standards.</p> <p>2.5. Work is conducted in accordance with workplace environmental guidelines.</p>

Variable	Range
Product	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Product may be prepared fresh or frozen
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> verbal or written instructions Standard Operating Procedures (SOPs) specifications production schedules and recipe instructions
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> topping equipment oven loading equipment ovens and cooling racks

Evidence Guide	
Critical aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> conduct pre-start checks on ovens used for baking

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	<ul style="list-style-type: none"> • start, operate, monitor and adjust ovens to achieve required quality outcomes • assess product outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • safely shut down ovens • apply food safety procedures 		
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • changes that occur to the product during baking • how pastry product characteristics affect the final product • time required for conditioning products • the effect of variables, such as temperature of fillings, time, temperature and humidity during the baking process • quality characteristics of the final product • presentation and/or storage requirements for baked product, such as refrigeration, freezing and shelf-life • settings, operating requirements and safety features of equipment used • causes of variation and corrective action required • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements 		
Underpinning Skills	<p>Demonstrates skills in:</p> <ul style="list-style-type: none"> • changes that occur to the product during baking • how pastry product characteristics affect the final product • time required for conditioning products • the effect of variables, such as temperature of fillings, time, temperature and humidity during the baking process • quality characteristics of the final product • presentation and/or storage requirements for baked product, such as refrigeration, freezing and shelf-life • settings, operating requirements and safety features of equipment used • causes of variation and corrective action required • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements 		
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.		
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning 		
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.		
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Occupational Standard: Baking Level III	
Unit Title	Store, Handle and Use Frozen Dough
Unit Code	IND BKG3 11 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to thaw and handle frozen dough in the production of bread and other yeast-raised products.

Elements	Performance Criteria
1. Store frozen dough	<p>1.1. Storage conditions required to retain quality characteristics of frozen dough are identified and monitored.</p> <p>1.2. Consequences of inconsistent temperature and moisture controls for frozen dough are identified.</p> <p>1.3. The cold chain is monitored to ensure that product meets food safety and quality requirements.</p>
2. Thaw frozen dough	<p>2.1. Dough is thawed at a rate and conditions required to maintain quality.</p> <p>2.2. Impact of thawing rate on yeast and/or laminated products are identified.</p> <p>2.3. Thawed dough meets food safety and quality requirements.</p> <p>2.4. Unacceptable dough is identified, rectified and/or removed.</p> <p>2.5. Waste is disposed of according to workplace procedures.</p> <p>2.6. Housekeeping standards are maintained in the workplace.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p>
3. Use thawed dough in baked products	<p>3.1. Dough is proved and/or conditioned to prepare for use.</p> <p>3.2. Dough is baked in accordance to product specifications and requirements.</p> <p>3.3. Implications of using frozen dough on proving and baking are identified and managed in the baking process.</p> <p>3.4. Any quality inconsistencies in production processes and the final product are identified and acted on.</p>

Variable	Range
Dough	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Dough that is frozen may be either made up or proved dough. Frozen dough that has not been proved requires an additional step of conditioning before baking. This does not apply to prove dough
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> verbal or written instructions Standard Operating Procedures (SOPs) specifications production schedules and recipe instructions
Freezing equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> storage freezers

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> store frozen dough to maintain quality standards identify the implications of using frozen dough for the baking process and the final product thaw and prepare dough for use use frozen dough in baking products assess outcomes against quality standards take corrective action in response to typical faults and inconsistencies apply safe work practices and identify OHS hazards and controls apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> basic principles of freezing dough, including what occurs to dough during snap freezing and storage stages basic understanding of the freezing equipment used, freezing capacity and the effect of freezing method on product different handling requirements of made up and proved dough to preserve the dough structure purpose and characteristics of packaging liners used to pack frozen dough procedures for maintaining temperature parameters of freezing equipment, including procedures to be followed when loading and removing dough to preserve temperature conditions storage patterns to make efficient use of space, allow for product rotation and minimize temperature fluctuations food safety issues that can result from temperature abuse the significance of timeliness when both freezing and thawing dough optimal storage times the significance of variables such as dough type and size on freezing and thawing processes

	<ul style="list-style-type: none"> • procedures for efficiently thawing frozen product and the consequences of slow thawing • the effect of freezing/thawing on the quality of the final product • inspections/control points used to confirm that product meets quality requirements and related monitoring requirements • causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements and procedures
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access freezing requirements for dough type • store frozen dough • monitor equipment to confirm that freezing parameters are met • thaw dough as required for use • maintain workplace records as required • maintain work area to meet housekeeping standards • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Operate a Proving Process
Unit Code	IND BKG3 12 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to set up, operate, adjust and shut down the process used to carry out the proving of dough.

Elements	Performance Criteria
1. Prepare the proving equipment and process for operation	<p>1.1. Dough is supplied to the final prover to meet production/batch requirements.</p> <p>1.2. Cleaning and maintenance requirements and status are identified and confirmed.</p> <p>1.3. Machine components and related attachments are fitted and adjusted to meet operating requirements.</p> <p>1.4. Processing/operating parameters are entered as required to meet safety and production requirements.</p> <p>1.5. Equipment performance is checked and adjusted as required.</p> <p>1.6. Pre-start checks are carried out as required by workplace requirements.</p>
2. Operate and monitor the proving process	<p>2.1. The process is started and operated according to workplace procedures.</p> <p>2.2. Equipment is monitored to identify variation in operating conditions.</p> <p>2.3. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements.</p> <p>2.4. The process is monitored to confirm that proved product meets specifications.</p> <p>2.5. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p> <p>2.8. Workplace records are maintained according to workplace recording requirements.</p>
3. Shut down the proving process	<p>3.1. The appropriate shutdown procedure is identified.</p> <p>3.2. The process is shut down and cleaned according to workplace procedures.</p> <p>3.3. Maintenance requirements are identified and reported according to workplace reporting requirements.</p>

Variable	Range
Equipment	final proves
Operation of equipment and processes	May include but not limited to: <ul style="list-style-type: none"> the use of process control panels and systems
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> Standard Operating Procedures (SOPs) specifications production schedules and instructions manufacturers' advice standard forms and reports
Services	May include but not limited to: <ul style="list-style-type: none"> power steam water gas compressed and instrumentation air

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> conduct pre-start checks on machinery used for proving start, operate, monitor and adjust process equipment to achieve required quality outcomes take corrective action in response to typical faults and inconsistencies complete workplace records as required apply safe work practices and identify OHS hazards and controls safely shut down equipment Apply food safety procedures to work practices.
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> purpose and basic principles of each stage of the final proving process basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation

	<ul style="list-style-type: none"> • services required and action to take if services are not available • the flow of the proving process and the effect of outputs on downstream processes • the effect of process variables, such as time, temperature and humidity on process stages • the effect of yeast activity on the end product • quality characteristics to be achieved by the proving process • quality requirements of materials and effect of variation on proving process performance • operating requirements and parameters and corrective action required where operation is outside specified operating parameters • typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems • methods used to monitor the final proving process, such as inspecting, measuring and testing as required by the process • inspection or test points (control points) in the proving process and the related procedures and recording requirements • contamination/food safety risks associated with the final proving process and related control measures • batch/product changeover requirements • common causes of variation and corrective action required • Occupational Health and Safety (OHS) hazards and controls, including the limitations of protective clothing and equipment relevant to the work process • requirements of different shutdowns as appropriate to the proving process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage • isolation, lock out and tag out procedures and responsibilities • procedures and responsibility for reporting production and performance information • product/process changeover procedures and responsibilities • cleaning and sanitation procedures • environmental issues and controls relevant to the proving process, including waste/rework collection and handling procedures related to the process • basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment • sampling and testing associated with process monitoring and control where relevant • routine maintenance procedures where relevant 		
Underpinning Skills	Demonstrate skills to:		
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	<ul style="list-style-type: none"> • access workplace information to identify proving requirements • select, fit and use personal protective clothing and/or equipment • confirm supply of necessary materials and services • conduct pre-start checks, such as inspecting equipment condition to identify any signs of wear, selecting appropriate settings and/or related parameters, cancelling isolation or lockouts as required, confirming that related equipment is clean and correctly configured for proving process requirements, positioning sensors and controls correctly, ensuring any scheduled maintenance has been carried out, and confirming that all safety guards are in place and operational • specific settings may include proving time, temperature, humidity and loading arm position • start, operate, monitor and adjust proving process equipment to achieve required outcomes, such as monitoring control points and conducting inspections as required to confirm process remains within specification: <ul style="list-style-type: none"> ➤ for proving, including dough condition/surface and dough size/height • monitor supply and flow of materials to and from proving process • take corrective action in response to out-of-specification results • respond to and/or report equipment failure within level of responsibility • locate emergency stop functions on equipment • follow isolation and lock out/tag out procedures as required to take proving process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility • demonstrate batch/product changeovers • clean and sanitize equipment • complete workplace records as required • maintain work area to meet housekeeping standards • use process control systems according to enterprise procedures • collect samples and conduct tests according to enterprise procedures • conduct routine maintenance according to enterprise procedures • use oral communication skills/language competence to fulfil the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
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Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Bake Bread
Unit Code	IND BKG3 13 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to bake bread in an in-store bakery or retail banking environment.

Elements	Performance Criteria
1. Prepare to bake dough	1.1. Baking parameters are selected as required to meet safety and baking requirements. 1.2. Dough pieces are loaded into the oven. 1.3. Ingredients are confirmed and available to meet finishing requirements.
2. Bake bread	2.1. Ovens are operated to meet required output. 2.2. Baked product meets food safety and quality requirements. 2.3. Unacceptable baked product is identified, rectified and/or reported. 2.4. The work area is maintained according to housekeeping standards. 2.5. Work is conducted in accordance with workplace environmental guidelines.

Variable	Range
Ovens	May include but not limited to: <ul style="list-style-type: none"> Ovens may be loaded manually, or by placing trays or using slips and belts according to workplace equipments
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> verbal or written instructions Standard Operating Procedures (SOPs) specifications production schedules and recipe instructions

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> conduct pre-start checks on ovens used for baking

	<ul style="list-style-type: none"> • start, operate, monitor and adjust ovens to achieve required quality outcomes • assess bread outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • safely shut down ovens • apply food safety procedures.
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • changes that occur to the product during baking • how dough characteristics such as shape/size and skin formation affect the final product • the effect of variables, such as time, temperature and humidity on baking • the effect of yeast activity on the final product • quality characteristics of final product, including: <ul style="list-style-type: none"> ➤ volume ➤ grain ➤ texture ➤ crumb color ➤ crust formation and color • settings, operating requirements and safety features of equipment used • causes of variation and corrective action required • control points and related monitoring requirements • Occupational Health and Safety (OHS) hazards and controls • waste handling and cleaning requirements
<p>Underpinning Skills</p>	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information to identify recipe/baking requirements • select appropriate oven settings and start up the oven, including setting time and temperature controls • load dough pieces • schedule loads according to volume and temperature requirements to achieve time and energy efficiencies • monitor baking process, including: <ul style="list-style-type: none"> ➤ steam injection (as required) ➤ crust color ➤ sheen ➤ uniformity of shape ➤ size (oven spring) • take corrective action as required to maintain quality of product • maintain workplace records as required • maintain work area to meet housekeeping standards

	<ul style="list-style-type: none"> • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Monitor the Implementation of Quality and Food Safety Programs
Unit Code	IND BKG3 14 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to provide a leadership role in supporting day-to-day implementation of the food safety/quality programs in a work area. It also involves supporting others to implement the requirements of the food safety/quality procedures.

Elements	Performance Criteria
1. Ensure others in the work area are able to meet quality and food safety requirements	<p>1.1. Hazard control and clothing and equipment appropriate to work requirements are made available, functional and correctly fitted.</p> <p>1.2. Information on food safety/quality responsibilities and procedures is current, accessible and communicated to others in the work area.</p> <p>1.3. Information about identified hazards and the outcomes of risk assessment and risk control procedures is accessible and communicated to others in the work area.</p> <p>1.4. Food safety hazards and quality control measures used in the work area can be identified by those in the work area.</p> <p>1.5. Mentoring and coaching support is available to support individuals/groups to implement quality and safe food handling procedures.</p> <p>1.6. Training needs are identified and addressed within level of responsibility.</p>
2. Monitor observance of quality standards and food safety programs in the work area	<p>2.1. Work procedures in the work area are clearly defined, documented and followed.</p> <p>2.2. Deviation from identified procedures is identified, reported and addressed within level of responsibility.</p> <p>2.3. Personal behavior is consistent with workplace policies and procedures that support food safety and quality.</p> <p>2.4. Food safety hazards and/or quality are identified and reported according to workplace procedures.</p> <p>2.5. Food safety and quality information is recorded to meet workplace reporting requirements.</p> <p>2.6. The work area is maintained according to housekeeping standards.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p>

<p>3. Take corrective action in response to quality and food safety non-compliance</p>	<p>3.1. Workplace procedures for responding to quality and food safety non-compliance are promptly implemented.</p> <p>3.2. Hazardous events are investigated to identify cause.</p> <p>3.3. Control measures to prevent recurrence and minimize risks of hazardous events are implemented.</p>
<p>4. Maintain and improve quality and food safety in the work area</p>	<p>4.1. Processes or conditions which could result in a breach of food safety procedures or quality specifications are identified, assessed, removed or and/reported within level of responsibility and according to workplace procedures.</p> <p>4.2. Risk assessments are conducted and appropriate control measures are identified and implemented in the work area.</p> <p>4.3. Recommendations arising from risk assessments are implemented within level of responsibility.</p> <p>4.4. Inadequacies in control measures are identified and reported according to company reporting requirements.</p> <p>4.5. Matters raised relating to quality/food safety are promptly resolved and/or referred to appropriate personnel.</p> <p>4.6. The work group is consulted and advised of quality/food safety matters relevant to work role.</p> <p>4.7. Opportunities for improving food safety and quality are identified and raised with relevant personnel.</p> <p>4.8. Procedures are developed or revised to support effective control of quality and food safety hazards.</p> <p>4.9. Quality/food safety records are reviewed to ensure they are complete and meet the quality system, food safety program and legal requirements.</p>

Variables	Range
Work responsibilities	may include formal or informal responsibility for modeling appropriate quality/food safety policies and procedures and providing a support role to others in the work area
Food safety program	is a written document that specifies how a business will control all food safety hazards that may be reasonably expected to occur in all food handling operations of the food business. The food safety program and related procedures must comply with legal requirements of the food safety standards and must be communicated to all food handlers. Where no food safety program is in place, food safety requirements may be specified in general operating procedures
Quality systems	may be externally accredited, such as an ISO system, or internally designed and managed

Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • food safety and quality policies and programs • Standard Operating Procedures (SOPs) • specifications • log sheets • written or verbal instruction incorporating food safety and quality requirements
Incidents	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • a situation where the safe limits or parameters identified by the food safety program are not met • A quality incident is: • a situation where the quality limits or parameters identified in specifications or processing instructions are not met
Monitoring	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • taking temperatures • collecting samples • conducting visual inspections and additional testing as required
Responsibility for identifying breaches of food safety procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • and taking corrective action occurs in the context of the food safety program and within scope of responsibility
Responsibility for identifying non-compliance against quality standards	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • occurs within the context of defined standards or specifications and relates to work area
Personal hygiene requirements	<p>Minimum personal hygiene requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in the state or territory legislation/regulations</p>
Reporting of health conditions and illnesses	<p>requirements are specified by the food safety program. At a minimum this must meet legal requirements as set out in state or territory legislation/regulations</p>
Operator responsibilities	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • The operator at this level may not have direct responsibility for overseeing the training/development of team members. At a minimum they must be able to identify development needs of others in the work area and refer this information to the relevant personnel. • The operator at this level may not have responsibility for independently assessing risks and determining the effectiveness of control measures. However, they would be expected to observe day-to-day effectiveness and participate in assessment and review processes. Responsibilities at this level may include facilitating consultation processes within level of responsibility
Record keeping	<p>Record keeping complies with customer, legal and food safety program requirements</p>

Evidence Guide			
Critical aspects of competence	<p>A candidate must demonstrate the ability to:</p> <ul style="list-style-type: none"> • describe quality and food safety program, risks and control measures of the work area • confirm that control measures are in place and that personnel in the work area are equipped and informed to implement programs • identify, address and follow up on non-compliances • identify causes of non-compliances • conduct risk assessments and recommend responsive action • provide support to others to implement the programs • complete and maintain documentation 		
Underpinning Knowledge	<p>Demonstrate Knowledge of:</p> <ul style="list-style-type: none"> • sources of information and expertise on procedures and responsibilities for food safety relevant to the workplace • principles of a HACCP-based approach to managing food safety, including identifying hazards that are likely to occur, establishing appropriate methods of control and confirming that controls are met • basic concepts of quality assurance including hazards, risk assessment and control methods • company programs and systems in place to manage and support quality and food safety in the workplace, which may involve separate or integrated programs, including systems for maintaining and updating documents, such as operating procedures and specifications • clothing and footwear requirements for working in and/or moving between food handling areas, including personal clothing maintenance, laundering and storage requirements • appropriate bandages and dressings to be used when undertaking food handling • housekeeping requirements and responsibilities relating to own work, where relevant this includes use and storage of housekeeping/cleaning equipment • procedures to follow in the event of pest sighting or discovery of infestation • purpose and importance of cleaning and sanitation procedures • legal obligations for food safety and quality, including an awareness of government legislation and customer requirements • food safety and quality responsibilities and requirements relating to the work area • awareness of common micro biological, physical and chemical 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 		
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	<ul style="list-style-type: none"> • suitable standard for materials, measuring devices, equipment and utensils used in the work area • properties of food and ingredients used that affect food safety, including an understanding of related storage, processing and handling requirements • current technical and process knowledge required to participate in investigations of food safety/quality hazards, risks and incidents within level of responsibility, including an understanding of common micro biological, physical and chemical hazards, related control methods and the way changes in equipment and/or processing methods can affect food safety and quality outcomes • procedures for identifying unsafe and/or non-conforming product, including control points and evidence of out-of-specification product or materials • sampling procedures, test methods and inspections • options for responding to non-compliance, including legal responsibility, risk management and cost/implications of different responses and level of responsibility for decision making • methods used in the workplace to isolate or quarantine food which may be unsafe • waste collection, recycling, handling and disposal, including handling/disposal requirements for different types of waste, such as hazardous waste where relevant • traceability and recall procedures within level of responsibility • documentation system and procedures, including record keeping to meet both company and legal requirements, procedures for developing and/or reviewing workplace procedures, and document control systems used in the workplace • auditing arrangements, roles and responsibilities as they relate to own work responsibilities, such as internal and external audit processes • appropriate communication skills and techniques to convey information on quality and food safety requirements to others in the workplace • cleaning and sanitation procedures where relevant • impact of rework handling/addition on food safety where relevant • sampling and test methods where relevant • facilitation and consultation techniques where relevant 		
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access, interpret and communicate information about the food safety program, quality requirements and related procedures to others in the work area • demonstrate two-way communication, including active listening and responding constructively to feedback • provide access to and maintain current food safety/quality documentation 		
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	<ul style="list-style-type: none"> • model safe food handling and quality practices and procedures to achieve required outcomes, including demonstrating: • work procedures that meet the requirements of quality and food safety • cleaning and sanitizing equipment • sampling and testing as appropriate according to quality and food safety requirements • maintaining personal hygiene • wearing appropriate clothing and footwear as required by the work task • following procedures when moving within and between work areas • reporting health conditions and illnesses according to workplace procedures • handling, cleaning and storing equipment, utensils and packaging materials as appropriate • identify control points in the work area and demonstrate monitoring techniques used (control points include critical, quality and regulatory control points) • support others to meet quality standards and follow food safety procedures by ensuring that all personnel in the work area receive the information required and have the necessary skills and equipment to carry out their responsibilities • identify, report and/or address food safety/quality non-compliance in an appropriate and timely manner within level of responsibility • determine when and how to make adjustments to maintain output within level of responsibility • identify, report and/or address food safety/quality training and development needs of others in the work area • ensure that appropriate and timely action is taken in response to non-compliance • handle and dispose of out-of-specification or contaminated food, waste and recyclable material according to food safety program as this requirement relates to own work responsibility • participate in investigations of non-compliance and risk assessment processes • participate in consultation processes to improve quality and food safety outcomes in the workplace • review practice and procedures to implement recommendations arising from risk assessments and/or improvement proposals within level of responsibility, such as collecting and analyzing food safety/quality records, reviewing operating procedures and communicating changes to others in the work area • ensure that housekeeping standards are maintained and that equipment is in operational order, such as participating in the management of equipment calibration
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	<ul style="list-style-type: none"> • monitor the recording of quality and food safety information to confirm that records accurately reflect performance and meet the requirements of the food safety and quality programs • participate in food recall procedures as required, within level of responsibility • facilitate consultation processes according to enterprise procedures • lead investigations of quality and food safety incidents according to enterprise procedures • work cooperatively within a culturally diverse workforce
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Monitor Storage Facilities
Unit Code	IND BKG3 15 0613
Unit Descriptor	This unit involves the skills and knowledge required to monitor storage facilities in accordance with workplace requirements including determining site functions and operations; monitoring storage operations in accordance with workplace procedures; and taking appropriate action in response to identified discrepancies, changes to storage requirements, or breaches in operational procedures.

Elements	Performance Criteria
1 Determine site functions and operations	<p>1.1 Layout of storage facilities, work flow and activities undertaken in each zone are identified.</p> <p>1.2 Type of storage facilities, their purpose and (any) associated risk factors are identified.</p> <p>1.3 Inventory lists are accessed through record management system</p> <p>1.4 Storage separations and co-storage applications are identified.</p>
2 Monitor storage operations	<p>2.1 Inventory data is confirmed to match goods/freight and applicable storage requirements.</p> <p>2.2 Storage areas are supervised to ensure movement of personnel and goods/freight is in accordance with workplace procedures.</p> <p>2.3 Storage facilities are checked to ensure appropriate operational capacity.</p> <p>2.4 Integrity of goods/materials is monitored to ensure appropriate quality is maintained.</p> <p>2.5 Discrepancies/changes to storage requirements and/or inventory lists are noted and action undertaken in accordance with workplace procedures.</p> <p>2.6 Appropriate action(s) are initiated in response to breaches of operational procedures or to an emergency/incident.</p> <p>2.7 Operational actions and investigative outcomes are documented in accordance with workplace procedures.</p>

Variable	Range
Work	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • in a range of work environments • by day or night

Customers	May include but not limited to: <ul style="list-style-type: none"> • internal or external
Workplaces	May include but not limited to: <ul style="list-style-type: none"> • large, medium or small worksites
Requirements	May include but not limited to: <ul style="list-style-type: none"> • restricted spaces • site restrictions and procedures • use of safety and personal protective equipment • communications equipment • specialized lifting and/or handling equipment • incident/accident breakdown procedures • additional gear and equipment • noise restrictions • hours of operations • authorities and permits
Work may be conducted	May include but not limited to: <ul style="list-style-type: none"> • restricted spaces • exposed conditions • controlled or open environments • environments involving the movement of equipment, goods, materials and/or vehicular traffic
Goods	May include but not limited to: <ul style="list-style-type: none"> • special handling, location, storage and/or packaging requirements, including temperature controlled goods and dangerous goods
Modes of transfer	May include but not limited to: <ul style="list-style-type: none"> • manual or motorized
Storage types	May include but not limited to: <ul style="list-style-type: none"> • bin/binning systems • rack refrigeration/freezers/cold rooms • marked floor space • containers • racks and racking systems • block/stacks • pallets
Inventory systems	May include but not limited to: <ul style="list-style-type: none"> • automated • manual • paper-based • computerized • microfiche
Categories or groups of products/stock	May include but not limited to: <ul style="list-style-type: none"> • small parts • perishable goods • overseas export • dangerous goods

	<ul style="list-style-type: none"> • refrigerated products • temperature controlled stock • fragile goods
The characteristics of products/stock	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • small parts • toxicity • flammability • form • weight • size • state • perish ability • fragility • security risk
Labeling systems	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • batch code • bar code • identification numbering systems • serial numbers • symbols for safe handling • ADG and HAZCHEM Codes
Hazards in the work area	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • hazardous or dangerous materials • contamination of, or from, materials being handled • noise, light, energy sources • stationary and moving machinery, parts or components • service lines • skills, leakages, ruptures • dust/vapors • oil or water on floor • a fire or explosion • damaged packaging or pallets • debris on floor • faulty racking • poorly stacked pallets • faulty equipment
Communication in the work area	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • phone • electronic data interchange (EDI) • fax • email • internet • RF systems • oral, aural or signed communications

Depending on the type of organization concerned and the local terminology used, workplace procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • company procedures • enterprise procedures • organizational procedures • established procedures
Personal protective equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Gloves • safety headwear and footwear • safety glasses • two-way radios • high visibility clothing
Consultative processes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • other employees and supervisors • suppliers, customers and clients • relevant authorities and institutions • management and union representatives • industrial relations and OHS specialists • other maintenance, professional or technical staff
Information/documents	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • goods identification numbers and codes • manifests, picking slips, merchandise transfers, stock requisitions and bar codes • codes of practice and regulations relevant to workplace operations • Ethiopian and international regulations and codes of practice for the handling, stacking and transport of dangerous goods and hazardous substances • operations manuals, job specifications and induction documentation • manufacturers specifications for equipment • workplace procedures and policies • supplier and/or client instructions • dangerous goods declarations and material safety data sheets (where applicable) • award, enterprise bargaining agreement, other industrial arrangements • relevant Ethiopian standards and certification requirements • quality assurance procedures • emergency procedures
Applicable regulations and legislation	<ul style="list-style-type: none"> • codes and regulations relevant to the monitoring of storage facilities • Ethiopian and international regulations and codes of practice for the storage of dangerous goods and hazardous substances, including: <ul style="list-style-type: none"> ➤ Ethiopian Dangerous Goods Code

	<ul style="list-style-type: none"> ➤ Ethiopian Explosives Code • license, patent or copyright arrangements • water and road use and license arrangements • export/import/quarantine/bond requirements • marine orders • relevant state/territory OHS and environmental protection legislation • workplace relations and workers compensation regulations
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: <ul style="list-style-type: none"> ➤ the underpinning knowledge and skills ➤ relevant legislation and workplace procedures ➤ other relevant aspects of the range statement
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • Ethiopian codes and regulations, permit and license requirements relevant to the workplace activities • Relevant OHS and environmental protection procedures and guidelines • Workplace procedures and policies relevant to the monitoring of storage facilities • Focus of operation of work systems, equipment, management and site operating systems • Information on various categories or groups of products including their key characteristics and hazards and the special handling, stacking and storage requirements for each • Types of storage areas and related equipment appropriate for different types of goods including perishable, fragile, dangerous, composition/state goods • Equipment applications, capacities, configurations, safety hazards and control mechanisms • Requirements for workplace documentation reports and records • Problems that may occur when monitoring storage facilities and appropriate action that can be taken • Site layout • Housekeeping standards and procedures required in the workplace
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • Communicate effectively with others when monitoring storage facilities • Read and interpret instructions, procedures, information and signs relevant to the monitoring of storage facilities

	<ul style="list-style-type: none"> • Complete documentation related to the monitoring of storage facilities • Work collaboratively with others when monitoring storage facilities • Adapt appropriately to cultural differences in the workplace, including modes of behavior and interactions with others • Promptly report and/or rectify any identified problems, faults or malfunctions when monitoring storage facilities in accordance with regulatory requirements and workplace procedures • Implement contingency plans for unplanned events related to the monitoring of storage facilities • Apply precautions and required action to minimize, control or eliminate hazards that may exist during work activities • Modify activities depending on differing operational contingencies, risk situations and environments • Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment • Operate and adapt to differences in equipment in accordance with standard operating procedures • Use information on products and stock to determine, plan and organize processes used for the monitoring of storage facilities • Select and use relevant communications, computing and office equipment when monitoring storage facilities • Monitor performance of equipment • Select and use required personal protective equipment conforming to industry and OHS standards
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Perform Basic Tests
Unit Code	IND BRKG3 16 0613
Unit Descriptor	This unit of competency covers the ability to perform tests and measurements using standard methods with access to readily available advice from supervisors.

Elements	Performance Criteria
1. Interpret test requirements	<p>1.1. Test request is reviewed to identify samples to be tested, test method and equipment involved.</p> <p>1.2. Hazards and enterprise controls associated with the sample, preparation methods, reagents and/or equipment are identified.</p>
2. Prepare sample	<p>2.1. Sample description is recorded, compared with specification, discrepancies are recorded and reported.</p> <p>2.2. Sample is prepared in accordance with appropriate standard methods.</p>
3. Check equipment before use	<p>3.1. Test equipment is set up in accordance with test method.</p> <p>3.2. Pre-use and safety checks are performed in accordance with enterprise procedures and manufacturer's instructions.</p> <p>3.3. Faulty or unsafe equipment is identified and reported to appropriate personnel.</p> <p>3.4. Calibration status of equipment is checked and any out of calibration items reported to appropriate personnel.</p>
4. Perform tests on samples	<p>4.1. Sample and standards to be tested are identified, prepared and weighed or measured.</p> <p>4.2. Tests are conducted in accordance with enterprise procedures.</p> <p>4.3. Data is recorded in accordance with enterprise procedures</p> <p>4.4. Calculations on data are performed as required.</p> <p>4.5. Identify and report out of specification or atypical results promptly to appropriate personnel.</p> <p>4.6. Equipment is shut down in accordance with operating procedures.</p>
5. Maintain a safe work environment	<p>5.1. Established safe work practices and personal protective equipment are used to ensure personal safety and that of other laboratory personnel.</p> <p>5.2. The generation of wastes and environmental impacts are minimized.</p>

	<p>5.3. Safe disposal of laboratory and hazardous wastes is ensured.</p> <p>5.4. Equipment and reagents are cleaned, cared for and stored as required.</p>
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Variable	Range
Hazards	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • electric shock • biohazards, such as microbiological organisms and agents associated with soil, air, water, blood and blood products, and human or animal tissue and fluids • solar radiation, dust and noise • chemicals, such as sulphuric acid, fluorides and hydrocarbons • aerosols • sharps, broken glassware and hand tools • flammable liquids • dry ice and liquid nitrogen • fluids under pressure • sources of ignition • occupational overuse syndrome, slips, trips and falls • manual handling, working at heights and working in confined spaces • crushing, entanglement and cuts associated with moving machinery or falling objects
Enterprise controls to address hazards	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • use of MSDS • use of signage, barriers and service isolation tags • use of personal protective equipment, such as hard hats, hearing protection, sunscreen lotion, gloves, safety glasses, goggles, face guards, coveralls, gowns, body suits, respirators and safety boots • use of appropriate equipment, such as biohazard containers and cabinets and laminar flow cabinets • recognizing and observing hazard warnings and safety signs • labeling of samples, reagents, aliquot samples and hazardous materials • handling and storage of all hazardous materials and equipment in accordance with labeling, MSDS and manufacturer's instructions, and enterprise procedures and regulations • cleaning and decontaminating equipment and work areas regularly using recommended procedures • following established manual handling procedures for tasks involving manual handling
Codes of practice	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Where reference is made to industry codes of practice, and/or Ethiopian/international standards, it is expected the latest version will be used

Standards, codes, procedures and/or enterprise requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Ethiopian and international standards, • calibration and maintenance schedules • enterprise recording and reporting procedures • equipment manuals • equipment startup, operation and shutdown procedures • MSDS and safety procedures • material, production and product specifications • national measurement regulations and guidelines • principles of Good Laboratory Practice (GLP) • production and laboratory schedules • quality manuals • Standard Operating Procedures (SOPs)
Concepts of metrology	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • that all measurements are estimates • measurements belong to a population of measurements of the measured parameters • repeatability • precision • accuracy • significant figures • sources of error • uncertainty • traceability
Preparation of samples	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • sub-sampling or splitting using procedures, such as riffing, coning and quartering, manual and mechanical splitters • diluting samples • physical treatments, such as ashing, dissolving, filtration, sieving, centrifugation and comminution • molding, casting or cutting specimens
Typical tests carried out by laboratory/field assistants	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • visual/optical tests of appearance, color, texture, identity, turbidity, refractive index (alcohol content and Baume/Brix) • physical tests: <ul style="list-style-type: none"> ➤ density, specific gravity and compacted density ➤ moisture content and water activity ➤ particle size, particle shape and size distribution • chemical tests: <ul style="list-style-type: none"> ➤ gravimetric ➤ colorimetric ➤ electrical conductivity (EC) and pH ➤ specific ions using dipsticks and kits ➤ nutrients (e.g. nitrates and orthophosphates) using basic kits ➤ ashes, including sulphated ashes

	<ul style="list-style-type: none"> • biological/environmental tests: <ul style="list-style-type: none"> ➢ pH, oxygen reduction potential (ORP), dissolved oxygen (DO) and (EC) ➢ E coli using test kits ➢ surface hygiene/presence of microbes • packaging tests: <ul style="list-style-type: none"> ➢ tearing resistance, bursting strength and impact resistance ➢ permeability and/or leakage • mechanical tests: <ul style="list-style-type: none"> ➢ Emerson class ➢ concrete slump
Measurements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • simple ground surveys • meteorological parameters, such as wind direction/strength, rainfall, maximum/minimum temperature, humidity and solar radiation • simple background radiation survey • production/process parameters, such as temperature, flow and pressure • gas levels in a confined space
Common measuring equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • dimension apparatus • DO and EC • analogue and digital meters and charts/recorders • basic chemical and biological test kits • dipsticks and site test kits (e.g. HACK) • timing devices • temperature measuring devices, such as thermometers and thermocouples
Minimizing environmental impacts	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • recycling of non-hazardous waste, such as chemicals, batteries, plastic, metals and glass • appropriate disposal of hazardous waste • correct disposal of excess sample/test material • correct storage and handling of hazardous chemicals
Occupational Health and Safety (OHS) and environmental management requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • accurately interpret enterprise procedures or standard methods

	<ul style="list-style-type: none"> • complete all tests within the required timeline without sacrificing safety, accuracy or quality • demonstrate close attention to the accuracy and precision of measurements and the data obtained • Maintain the security, integrity and traceability of all samples, data/results and documentation.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • concepts of metrology • the international system of units (SI) • purpose of test • principles of the standard method • pre-use equipment checks • relevant standards/specifications and their interpretation • sources of uncertainty in measurement and methods for control • enterprise and/or legal traceability requirements • interpretation and recording of test result, including simple calculations • procedures for recognition/reporting of unexpected or unusual results • relevant health, safety and environment requirements
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • interpreting enterprise procedure or standard methods accurately • using safety information, such as material safety data sheets (MSDS) and performing procedures safely • checking test equipment before use • completing all tests within required timeline without sacrificing safety, accuracy or quality • calculating, recording and presenting results accurately and legibly • maintaining security, integrity and traceability of all samples, data/results and documentation • cleaning and maintaining equipment
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Apply Competitive Manufacturing Practices
Unit Code	IND BKG3 17 0613
Unit Descriptor	This unit covers the skills needed to implement basic improvement practices within a competitive manufacturing organization. The unit focuses on bringing together the basic concepts and the holistic application of these basic concepts and processes to manufacturing. It would typically be carried out working as part of a team.

Elements	Performance Criteria
1. Focus on the basic competitive manufacturing concepts	1.1. Customers and their needs/requirements are identified. 1.2. Suppliers are identified. 1.3. Value contributions are identified along the chain. 1.4. Methods of increasing own contribution are identified and recommended to the value chain.
2. Improve the product/process value	2.1. Customer features/benefits are identified in the product. 2.2. Items which contribute to those features/benefits are identified. 2.3. Things which do not contribute to customer benefits/features are identified. 2.4. Methods of increasing features/benefits are recommended.
3. Use competitive manufacturing tools	3.1. Appropriate tools are selected for the job/process. 3.2. The tool is applied to the job/process. 3.3. The job/process is monitored and adjustments made to improve it in accordance with procedures . 3.4. Own skill requirements are identified and skill development sought if required.

Variable	Range
Customer	May include but not limited to: <ul style="list-style-type: none"> Customer may be interpreted to be an internal customer, but typically the benefits to the final customer should be used as the basis for the identification of waste. The operator does not need to interface directly with the external customer, but should be provided with sufficient information to enable them to identify customer benefits and features. Supplier may be interpreted to be an internal supplier, but typically the external supplier and their abilities should be known. The operator does not need to interface directly with the external supplier, but should be provided with sufficient information to enable them to identify supplier abilities.

Competitive manufacturing	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • lean manufacturing • agile manufacturing • preventative and predictive maintenance approaches • monitoring and data gathering systems such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Manufacturing Resource Planning (MRP), and proprietary systems such as SAP • statistical process control systems including six sigma and three sigma • Just In Time (JIT), kanban and other pull related manufacturing control systems • supply, value, and demand chain monitoring and analysis other continuous improvement systems. • Competitive manufacturing should be interpreted so as to take into account the stage of implementation of competitive manufacturing approaches, the size of the enterprise, the work organization, culture, regulatory environment and manufacturing sector.
Procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Procedures include all work instructions, standard operating procedures, formulas/recipes, batch sheets, temporary instructions and similar instructions provided for the smooth running of the plant. They may be written, verbal, computer based or in some other form. • For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (e.g. Good Manufacturing Practice (GMP), Responsible Care) and government regulations.
Tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Tools are used in this unit to mean the tools of competitive manufacturing such as 5S, 6 s , continuous improvement, cause effect diagrams

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • There should be evidence of the individual's contribution to the value chain and willing application of competitive manufacturing to their job.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • the customers and the benefits they derive from the products • the suppliers and their capabilities • product waste • relevant tools for their job and how to apply them • factors impacting on the product, process and waste, particularly those wholly or partially under their control (and how to control them)

Underpinning Skills	Demonstrate skills to: <ul style="list-style-type: none"> • analysis • communication • planning • teamwork • problem solving
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Apply Raw Materials, Ingredient and Process Knowledge to Production Problems
Unit Code	IND BKG3 18 0613
Unit Descriptor	<p>This unit of competency covers skills and knowledge required to apply knowledge of ingredients and processes to troubleshoot typical problems that occur in preparing, processing and/or packaging product.</p> <p>This unit applies where problem solving occurs over one or more processes and requires an understanding of the characteristics of raw materials and ingredients and processing methods used. It typically applies to the production operator where responsibility for solving problems relating to non-conforming raw materials, ingredients and processes.</p>

Elements	Performance Criteria
1. Identify and respond to non-conforming ingredients/raw materials	<p>1.1. Non-conformance in raw materials/ingredients is identified and reported according to workplace reporting requirements.</p> <p>1.2. Causes of non-conformance are investigated and reported according to workplace reporting requirements.</p> <p>1.3. Corrective action is determined and implemented within level of responsibility and workplace procedures.</p> <p>1.4. Action is taken to prevent recurrence of non-conformance.</p> <p>1.5. Action is reported according to workplace reporting requirements.</p>
2. Identify and respond to non-conforming product and processes	<p>2.1. Processing parameters, stages and changes which occur during processing are monitored.</p> <p>2.2. Non-conformance in processing, handling and/or storage is identified and corrective action taken according to workplace requirements.</p> <p>2.3. Causes of non-conformance relating to processing, handling and/or storage are investigated and reported according to workplace reporting requirements.</p> <p>2.4. Corrective action is determined and implemented within level of responsibility and workplace procedures.</p> <p>2.5. Action is taken to prevent recurrence of non-conformance.</p> <p>2.6. Action is reported according to workplace reporting requirements.</p> <p>2.7. Work is conducted in accordance with workplace environmental guidelines.</p>

Variable	Range
Ingredients/raw materials	May include but not limited to: <ul style="list-style-type: none"> Ingredients/raw materials are those used to manufacture product
Typical processing and related techniques	May include but not limited to: <ul style="list-style-type: none"> raw materials/ingredient dispensing preparation mixing and blending conditioning primary and further processing wrapping packing and storage
Typical process parameters	May include but not limited to: <ul style="list-style-type: none"> temperature time pressure and flow rate
Typical reactions	May include but not limited to: <ul style="list-style-type: none"> Typical reactions depend on processing method. Examples include but are not limited to: gelatinization and hydration
Problem minimization	May include but not limited to: <ul style="list-style-type: none"> Where recurrence of a problem cannot be prevented, procedures should be established to minimize the likelihood of recurrence and to identify any further incidents
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements.
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes: the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> describe required quality characteristics for raw materials and ingredients describe required processes to achieve production specifications identify common non-conforming materials and ingredients and causes

	<ul style="list-style-type: none"> • identify common non-conforming processes and causes • determine and undertake corrective action for non-conformances • complete workplace documentation and report non-conformances • apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • basic composition and function of each main raw material/ingredient used, such as awareness of ingredient grades or types • common causes of contamination/unacceptable quality of raw materials/ ingredients • methods used to confirm quality standard, such as accessing information (e.g. certificates of analysis and/or laboratory clearance information) • the effect of variation in raw materials/ingredients on processing stages and final product outcome, including factors likely to cause variation, and scope to adjust or correct for variation at each processing stage • appropriate handling and storage requirements for raw materials/ingredients and final product, and the effect of failing to meet required storage conditions • the changes and reactions that occur through processing stages, including the signs and symptoms of poor/unacceptable processing or equipment operation • factors that affect the shelf-life of product • the inter-relationships between processing stages and the effect of variation in processing parameters on process outcome and on final product, including factors likely to cause variation, and scope to adjust or correct for variation at subsequent process stages • procedures for identifying and isolating non-conforming product • troubleshooting information and techniques • procedures and related documentation required to amend or introduce a new method or procedure, such as short term procedures for amending or updating specifications and processing parameters • reporting requirements and responsibilities • test methods to confirm raw material/ingredient and/or final product quality characteristics where relevant
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • identify requirements of ingredient/raw material characteristics within level of responsibility • follow procedures to identify, remove/isolate and report non-conforming ingredients/materials and/or product according to workplace reporting requirements

	<ul style="list-style-type: none"> • determine likely causes of non-conformance of ingredients/raw materials • recognize indicators of unacceptable or non-conforming processing, handling and/or storage outcomes • act promptly to identify, remove/isolate and report non-conforming product and/or processes • access and apply workplace information relating to process troubleshooting • investigate non-conformance to determine likely causes and report findings to appropriate personnel • identify action required to correct non-conformance and implement within level of responsibility • identify action required to prevent or minimize and control recurrence of non-conformance and implement within level of responsibility • complete workplace records, including reporting non-conformance and documenting corrective actions according to workplace recording procedures • conduct tests to confirm raw material/ingredient and/or final product quality characteristics according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Diagnose and Respond to Product and Process Faults
Unit Code	IND BKG3 19 0613
Unit Descriptor	This unit of competency covers the skill and knowledge required to determine cause and address faults in bread products.

Elements	Performance Criteria
1. Identify causes of unacceptable product quality	1.1. Unacceptable products are analyzed to determine cause. 1.2. Process parameters and reactions which occur during processing are monitored.
2. Take corrective action according to workplace procedures	2.1. Corrective action is taken to remove unacceptable product and prevent recurrence of the problem according to workplace procedures. 2.2. Corrective action is recorded according to workplace procedures and food safety program.

Variable	Range
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> the Food Standards Code, including labeling, weights and measures legislation legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity
Raw materials	May include but not limited to: <ul style="list-style-type: none"> those used to manufacture bread, pastry, cake and cookies products
Causes of unacceptable quality	May include but not limited to: <ul style="list-style-type: none"> raw materials, processing and/or storage
Ingredients	May include but not limited to: <ul style="list-style-type: none"> those ingredients used in product Materials may include: <ul style="list-style-type: none"> packaging consumables
Typical process parameters	May include but not limited to: <ul style="list-style-type: none"> temperature time humidity and development/proving time

Evidence Guide	
Critical Aspects of Competence	Must demonstrate ability to: <ul style="list-style-type: none"> identify product faults and determine cause

	<ul style="list-style-type: none"> • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Must demonstrate Knowledge to:</p> <ul style="list-style-type: none"> • basic composition, characteristics and function of each main ingredient used, including: <ul style="list-style-type: none"> ➢ form/grade of ingredient supplied ➢ behavior/changes occurring during processing • role and purpose • preparation requirements for use, such as conditioning fruit • bread styles, types and textures, including labeling requirements for types of bread consistent with the Food Standards Code • impact of ingredient cost and yields on profit margin • principles of processing techniques used to achieve finished products, including: <ul style="list-style-type: none"> ➢ wet and dry proving methods ➢ types of mixers used ➢ hand molding ➢ oven types, including method of steam generation ➢ methods of delivering product to the oven • effect of typical reactions during mixing, development and baking, such as: <ul style="list-style-type: none"> ➢ yeast activity ➢ gluten development ➢ browning and caramelisation ➢ gelatinization as it occurs in different dough types • formula balance and ingredient addition sequence • impact of ingredient cost and yields on profit margin • process parameters and their effect, such as starting and finishing temperatures of ingredients and dough, the amount of work input/mixing time, and factors, such as time, temperature and humidity during each proving stage, and during baking, depanning and cooling • storage and handling conditions for raw ingredients and finished product • procedures for reworking or disposing of unacceptable product • factors that can affect shelf-life, including: <ul style="list-style-type: none"> ➢ ingredients used ➢ bread types ➢ storage conditions ➢ packaging • environmental factors
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • access workplace information relating to troubleshooting

	<ul style="list-style-type: none"> • select, fit and use personal protective clothing and/or equipment • use relevant observation and/or test methods to confirm raw ingredient characteristics • remove/isolate and report ingredients/materials of unacceptable quality • determine likely causes of unacceptable final product relating to raw ingredients • determine likely causes of unacceptable final product relating to the process and/or storage conditions • develop procedures to prevent or minimize the likelihood of recurrence of the problem • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Work Safely with Industrial Chemicals and Materials
Unit Code	IND BKG3 20 0613
Unit Descriptor	This unit covers using Personal Protective Equipment (PPE), identifying the particular hazards and emergency procedures, and observing safe working practices in that environment.

Elements	Performance Criteria
1. Use personal protective equipment	1.1. Correct and appropriate safety clothing including personal protective equipment is selected and used correctly based on information in relevant material safety data sheet (MSDS).
2. Identify emergency procedures	2.1. Emergency procedures and plan relevant to the particular work environment are documented, understood and demonstrated as laid down in approved safety instructions.
3. Observe safe working practices	<p>3.1. Hazardous areas and materials are identified and special handling procedures are identified and understood.</p> <p>3.2. Permits to work (if necessary) are obtained.</p> <p>3.3. All equipment and hazardous materials are used in accordance with relevant OHS legislation, manufacturers' instructions and standard operating procedures.</p> <p>3.4. All site-specific safety policies, safety signs, symbols and labels are correctly identified and understood.</p> <p>3.5. Material safety data sheets are understood and applied.</p> <p>3.6. Safe manual handling procedures (including equipment) are used.</p> <p>3.7. Decanted chemicals and storage is to State/Territory dangerous goods and OHS legislation and requirements.</p> <p>3.8. Housekeeping duties are performed according to standard operating procedures to maintain a safe working environment.</p>

Variable	Range
Personal protective equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • goggles/face shields • respirators • air supplied or self-contained helmets • safety boots, gloves and appropriate clothes/garments
Safe working practices	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Environment is inspected • Hazards (and chemical reactive hazards) are assessed and controlled using hierarchy of hazard control • Properly maintained PPE is available • Emergency management plan is documented/understood

	<ul style="list-style-type: none"> Work to be undertaken in safe 'thermal' environments and all possible ignition sources are to be identified and controlled
Storage	<p>May include but not limited to:</p> <ul style="list-style-type: none"> All storage containers (minor quantities and in consumer packages) are suitable for chemical exposure and are properly labeled and/or placarded. Chemical manifests are updated at completion of work activity
State or Territory legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> Appropriate OHS, dangerous goods acts and regulations, National standards, national dangerous goods transport codes and codes of practice

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> dangerous goods classification and labeling/pleading testing, use and maintenance of PPE inherent hazardous properties of the chemicals to be used interpretation of the relevant MSDS basic fire fighting procedures site-specific emergency plan procedures chemical spill confinement procedures dangerous occurrence (near miss) reporting procedures hierarchy of control
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> undertaking risk assessment communicating with others performing proper manual handling techniques interpreting safety signage, labeling and placarding
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> Interview / Written Test Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Use Numerical Applications in the Workplace
Unit Code	IND BKG3 21 0613
Unit Descriptor	This is unit of competency covers the skills and knowledge required to apply basic mathematical functions of addition, subtraction, multiplication and division to undertake workplace calculations or to estimate approximate answers when exact calculations are not required.

Elements	Performance Criteria
1. Apply basic mathematical concepts to calculate workplace information	1.1. Calculation requirements are identified and appropriate method is selected. 1.2. Data is obtained from relevant sources and interpreted correctly. 1.3. Calculations are undertaken using addition, subtraction, multiplication and division to support work role.
2. Apply basic mathematical concepts to estimate workplace information	2.1. Estimation requirements are identified and appropriate estimation method is selected. 2.2. Data is obtained from relevant sources and interpreted correctly. 2.3. Estimations are made to meet work requirements.

Variable	Range
Calculations	the use of whole numbers, decimals, fractions and percentages manually or using calculators and other measuring instruments as appropriate to the task
Estimations	May include but not limited to: <ul style="list-style-type: none"> • observations of other amounts or measurements • supplied data, such as volume or weight information on packaging of raw materials
Numerical information	May include but not limited to: <ul style="list-style-type: none"> • simple run charts and graphs

Evidence Guide	
Critical Aspects of Competence	Demonstrate skills and knowledge of: <ul style="list-style-type: none"> • identify calculation or estimation requirements • carry out calculations involving basic addition, subtraction, division and multiplication • where estimations are used, estimated amounts must be consistent with process or product specification and demonstrate knowledge of measurement units used in the workplace • Use estimation techniques to check calculated results and workplace data.

Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • mathematical processes, including addition, subtraction, multiplication and division • application of calculation and estimation techniques to meet work requirements • units of measurement used in the workplace, including whole numbers, fractions and decimals (to one decimal point) (this may include use of conversion charts) • representation of numerical information relevant to work requirements, such as charts, graphs and tables • recording requirements and responsibilities where relevant
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • identify whether a calculation or estimation is required to meet workplace requirements • carry out calculations involving basic addition, subtraction, division and multiplication to support work role (this may involve use of a calculator and conversion tables where required) • use estimation techniques to check quantities, ratios, speed and other required data estimates • use estimation techniques to check calculated results and workplace data • record calculations and measurement information accurately according to enterprise procedures • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Implement and Monitor Environmentally Sustainable Work Practices
Unit Code	IND BKG3 22 0613
Unit Descriptor	This competency covers the outcomes required to effectively analyze the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

Elements	Performance Criteria
1. Investigate current practices in relation to resource usage.	<p>1.1 Environmental regulations applying to the enterprise are identified.</p> <p>1.2 Procedures are assessed for assessing compliance with environmental regulations.</p> <p>1.3 Information on environmental and resource efficiency systems and procedures are collected, and provided to the work group where appropriate.</p> <p>1.4 Current resource usage is measured and recorded by members of the work group.</p> <p>1.5 Current purchasing strategies are analyzed and recorded.</p> <p>1.6 Current work processes are analyzed to access information and data and assist in identifying areas for improvement.</p>
2. Set targets for improvements.	<p>2.1 Input is sought from stakeholders, key personnel and specialists.</p> <p>2.2 External sources of information and data are accessed as required.</p> <p>2.3 Alternative solutions are evaluated to workplace environmental issues.</p> <p>2.4 Efficiency targets are set.</p>
3. Implement performance improvement strategies.	<p>3.1 Techniques/tools are sourced to assist in achieving targets.</p> <p>3.2 Continuous improvement strategies are applied to own work area of responsibility and ideas and possible solutions communicated to the work group and management.</p> <p>3.3 Environmental and resource efficiency improvement plans for own work group are integrated with other operational activities and implemented.</p> <p>3.4 Suggestions and ideas about environmental and resource efficiency management are sought from stakeholders and acted upon where appropriate.</p> <p>3.5 Costing strategies are implemented to fully value environmental assets.</p>

4. Monitor performance.	<p>4.1 Outcomes are documented and reports on targets communicated to key personnel and stakeholders.</p> <p>4.2 Strategies are evaluated.</p> <p>4.3 New targets are set and new tools and strategies are investigated and applied.</p> <p>4.4 Successful strategies and reward participants are promoted where possible.</p>
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Variable	Range
Procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • All operations are performed in accordance with procedures. • Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards. • Where reference is made to industry codes of practice, and/or Ethiopian/international standards, the latest version must be used.
Compliance	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Compliance includes meeting relevant federal, state and local government laws, by-laws, regulations and codes of practice.
Environmental regulation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • addressing environmental and resource sustainability initiatives such as Environmental Management Systems, action plans, surveys and audits • reference to standards, guidelines and approaches • determining enterprise's most appropriate waste treatment including waste to landfill, recycling, re-use and wastewater treatment • applying the waste management hierarchy in the workplace • initiating and/or maintaining appropriate enterprise procedures for operational energy consumption, including stationary energy and non stationary (transport) • efficient use of water • minimizing greenhouse gas emissions • use of controls to minimize the risk of environmental damage from hazardous substances
Measure	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • material fed to/consumed by plant/equipment • plant meters and gauges • job cards including kan bans • examination of invoices from suppliers • measurements made under different conditions • examination of relevant information and data • Others as appropriate to the specific industry contexts.

Techniques and tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • visual workplace concepts • measurement, display and/or recording devices • changed work practices/procedures • competence development and awareness training • process and equipment items
Stakeholders, key personnel and specialists	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • employees at all levels of the organization • customers • suppliers • other organizations • key personnel within the organization, and specialists outside it who may have particular technical expertise
Purchasing strategies	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • influencing suppliers to take up environmental sustainability • selecting materials/components with a lower environmental profile
Suggestions	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • prevent and minimize environmental risks and maximize opportunities • reduce emissions of greenhouse gases • reduce use of non-renewable resources • make more efficient use of energy, water and other resources • maximize opportunities to re use and recycle materials • identify strategies to offset or mitigate environmental impacts. e.g. purchasing of carbon credits • Express purchasing power through the selection of suppliers with improved environmental performance. e.g. purchasing renewable energy and materials with lower embedded carbon • Eliminate the use of hazardous and toxic materials increasing the reusability/recyclability of wastes/products.

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • monitor and investigate current resource usage • develop plans to improve sustainability • Implement environmental improvements. • Consistent performance should be demonstrated. For example, look to see that: • environmental performance is routinely monitored and investigated • Areas for improvements are followed through and the implemented changes are in turn monitored and investigated.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • how to access and use relevant environmental and resource efficiency systems, tools and procedures

	<ul style="list-style-type: none"> • best practice approaches relevant to own area of responsibility • strategies to maximize opportunities and minimize impacts relevant to own work area • relevant environmental and resource efficiency issues specific to industry practices • methods for measuring and calculating resource usage
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • using relevant environmental and resource efficiency systems, tools and procedures • applying quality assurance systems relevant to own work area • applying relevant supply chain procedures • measurement and calculation techniques • communication/consultation skills to ensure information is supplied to the work group • Reading and writing is required to comprehend documentation and interpret environmental and energy efficiency requirements and to document and maintain records • Numeracy is required to interpret numeric workplace information, readings and measurements, handle data as required and complete numeric components of workplace forms/reports.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Apply First Aid
Unit Code	IND BKG3 23 0613
Unit Descriptor	This unit of competency describes the skills and knowledge required to provide first aid response, life support, management of casualty(s), the incident and other first aiders, until the arrival of medical or other assistance

Elements	Performance Criteria
1. Assess the situation	<p>1.1 Hazards in the situation that may pose a risk of injury or illness to self and others are identified assessed and minimized.</p> <p>1.2 Immediate risk to self and casualty's health and safety is minimized by controlling any hazard in accordance with occupational health and safety requirements.</p> <p>1.3 Casualty is assessed and injuries, illnesses and conditions are identified.</p>
2. Apply first aid procedures	<p>2.1 Information is calmly provided to reassure casualty, adopting a communication style to match the casualty's level of consciousness.</p> <p>2.2 Available resources and equipment are used to make the casualty as comfortable as possible.</p> <p>2.3 Respond to the casualty in a culturally aware, sensitive and respectful manner.</p> <p>2.4 The nature of casualty's injury/condition and relevant first aid procedures is determined and explained to provide comfort.</p> <p>2.5 Consent is sought from casualty prior to applying first aid management.</p> <p>2.6 First aid management is provided in accordance with established first aid principles and Guidelines and/or State/Territory regulations, legislation and policies and industry requirements.</p> <p>2.7 First aid assistance is sought from others in a timely manner and as appropriate.</p> <p>2.8 First aid equipment is correctly operated as required for first aid management according to manufacturer/supplier's instructions and local policies and/or procedures.</p> <p>2.9 Safe manual handling techniques are used as required.</p> <p>2.10 Casualty's condition is monitored and responded in accordance with effective first aid principles and procedures.</p> <p>2.11 Casualty management is finalized according to casualty's needs and first aid principles.</p>

3. Communicate details of the incident	<p>3.1 Ambulance support and/or appropriate medical assistance are requested according to relevant circumstances using relevant communication media and equipment.</p> <p>3.2 Assessment of casualty's condition and management activities is accurately conveyed to ambulance services /other emergency services/relieving personnel.</p> <p>3.3 Reports are prepared as appropriate in a timely manner, presenting all relevant facts according to established procedures.</p> <p>3.4 Details of casualty's physical condition, changes in conditions, management and response to management are accurately recorded in line with the established procedures.</p> <p>3.5 Confidentiality of records and information is maintained in line with privacy principles and statutory and/or organization policies.</p>
4. Evaluate own performance	<p>4.1 Feedback is sought from appropriate clinical expert.</p> <p>4.2 The possible psychological impacts on rescuers of involvement in critical incidents are recognized.</p> <p>4.3 Participate in debriefing/evaluation as appropriate to improve future response and address individual needs.</p>

Variable	Range
A hazard	May include but not limited to: <ul style="list-style-type: none"> • A source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these
Hazards	May include but not limited to: <ul style="list-style-type: none"> • Physical hazards • Biological hazards • Chemical hazards • Hazards associated with manual handling
Risks	May include but not limited to: <ul style="list-style-type: none"> • Risks from equipment, machinery and substances • Risks from first aid equipment • Environmental risks • Exposure to blood and other body substances • Risk of further injury to the casualty • Risks associated with the proximity of other workers and bystanders • Risks from vehicles
Resources and equipment are used appropriately	May include but not limited to: <ul style="list-style-type: none"> • AED • First aid kit

	<ul style="list-style-type: none"> • Auto-injector • Puffer/inhaler • Resuscitation mask or barrier • Spacer device 		
First aid management	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • The setting in which first aid is provided, including: <ul style="list-style-type: none"> • workplace policies and procedures • industry/site specific regulations, codes etc. • OHS requirements • state and territory workplace health and safety legislative requirements • location and nature of the incident • situational risks associated with, for example, electrical and biological hazards, weather, motor vehicle accidents • location of emergency services personnel. • The use and availability of first aid equipment and resources • Infection control • Legal and social responsibilities of first aider 		
Established first aid principles	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Preserve life • Prevent illness, injury and condition(s) becoming worse • Promote recovery • Protect the unconscious casualty 		
Casualty's condition	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Abdominal injuries • Airway obstruction • Allergic reactions • Altered and loss of consciousness • Bleeding • Burns - thermal, chemical, friction, electrical • Chest pain/cardiac arrest • Injuries: cold and crush injuries; eye and ear injuries; head, neck and spinal injuries; minor skin injuries; needle stick injuries; soft tissue injuries including sprains, strains, dislocations • Near drowning • Envenomation - snake, spider, insect and marine bites • Environmental conditions such as hypothermia, hyperthermia, dehydration, heat stroke • Fractures • Medical conditions, including cardiac conditions, epilepsy, diabetes, asthma and other respiratory conditions • No signs of life • Poisoning and toxic substances (including chemical contamination) • Respiratory distress/arrest 		
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	<ul style="list-style-type: none"> • Seizures • Shock • Stroke • Substance misuse - common drugs and alcohol, including illicit drugs.
Communication media and equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Telephones, including landline, mobile and satellite phones • HF/VHF radio • Flags • Flares • Two way radio • Email • Electronic equipment • Hand signals
Appropriate clinical expert	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Supervisor/manager • Ambulance officer/paramedic • Other medical/health worker
Vital signs	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Consciousness • Breathing • Circulation
Documentation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Injury report forms • Workplace documents as per organization requirements • Time • Location • Description of injury • First aid management • Fluid intake/output, including fluid loss via: <ul style="list-style-type: none"> • blood • vomit • faces • urine • Administration of medication including: <ul style="list-style-type: none"> • time • date • person administering • dose and vital signs

Evidence Guide			
Critical Aspects of Competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • The individual being assessed must provide evidence of specified essential knowledge as well as skills • Competence should be demonstrated working individually and, where appropriate, as part of a first aid team 		
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	<ul style="list-style-type: none"> • Consistency of performance should be demonstrated over the required range of situations relevant to the workplace or community setting • Currency of first aid knowledge and skills is to be demonstrated in line with State/Territory regulations, legislation and policies, and industry guidelines
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • National Guidelines relating to provision of first aid as outlined • Awareness of stress management techniques and available support • First aid management of: <ul style="list-style-type: none"> • abdominal injuries • allergic reactions • altered and loss of consciousness • bleeding • burns - thermal, chemical, friction, electrical • cardiac arrest • casualty with no signs of life • chest pain • choking/airway obstruction • injuries: cold and crush injuries; eye and ear injuries; head, neck and spinal injuries; minor skin injuries; needle stick injuries; soft tissue injuries including sprains, strains, dislocations • envenomation - snake, spider, insect and marine bites • environmental impact such as hypothermia, hyperthermia, dehydration, heat stroke • fractures • medical conditions, including cardiac conditions, epilepsy, diabetes, asthma and other respiratory conditions • near drowning • poisoning and toxic substances (including chemical contamination) • respiratory distress • seizures • shock • stroke • substance misuse - common drugs and alcohol, including illicit drugs • Social/legal issues: <ul style="list-style-type: none"> • duty of care • need to be culturally aware, sensitive and respectful • importance of debriefing • confidentiality • own skills and limitations

	<ul style="list-style-type: none"> • Understanding of the use of an Automated External Defibrillator (AED), including when to use and when not to • basic occupational health and safety requirements in the provision of first aid • basic principles and concepts underlying the practice of first aid • chain of survival • first aiders' skills and limitations • infection control principles and procedures, including use of standard precautions • priorities of management in first aid when dealing with life threatening conditions • procedures for dealing with major and minor injury and illness
Underpinning Skills	<p>Demonstrate Skills of/to:</p> <ul style="list-style-type: none"> • Administer medication in line with state/territory regulations, legislation and policies • Apply first aid principles • Call an ambulance and/or medical assistance according to relevant circumstances and report casualty's condition • Communicate effectively and assertively in an incident • Conduct an initial casualty assessment • Demonstrate correct procedures for performing CPR using a manikin, including standard precautions • ability to call an ambulance • consideration of the welfare of the casualty • safe manual handling • site management to prevent further injury • Evaluate own response and identify appropriate improvements where required • Follow OHS guidelines • Infection control, including use of standard precautions • Make prompt and appropriate decisions relating to managing an incident in the workplace • Plan an appropriate first aid response in line with established first aid principles, policies and procedures, ARC Guidelines and/or State/Territory regulations, legislation and policies and industry requirements and respond appropriately to contingencies in line with own skills • Prepare a written incident report or provide information to enable preparation of an incident report • Provide assistance with self-medication as per subject's own medication regime and in line with State/Territory legislation, regulations and policies and any available medical/pharmaceutical instructions • Use literacy and numeracy skills as required to read, interpret and apply guidelines and protocols

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Monitor Implementation of Work plan/Activities
Unit Code	IND BKG3 24 0613
Unit Descriptor	This unit covers competence required to oversee and monitor the quality of work operations within an enterprise. This unit may be carried out by team leaders or supervisors.

Elements	Performance Criteria
1. Monitor and improve workplace operations	<p>1.1 Efficiency and service levels are monitored on an ongoing basis.</p> <p>1.2 Operations in the workplace support overall enterprise goals and quality assurance initiatives.</p> <p>1.3 Quality problems and issues are promptly identified and adjustments are made accordingly.</p> <p>1.4 Procedures and systems are changed in consultation with colleagues to improve efficiency and effectiveness.</p> <p>1.5 Colleagues are consulted about ways to improve efficiency and service levels.</p>
2. Plan and organise workflow	<p>2.1 Current workload of colleagues is accurately assessed.</p> <p>2.2 Work is scheduled in a manner which enhances efficiency and customer service quality.</p> <p>2.3 Work is delegated to appropriate people in accordance with principles of delegation.</p> <p>2.4 Workflow is assessed against agreed objectives and timelines and colleagues are assisted in prioritisation of workload.</p> <p>2.5 Input is provided to appropriate management regarding staffing needs.</p>
3. Maintain workplace records	<p>3.1 Workplace records are accurately completed and submitted within required timeframes.</p> <p>3.2 Where appropriate completion of records is delegated and monitored prior to submission.</p>
4. Solve problems and make decisions	<p>4.1 Workplace problems are promptly identified and considered from an operational and customer service perspective.</p> <p>4.2 Short term action is initiated to resolve the immediate problem where appropriate.</p> <p>4.3 Problems are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues.</p> <p>4.4 Where problem is raised by a team member, they are encouraged to participate in solving the problem.</p> <p>4.5 Follow up action is taken to monitor the effectiveness of solutions in the workplace.</p>

Variables	Range
Problems	May include but not limited to: <ul style="list-style-type: none"> • difficult customer service situations • equipment breakdown/technical failure • delays and time difficulties • competence
Workplace records	May include but is not limited to: <ul style="list-style-type: none"> • staff records and regular performance reports

Evidence Guide	
Critical Aspects of Competence	Assessment must confirm appropriate knowledge and skills to: <ul style="list-style-type: none"> • ability to effectively monitor and respond to a range of common operational and service issues in the workplace • understanding of the role of staff involved in workplace monitoring • knowledge of quality assurance, principles of workflow planning, delegation and problem solving
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • roles and responsibilities in monitoring work operations • overview of leadership and management responsibilities • principles of work planning and principles of delegation • typical work organization methods appropriate to the sector • quality assurance principles and time management • problem solving and decision making processes • industrial and/or legislative issues which affect short term work organization as appropriate to industry sector
Underpinning Skills	Demonstrate skills to: <ul style="list-style-type: none"> • monitoring and improving workplace operations • planning and organizing workflow • maintaining workplace records
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting

Occupational Standard: Baking Level III	
Unit Title	Apply Quality Control
Unit Code	IND BKG3 25 0613
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in applying quality control in manufacturing works.

Elements	Performance Criteria
1. Implement quality standards	<p>1.1 Agreed quality standard and procedures are acquired and confirmed.</p> <p>1.2 Standard procedures are introduced to organizational staff / personnel.</p> <p>1.3 Quality standard and procedures documents are provided to employees in accordance with the organization policy.</p> <p>1.4 Standard procedures are revised / updated when necessary.</p>
2. Assess quality of service delivered	<p>2.1 Services delivered are checked against organization quality standards and specifications.</p> <p>2.2 Service delivered are evaluated using the appropriate evaluation parameters and in accordance with organization standards.</p> <p>2.3 Causes of any identified faults are identified and corrective actions are taken in accordance with organization policies and procedures.</p>
3. Record information	<p>3.1 Basic information on the quality performance is recorded in accordance with organization procedures.</p> <p>3.2 Records of work quality are maintained according to the requirements of the organization.</p>
4. Study causes of quality deviations	<p>4.1 Causes of deviations from final outputs or services are investigated and reported in accordance with organization procedures.</p> <p>4.2 Suitable preventive action is recommended based on organization quality standards and identified causes of deviation from specified quality standards of final service or output.</p>
5. Complete documentation	<p>5.1 Information on quality and other indicators of service performance is recorded.</p> <p>5.2 All service processes and outcomes are recorded.</p>

Variable	Range
Quality check	<ul style="list-style-type: none"> • Check against design / specifications • Visual inspection and Physical inspection

Quality standards	<ul style="list-style-type: none"> • materials • components • process • procedures
Quality parameters	<ul style="list-style-type: none"> • standard design / specifications • material specification

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Check completed work continuously against organization standard • Identify and isolate faulty or poor service • Check service delivered against organization standards • Identify and apply corrective actions on the causes of identified faults or error • Record basic information regarding quality performance • Investigate causes of deviations of services against standard • Recommend suitable preventive actions
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Relevant quality standards, policies and procedures • Characteristics of services • Safety environment aspects of service processes • Evaluation techniques and quality checking procedures • Workplace procedures and reporting procedures
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • interpret work instructions, specifications and standards appropriate to the required work or service • carry out relevant performance evaluation • maintain accurate work records • meet work specifications and requirements • communicate effectively within defined workplace procedures
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Lead Workplace Communication
Unit Code	IND BKG3 26 0613
Unit Descriptor	This unit covers the knowledge, attitudes and skills needed to lead in the dissemination and discussion of information and issues in the workplace.

Elements	Performance Criteria
1. Communicate information about workplace processes	1.1 Appropriate communication method is selected. 1.2 Multiple operations involving several topics areas are communicated accordingly. 1.3 Questions are used to gain extra information. 1.4 Correct sources of information are identified. 1.5 Information is selected and organized correctly. 1.6 Verbal and written reporting is undertaken when required. 1.7 Communication skills are maintained in all situations.
2. Lead workplace discussion	2.1 Response to workplace issues is sought. 2.2 Response to workplace issues are provided immediately. 2.3 Constructive contributions are made to workplace discussions on such issues as production, quality and safety. 2.4 Goals/objectives and action plan undertaken in the workplace are communicated.
3. Identify and communicate issues arising in the workplace	3.1 Issues and problems are identified as they arise. 3.2 Information regarding problems and issues are organized coherently to ensure clear and effective communication. 3.3 Dialogue is initiated with appropriate staff/personnel. 3.4 Communication problems and issues are raised as they arise.

Variable	Range
Methods of communication	<ul style="list-style-type: none"> • Non-verbal gestures • Verbal • Face to face • Two-way radio • Speaking to groups • Using telephone • Written • Using Internet • Cell phone

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge to: <ul style="list-style-type: none"> • Deal with a range of communication/information at one time • Make constructive contributions in workplace issues • Seek workplace issues effectively

	<ul style="list-style-type: none"> • Respond to workplace issues promptly • Present information clearly and effectively written form • Use appropriate sources of information • Ask appropriate questions • Provide accurate information
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Organization requirements for written and electronic communication methods • Effective verbal communication methods
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Organize information • Understand and convey intended meaning • Participate in variety of workplace discussions • Comply with organization requirements for the use of written and electronic communication methods
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Lead Small Teams
Unit Code	IND BKG3 27 0613
Unit Descriptor	This unit covers the knowledge, attitudes and skills to lead small teams including setting and maintaining team and individual performance standards.

Elements	Performance Criteria
1. Provide team leadership	<p>1.1 Work requirements are identified and presented to team members.</p> <p>1.2 Reasons for instructions and requirements are communicated to team members.</p> <p>1.3 Team members' queries and concerns are recognized, discussed and dealt with.</p>
2. Assign responsibilities	<p>2.1 Duties and responsibilities are allocated having regard to the skills, knowledge and aptitude required to properly undertake the assigned task and according to company policy.</p> <p>2.2 Duties are allocated having regard to individual preference, domestic and personal considerations, whenever possible.</p>
3. Set performance expectations for team members	<p>3.1 Performance expectations are established based on client needs and according to assignment requirements.</p> <p>3.2 Performance expectations are based on individual team members' duties and area of responsibility.</p> <p>3.3 Performance expectations are discussed and disseminated to individual team members.</p>
4. Supervised team performance	<p>4.1 Monitoring of performance takes place against defined performance criteria and/or assignment instructions and corrective action taken if required.</p> <p>4.2 Team members are provided with feedback, positive support and advice on strategies to overcome any deficiencies.</p> <p>4.3 Performance issues which cannot be rectified or addressed within the team are referenced to appropriate personnel according to employer policy.</p> <p>4.4 Team members are kept informed of any changes in the priority allocated to assignments or tasks which might impact on client/customer needs and satisfaction.</p> <p>4.5 Team operations are monitored to ensure that employer/ client needs and requirements are met.</p> <p>4.6 Follow-up communication is provided on all issues affecting the team.</p> <p>4.7 All relevant documentation is completed in accordance with company procedures.</p>

Variable	Range
Work requirements	<ul style="list-style-type: none"> • client profile • assignment instructions
Team member's concerns	<ul style="list-style-type: none"> • roster/shift details
Monitor performance	<ul style="list-style-type: none"> • formal process • informal process
Feedback	<ul style="list-style-type: none"> • formal process • informal process

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate to:</p> <ul style="list-style-type: none"> • maintain or improve individuals and/or team performance given a variety of possible scenario • assess and monitor team and individual performance against set criteria • represent concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf • allocate duties and responsibilities, having regard to individual's knowledge, skills and aptitude and the needs of the tasks to be performed • set and communicate performance expectations for a range of tasks and duties within the team and provided feedback to team members
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • maintaining or improving individuals and/or team performance given a variety of possible scenario • assessing and monitoring team and individual performance against set criteria • representing concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf • allocating duties and responsibilities, having regard to individual's knowledge, skills and aptitude and the needs of the tasks to be performed • setting and communicating performance expectations for a range of tasks and duties within the team and providing feedback to team members
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> • communication skills required for leading teams • informal performance counseling skills • team building skills • negotiating skills

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level III	
Unit Title	Improve Business Practice
Unit Code	IND BKG3 28 0613
Unit Descriptor	This unit covers the skills, knowledge and attitudes required in promoting, improving and growing business operations.

Elements	Performance Criteria
1. Diagnose the business	<p>1.1 Data required for diagnosis is determined and acquired.</p> <p>1.2 Competitive advantage of the business is determined from the data.</p> <p>1.3 SWOT analysis of the data is undertaken.</p>
2. Benchmark the business	<p>2.1 Sources of relevant benchmarking data are identified.</p> <p>2.2 Key indicators for benchmarking are selected in consultation with key stakeholders.</p> <p>2.3 Like indicators of own practice are compared with benchmark indicators.</p> <p>2.4 Areas for improvement are identified.</p>
3. Develop plans to improve business performance	<p>3.1 A consolidated list of required improvements is developed.</p> <p>3.2 Cost-benefit ratios for required improvements are determined.</p> <p>3.3 Work flow changes resulting from proposed improvements are determined.</p> <p>3.4 Proposed improvements are ranked according to agreed criteria.</p> <p>3.5 An action plan to implement the top ranked improvements is developed and agreed.</p> <p>3.6 Organizational structures are checked to ensure they are suitable.</p>
4. Develop marketing and promotional plans	<p>4.1 The practice vision statement is reviewed.</p> <p>4.2 Practice objectives are developed/reviewed.</p> <p>4.3 Target markets are identified/refined.</p> <p>4.4 Market research data is obtained.</p> <p>4.5 Competitor analysis is obtained.</p> <p>4.6 Market position is developed/reviewed.</p> <p>4.7 Practice brand is developed.</p> <p>4.8 Benefits of practice/practice products/services are identified.</p> <p>4.9 Promotion tools are selected/developed.</p>

5. Develop business growth plans	<p>5.1 Plans to increase <i>yield per existing client</i> are developed.</p> <p>5.2 Plans to add new clients are developed.</p> <p>5.3 Proposed plans are ranked according to agreed criteria.</p> <p>5.4 An action plan to implement the top ranked plans is developed and agreed.</p> <p>5.5 Practice work practices are reviewed to ensure they support growth plans.</p>
6. Implement and monitor plans	<p>6.1 Implementation plan is developed in consultation with all relevant stakeholders.</p> <p>6.2 Indicators of success of the plan are agreed.</p> <p>6.3 Implementation is monitored against agreed indicators.</p> <p>6.4 Implementation is adjusted as required.</p>

Variable	Range
Data required includes:	<ul style="list-style-type: none"> • organization capability • appropriate business structure • level of client service which can be provided • internal policies, procedures and practices • staff levels, capabilities and structure • market, market definition • market changes/market segmentation • market consolidation/fragmentation • revenue • level of commercial activity • expected revenue levels, short and long term • revenue growth rate • break even data • pricing policy • revenue assumptions • business environment • economic conditions • social factors • demographic factors • technological impacts • political/legislative/regulative impacts • competitors, competitor pricing and response to pricing • competitor marketing/branding • competitor products
Competitive advantage includes:	<ul style="list-style-type: none"> • services/products • fees • location • timeframe

Objectives should be 'SMART' , that	<ul style="list-style-type: none"> • Specific • Measurable • Achievable • Realistic • Time defined
Market research data includes:	<ul style="list-style-type: none"> • data about existing clients • data about possible new clients • data from internal sources • data from external sources such as: <ul style="list-style-type: none"> • trade associations/journals • Yellow Pages small business surveys • libraries • Internet • Chamber of Commerce • client surveys • industry reports • secondary market research • primary market research such as: <ul style="list-style-type: none"> ➤ telephone surveys ➤ personal interviews ➤ mail surveys
Competitor analysis	<ul style="list-style-type: none"> • competitor offerings • competitor promotion strategies and activities • competitor profile in the market place
SWOT analysis includes:	<ul style="list-style-type: none"> • internal strengths such as staff capability, recognized quality • internal weaknesses such as poor morale, under-capitalization, poor technology • external opportunities such as changing market and economic conditions • external threats such as industry fee structures, strategic alliances, competitor marketing
Key indicators may include:	<ul style="list-style-type: none"> • salary cost and staffing • personnel productivity (particularly of principals) • profitability • fee structure • client base • size staff/principal • overhead/overhead control
Organizational structures include:	<ul style="list-style-type: none"> • legal structure (partnership, limited liability company, etc.) • organizational structure/hierarchy • reward schemes
Market position should include data on:	<ul style="list-style-type: none"> • product • the good or service provided • product mix

	<ul style="list-style-type: none"> • the core product - what is bought • the tangible product - what is perceived • the augmented product - total package of consumer • features/benefits • product differentiation from competitive products • new/changed products • price and pricing strategies (cost plus, supply/demand, ability to pay, etc.) • pricing objectives (profit, market penetration, etc.) • cost components • market position • distribution strategies • marketing channels • promotion • promotional strategies • target audience • communication • promotion budget
Practice brand may include:	<ul style="list-style-type: none"> • practice image • practice logo/letter head/signage • phone answering protocol • facility decor • slogans • templates for communication/invoicing • style guide • writing style • AIDA (Attention, Interest, Desire, Action)
Benefits may include:	<ul style="list-style-type: none"> • features as perceived by the client • benefits as perceived by the client
Promotion tools include:	<ul style="list-style-type: none"> • networking and referrals • seminars • advertising • press releases • publicity and sponsorship • brochures • newsletters (print and/or electronic) • websites • direct mail • telemarketing/cold calling
Yield per existing client may be increased by:	<ul style="list-style-type: none"> • raising charge out rates/fees • packaging fees • reduce discounts • sell more services to existing clients

Evidence Guide	
Critical Aspects of Competence	<p>The candidate must be able to demonstrate:</p> <ul style="list-style-type: none"> • ability to identify the key indicators of business performance • ability to identify the key market data for the business • knowledge of a wide range of available information sources • ability to acquire information not readily available within a business • ability to analyze data and determine areas of improvement • ability to negotiate required improvements to ensure implementation • ability to evaluate systems against practice requirements and form recommendations and/or make recommendations • ability to assess the accuracy and relevance of information
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • data analysis and manipulation • computer skills to manipulate data and present information • problem solving • marketing principles • current product and marketing mix • use of market intelligence • development and implementation strategies of promotion and growth plans
Underpinning Skills	<p>Demonstrates skill in:</p> <ul style="list-style-type: none"> • ability to acquire and interpret required data, current practice systems and structures and sources of relevant benchmarking data • applying methods of selecting relevant key benchmarking indicators • communication skills • working and consulting with others when developing plans for the business • planning skills, negotiation skills and problem solving • using computers to manipulate, present and distribute information
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the workplace or in a simulated workplace setting.</p>

Occupational Standard: Baking Level III	
Unit Title	Prevent and Eliminate MUDA
Unit Code	IND BKG3 29 0613
Unit Descriptor	This unit of competence covers the knowledge, skills and attitude required by a worker to prevent and eliminate MUDA/wastes in his/her their workplace. It covers responsibility for the day-to-day operation of the work and ensures Kaizen elements are continuously improved and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	<p>1.1 Work instructions are used to determine job requirements, including method, material and equipment.</p> <p>1.2 Job specifications are read and interpreted following working manual.</p> <p>1.3 OHS requirements, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.</p> <p>1.4 Appropriate material is selected for work.</p> <p>1.5 Safety equipment and tools are identified and checked for safe and effective operation.</p>
2. Identify MUDA.	<p>2.1 Plan of MUDA identification is prepared and implemented.</p> <p>2.2 Causes and effects of MUDA are discussed.</p> <p>2.3 Tools and techniques are used to draw and analyze current situation of the work place.</p> <p>2.4 Wastes/MUDA are identified and measured based on relevant procedures.</p> <p>2.5 Identified and measured wastes are reported to relevant personnel.</p>
3. Eliminate wastes/MUDA.	<p>3. 1. Plan of MUDA elimination is prepared and implemented.</p> <p>3. 2. Necessary attitude and the ten basic principles for improvement are adopted to eliminate waste/MUDA.</p> <p>3. 3. Tools and techniques are used to eliminate wastes/MUDA based on the procedures and OHS.</p> <p>3. 4. Wastes/MUDA are reduced and eliminated in accordance with OHS and organizational requirements.</p> <p>3. 5. Improvements gained by elimination of waste/MUDA are reported to relevant bodies.</p>
4. Prevent occurrence of wastes/MUDA.	<p>4.1 Plan of MUDA prevention is prepared and implemented.</p> <p>4.2 Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement are discussed and prepared.</p>

	<p>4.3 Occurrences of wastes/MUDA are prevented by using visual and auditory control methods.</p> <p>4.4 Waste-free workplace is created using 5W and 1H sheet.</p> <p>4.5 The completion of required operation is done in accordance with standard procedures and practices.</p> <p>4.6 The updating of standard procedures and practices is facilitated.</p> <p>4.7 The capability of the work team that aligns with the requirements of the procedure is ensured.</p>
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Variable	Range
OHS requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances. • Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices. • Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization. • Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.
Safety equipment and tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • dust masks / goggles and glove • working cloth • first aid • safety shoes
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Plant Layout • Process flow • Other Analysis tools • Do time study by work element • Measure Travel distance • Take a photo of workplace • Measure Total steps • Make list of items/products, who produces them and who uses them & those in warehouses, storages etc. • Focal points to Check and find out existing problems

	<ul style="list-style-type: none"> • 5S • Layout improvement • Brainstorming • Andon • U-line • In-lining • Unification • Multi-process handling & Multi-skilled operators • A.B. control (Two point control) • Cell production line • TPM (Total Productive Maintenance)
Relevant procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Make waste visible • Be conscious of the waste • Be accountable for the waste. • Measure the waste.
The ten basic principles for improvement	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Throw out all of your fixed ideas about how to do things. • Think of how the new method will work- not how it won. • Don't accept excuses. Totally deny the status quo. • Don't seek perfection. A 50 percent implementation rate is fine as long as it's done on the spot. • Correct mistakes the moment they are found. • Don't spend a lot of money on improvements. • Problems give you a chance to use your brain. • Ask "why?" at least five times until you find the ultimate cause. • Ten people's ideas are better than one person's. • Improvement knows no limits.
Visual and auditory control methods	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Red Tagging • Sign boards • Outlining • Andons • Kanban, etc.
5W and 1H	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Who • What • Where • When • Why • How

Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> • discuss why wastes occur in the workplace 		
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	<ul style="list-style-type: none"> • discuss causes and effects of wastes/MUDA in the workplace • analyze the current situation of the workplace by using appropriate tools and techniques • identify, measure, eliminate and prevent occurrence of wastes by using appropriate tools and techniques • use 5W and 1H sheet to prevent
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • Targets of customers and manufacturer/service provider • Traditional and kaizen thinking of price setting • Kaizen thinking in relation to targets of manufacturer/service provider and customer • value • The three categories of operations • the 3“MU” • waste/MUDA • wastes occur in the workplace • The 7 types of MUDA • The Benefits of identifying and eliminating waste • Causes and effects of 7 MUDA • Procedures to identify MUDA • Necessary attitude and the ten basic principles for improvement • Procedures to eliminate MUDA • Prevention of wastes • Methods of waste prevention • Definition and purpose of standardization • Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement • Methods of visual and auditory control • TPM concept and its pillars. • Relevant OHS and environment requirements • Plan and report • Method of communication
<p>Underpinning Skills</p>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • draw & analyze current situation of the work place • use measurement apparatus (stop watch, tape, etc.) • calculate volume and area • use and follow checklists to identify, measure and eliminate wastes/MUDA • identify and measure wastes/MUDA in accordance with OHS and procedures • use tools and techniques to eliminate wastes/MUDA in accordance with OHS procedure • apply 5W and 1H sheet • update and use standard procedures for completion of required operation

	<ul style="list-style-type: none"> • work with others • read and interpret documents • observe situations • solve problems • communicate • gather evidence by using different means • report activities and results using report formats
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

NTQF Level IV

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Occupational Standard: Baking Level IV	
Unit Title	Apply Marketing Principles to Retail Bakery
Unit Code	IND BKG4 01 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to examine marketplace influences on retail bakeries and determine strategies for promotion and marketing of retail bakery products.

Elements	Performance Criteria
1. Analyze marketing goals and influences	<p>1.1 Information sources on industry trends are identified and accessed to inform retail baking research.</p> <p>1.2 The business plan is examined to determine marketing goals and strategies.</p> <p>1.3 Type of retail bakery operation is analyzed to determine impacts on promotional and marketing activities, including presentation and product display.</p> <p>1.4 Trends in retail baking product range are identified.</p> <p>1.5 Market influences on bakery products and presentation are examined.</p> <p>1.6 Trends and influences are analyzed to determine priorities for promotional and marketing activities.</p>
2. Analyze market conditions	<p>2.1 Information is gathered on local population and target market determined and consumer profile identified.</p> <p>2.2 Competing businesses are identified and market position and product range examined.</p> <p>2.3 Market segmentation for specific bakery products are identified.</p> <p>2.4 Consumer specific dietary needs are identified and impacts on retail baking determined.</p> <p>2.5 Specific Cultural and religious needs and influences on retail baking are identified and impacts on retail baking determined.</p> <p>2.6 Marketing opportunities are identified for retail bakery products and services.</p>
3. Confirm and price product and service range	<p>3.1 Selection of bakery products is confirmed to meet market needs.</p> <p>3.2 Type of service for bakery products is confirmed to meet market needs.</p> <p>3.3 Position in market is determined and product range is selected accordingly.</p>

	<p>3.4 Costs of production are accessed to determine product profitability.</p> <p>3.5 Prices of competitor products are identified and used to inform price point and market position.</p> <p>3.6 Costs for products are determined in accordance with production costs, market conditions and position.</p> <p>3.7 Process for ongoing monitoring of bakery performance is confirmed to inform product changes.</p>
4. Determine presentation for retail bakery	<p>4.1 Visual layout of bakery is designed to promote attractiveness and customer interest.</p> <p>4.2 Lighting, décor and showcases are selected to promote bakery appeal in accordance with marketing objectives.</p> <p>4.3 Promotional props and product information are provided to generate customer sales.</p>
5. Determine packaging and presentation of bakery products	<p>5.1 Types of packaging for bakery products are identified and assessed for suitability to meet market conditions.</p> <p>5.2 Labeling design and features are determined to meet consumer information requirements.</p> <p>5.3 Compliance of labeling and packaging with legislative requirements is confirmed.</p> <p>5.4 Display area is examined and suitability to meet consumer needs assessed.</p> <p>5.5 Options for display and visual presentation of bakery products are identified and strategy selected to maximize consumer appeal.</p>
6. Determine promotional mix for bakery products	<p>6.1 Key events influencing consumer bakery purchases are identified and product range selected.</p> <p>6.2 Consumer information requirements on bakery products are identified and strategies for meeting these needs are determined.</p> <p>6.3 Options for marketing and promotion of bakery products are examined and suitable strategies selected.</p> <p>6.4 Promotional ideas and options are documented.</p>

Variable	Range
Information sources	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • trade magazines and journals • networks and industry events • other businesses • internet

	<ul style="list-style-type: none"> • statistical data and population demographics • dietary and cultural information • colleagues and industry experts • business, marketing and promotional personnel
Specific dietary needs	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • low Glycemic Index (GI) • sugar free and fat free • dairy free • gluten free • rice flour • yeast free • low fat • low salt • vegetarian • vegan
Specific cultural and religious needs	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • foods prepared to cultural and religious dietary laws • national and regional food products • foods that mark significant events (e.g. Christmas, Ramadan, Easter, and weddings) • feasting • fasting • alcohol-free beverages • pork-free foods • beef-free foods
Competing businesses	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • cafes • restaurants • supermarkets • retail outlets • fast food chains • other bakeries
Visual presentation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • colors, pictures, wall hangings and fabrics • product posters and price lists • counter, showcases, racks and trays • tables, chairs and dining implements • flooring and lighting • outside areas and awnings • staff outfits and presentation

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • access and interpret industry information • analyze the business plan to determine marketing objectives and suitable marketing activity

	<ul style="list-style-type: none"> • identify key trends and influences on retail bakery • determine key features of target market • assess market conditions and position bakery • select suitable product range to meet the needs of target market • select showcases, displays and décor to meet marketing objectives • determine product pricing • Analyze and select promotional options for bakery, including presentation, packaging and sales strategies.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • information sources available to inform marketing activity • typical bakery products available to meet variety of consumer needs • promotional resources suitable for bakery operations • marketing principles and practices • labeling and packaging options and legislative requirements • dietary, cultural and religious influences on retail bakery product choice
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • access and interpret retail bakery business and market information • analyze research findings and make recommendations • analyze bakery business plan • conduct research into bakery operation and consumer base • make comparisons on product and service suitability • determine suitability of bakery décor and displays • cost and price bakery products • analyze labeling and packaging options and legislative requirements • assess suitability of promotional strategies • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Control Bakery Operations to Meet Quality and Production Requirements
Unit Code	IND BKG4 02 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to determine production targets and control production processes in order to meet retail bakery output requirements.

Elements	Performance Criteria
1. Establish production targets	<p>1.1 Sales history information is analyzed and current variables considered determining expected production targets.</p> <p>1.2 Special conditions that may affect production requirements are incorporated into production targets.</p> <p>1.3 Production targets are specified for product range.</p> <p>1.4 Production requirements for specialized product range are identified and incorporated into production planning.</p> <p>1.5 Quality criteria for product range are confirmed.</p> <p>1.6 Production targets are documented according to workplace practice.</p>
2. Determine requirements to meet production targets	<p>2.1 Ingredients required to meet production targets are identified and quantities calculated and documented.</p> <p>2.2 Current stock is assessed and material order requirements determined to meet operational requirements.</p> <p>2.3 Equipment requirements are determined and availability and operational readiness assessed.</p> <p>2.4 Labor requirements to meet production targets are determined.</p> <p>2.5 Specialized skill requirements are identified and resourced.</p> <p>2.6 Production process is mapped to determine flow requirements.</p>
3. Determine production processes	<p>3.1 Fermentation techniques are selected according to production requirements.</p> <p>3.2 Retarding strategies are selected according to production requirements.</p> <p>3.3 Strategies for the control and handling of frozen products are selected to meet operational requirements.</p> <p>3.4 Techniques for controlling retarding are implemented in the production process.</p> <p>3.5 Processes specified are in accordance with workplace environmental guidelines.</p>

4. Develop production schedule	<p>4.1 Production is scheduled to meet production targets in accordance with quantity and quality standards.</p> <p>4.2 Production schedule reflects bakery capacity and expected consumer purchase patterns.</p> <p>4.3 Production schedule is documented according to workplace practice.</p>
5. Manage production flow	<p>5.1 Production schedule is communicated to relevant staff members.</p> <p>5.2 Availability and readiness of all production requirements are arranged and confirmed.</p> <p>5.3 Production operations are monitored and assessed against production targets.</p> <p>5.4 Variances to operations are assessed for impact on production outcomes and action taken accordingly.</p> <p>5.5 Flow of product is monitored to ensure product quality is maintained.</p>
6. Assess production outputs	<p>6.1 Achievement of production schedule is assessed and variations determined and documented.</p> <p>6.2 Quality of bakery products is assessed against established standards.</p> <p>6.3 Production waste is monitored at each stage of production and waste reduction strategies determined.</p> <p>6.4 Outputs are documented with production scheduling information.</p>

Variable	Range
Sales history	May include but not limited to: <ul style="list-style-type: none"> • number of products sold over a given period • pattern of sales over the course of a day
Special conditions	May include but not limited to: <ul style="list-style-type: none"> • weather conditions • special events or occasions affecting orders
Specialized product range	May include but not limited to: <ul style="list-style-type: none"> • products with specific dietary criteria (e.g. gluten free, flourless, wheat free, sugar free, vegetarian and low salt)
Production requirements for specialized product range	May include but not limited to: <ul style="list-style-type: none"> • use of specific equipment • absence of any traces of ingredients in equipment • use of specialized ingredients • additional preparation requirements
Retarding strategies	May include but not limited to: <ul style="list-style-type: none"> • use of frozen dough

	<ul style="list-style-type: none"> • retarding by temperature controls • fermentation strategies • selection of starters
Waste	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • time • ingredients • space • non-conforming product • human resources • energy
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • determine production targets and requirements to meet targets • conduct estimations and calculations to determine production requirements • determine dough making and retarding processes required for production • schedule production to meet customer requirements • communicate production requirements and ensure resources are available • monitor production to ensure targets are achieved • address any non-conformance to meeting production targets • assess waste in production processes • Apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • sources of information on sales performance, history and special events • methods used to regulate dough/batter maturation and proofing, including formulation, temperature control and time • production schedule formats and level of detail as appropriate to meet workplace scheduling requirements • baking processes and stages to match production to optimal timing and equipment capacity • monitoring procedures and quality standards
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • identify relevant information, such as sales volumes and purchasing patterns and any conditions that could influence sales • estimate how much and what type of product is required and the time it should be available

	<ul style="list-style-type: none"> • calculate dough weight compared to finished product weight • determine optimum batch size, number and timing, taking account of process stages, equipment capacity and availability of labor • produce or complete a production schedule covering each stage of the production process • regulate dough/batter maturity and proofing of yeast products so they arrive at the oven at the optimum time and condition • develop a production schedule • ensure availability of stock, human and material resources and equipment in order to meet production requirements • monitor operations and address variations to production schedule • compare outcomes against standards and targets • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply Baking Science to Work Practices
Unit Code	IND BKG4 03 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to apply principles of food science relevant to the production of bakery products.

Elements	Performance Criteria
1. Select and use ingredients to ensure quality outcomes	<p>1.1 Impact of ingredients on final product is identified and considered in selection, measurement and use to meet workplace requirements.</p> <p>1.2 Processes used in the manufacture of ingredients and their impact on quality are identified and considered in the selection of ingredients to meet operational requirements.</p> <p>1.3 Types of food additives and corresponding E numbers used in bakery products, their functions and possible reactions are considered in the selection of ingredients to meet production requirements.</p> <p>1.4 Reactions and properties of sugars, proteins and fats can be identified and tracked through baking production processes as per production requirements.</p> <p>1.5 Properties of common emulsions, suspensions and solutions and their impacts on quality are considered in the selection of ingredients to meet quality requirements.</p> <p>1.6 Common chemical reactions and factors required to cause a reaction are managed to control impact on quality.</p> <p>1.7 Legal and quality requirements relating to use of ingredients and food additives are applied.</p> <p>1.8 Knowledge of ingredients, processes and interactions is used to predict product shelf life.</p> <p>1.9 Problems relating to ingredients are identified and addressed according to workplace requirements.</p>
2. Manage nutritional features of bakery products	<p>2.1 Public health and environmental hazards relating to bakery products are identified and controlled in bakery production as per legislative requirements.</p> <p>2.2 Intolerances to foods, artificial and natural additives used in baking products and typical reactions are identified and considered in product development and labeling to meet legislative requirements.</p>

	<p>2.3 Allergies and autoimmune diseases relating to bakery products and typical reactions are identified and considered in product development and labeling as per legislative requirements.</p> <p>2.4 Alternative ingredients, production processes and products are selected to cater to customers with intolerance and allergies as per workplace policies and procedures.</p> <p>2.5 Role of bakery products in diet and their nutritional features are determined.</p> <p>2.6 Regulations regarding nutritional labeling are applied.</p>
3. Control aspects of fermentation	<p>3.1 Role and science of fermentation in bakery products is identified and process variations applied to achieve different outcomes.</p> <p>3.2 Types of fermentation and features of process are examined and selected according to product requirements.</p> <p>3.3 Role of Lactic Acid Bacteria (LAB) in fermentation and influences/factors are identified and managed.</p> <p>3.4 Impact of different fermentation processes on the bakery product is considered in selection of production processes.</p>
4. Manage baking processes	<p>4.1 Role and science of retardation in bakery products is identified and process variations applied to achieve different outcomes.</p> <p>4.2 Role and science of freezing in bakery products is identified and process variations applied to achieve different outcomes.</p> <p>4.3 Impact of temperature, moisture and time on production and product outcome are considered in management of operations.</p> <p>4.4 Impacts of varying baking processes on production and product outcome are considered in production planning and management.</p> <p>4.5 Production problems are identified and addressed</p> <p>4.6 Processes specified are in accordance with workplace environmental guidelines.</p> <p>4.7 Baking processes are selected and managed to maximise production efficiencies.</p>

Variable	Range
Ingredients	May include but not limited to: <ul style="list-style-type: none"> • yeast • processing aids (e.g. enzymes)

	<ul style="list-style-type: none"> • functional ingredients • fat replacers • flours • water • salt • folic acid • eggs and egg by-products • fruit • nuts, seeds and cereals • oils and fats • improvers • emulsifiers • humectants • dairy products • essences, additives and preservatives • sugar and glucose • jams and fillings • spices
Bakery products	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • breads • cakes • biscuits and • pastry products
Autoimmune diseases	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • coeliac disease
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of Occupational Health and Safety (OHS) and environmental impacts
Aspects of fermentation	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • alcoholic fermentation • lactic acid fermentation: • facultative heterofermentative bacteria • obligate heterofermentative bacteria • obligate homofermentative bacteria • microbial growth kinetics (e.g. lag, log, peak and death stages) • metabolic activity

Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • identify bakery ingredients and describe their function and chemical changes through the production process
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	<ul style="list-style-type: none"> • describe the nutritional features of bakery ingredients and products • identify possible allergies and reactions to bakery products • describe key baking processes and how and why they impact on ingredients and the final product outcome • identify and address common issues and problems with ingredients and production processes.
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • types of ingredients and production processes used in bakery products • the functions of ingredients • what ‘E’ numbers are and how they apply to baking • range of allergies and intolerances to bakery products • the functions, interactions and potential problems associated with ingredients • coding and labeling systems used to describe ingredients and additives • the basic molecular structures of carbohydrates, proteins and fats • for a given production process, the processing stages designed to affect the structure of these compounds • information sources on allergies and intolerances relevant to baking products • dough rheology and physical dough testing data • determinants of bread quality • hydrogenation of fats and oils • shelf life prediction and testing • legal requirements relating to labeling used as established by the Food Standards Code • typical quantities used and related units of measurement • preparation requirements • mechanical and chemical aeration • health and nutrition issues related to ingredients • handling and processing conditions that affect the characteristics of ingredients • typical problems with ingredients and production processes
<p>Underpinning Skills</p>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • identify bakery ingredients and group them by function, including: <ul style="list-style-type: none"> ➤ proteins ➤ fats ➤ carbohydrates ➤ additives • identify the role of enzymes in generating biological reactions (e.g. amylase in bread)

	<ul style="list-style-type: none"> • read and interpret technical information to describe food properties and/or reactions, including recognizing and applying appropriate units of measurement and terms • review and/or establish procedures to describe storage, handling and processing conditions that affect the characteristics of ingredients, such as: <ul style="list-style-type: none"> ➤ changes in pH ➤ temperature change ➤ specific gravity ➤ exposure to light ➤ exposure to humidity ➤ packaging materials • review and/or establish procedures to describe the method of preparation and addition of ingredients to food products produced in the workplace • address production problems and determine root cause • use oral communication skills language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Produce Sourdough Products
Unit Code	IND BKG4 04 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to produce sourdough bakery products.

Elements	Performance Criteria
1. Examine features and processes in sourdough production	<p>1.1 Key differences between sourdough and straight dough products and the range of sourdough products are identified as per workplace requirements.</p> <p>1.2 Implications of using sourdough on production processes and requirements are identified as per production requirements.</p> <p>1.3 Techniques used to produce sourdough are examined and the range of outcomes identified as per workplace policies and procedures.</p> <p>1.4 Role of ingredients and bacteria in sourdough fermentation and types of yeast are identified.</p> <p>1.5 Benefits of sourdough products and organic ingredients are identified and marketing opportunities examined.</p>
2. Produce sourdough starter	<p>2.1 Process is selected for fermentation and development of sourdough starter.</p> <p>2.2 Flour and other ingredients are selected to refresh culture and achieve desired outcomes.</p> <p>2.3 Impacts of flour types, temperature, time and moisture on fermentation are described and typical problems identified.</p> <p>2.4 Ingredients and equipment are selected and prepared for use.</p> <p>2.5 Starter is generated and refreshed to achieve optimum fermentation activity.</p> <p>2.6 Appearance, size and aroma are examined to assess starter maturity.</p>
3. Prepare sourdough products	<p>3.1 Ingredients are selected, weighed and mixed according to production requirements.</p> <p>3.2 Bulk fermentation is conducted.</p> <p>3.3 Dough is divided, rested and moulded.</p> <p>3.4 Dough pieces are retarded according to anticipated sales requirements.</p> <p>3.5 Dough pieces are selected at optimum proof and baked according to product requirements.</p>

	<p>3.6 Final product is cooled, assessed for quality and prepared for sale.</p> <p>3.7 Processes specified are in accordance with workplace environmental guidelines.</p>
4. Assess commercial viability of sourdough product	<p>4.1 Marketplace interest in sourdough products is assessed through market research.</p> <p>4.2 Product ingredients and production costs are calculated.</p> <p>4.3 Product is priced according to business pricing policy and estimated costs calculated.</p> <p>4.4 Actual costs are analyzed.</p> <p>4.5 Product range is selected and produced according to commercial viability.</p> <p>4.6 Spoils and waste are recorded.</p>

Variable	Range
Sourdough products	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Organic • traditional and yeasted breads, biscuits, cakes and pastries
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management and Occupational Health and Safety (OHS)
Ingredients	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • flour (e.g. rye, white, whole meal and organic) • water • fruit (e.g. apples, pears and dried fruits) • vegetables (e.g. potatoes and pumpkin) • nuts, grains and seeds • salt • eggs • dairy products • fats and oils
Fermentation problems	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • temperature • moisture • timing • contamination • ingredients

Market research	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • customer surveys • product tasting • customer consultations • product trials
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Evidence Guide	
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Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • describe the features, benefits and processes that apply to sourdough products • describe the impacts of process and ingredients on sourdough products • produce starter culture • produce a range of sourdough products • identify and address problems with dough development, fermentation and production • investigate market interest in sourdough products • assess outcomes against quality standards • apply safe work practices and identify OHS hazards and controls • cost final product • Apply food safety procedures.
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Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • the science behind the production of sourdough • techniques and processes in the manufacture of sourdough • health benefits associated with eating sourdough products • markets for sourdough produce • sourdough ingredients and processes, including: <ul style="list-style-type: none"> • preparation techniques • processing techniques • production techniques • range of grains in breads and types of specialty flours • use of pre-ferments, double hydration techniques, use of sprouted grains and use of specialty flours, such as buckwheat and spelt • different mixing, shaping and baking techniques • principles and processes involved for extended fermentation dough • fermentation process in chemical and natural sourdoughs as this affects dough preparation, baking and final product characteristics, and related food safety issues • preparation stages and requirements for nominated bread types , including: <ul style="list-style-type: none"> • starter preparation • dough scaling and molding methods, including sheeting, hand scaling, and mechanical dividing and rounding
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	<ul style="list-style-type: none"> • intermediate proof methods • baking parameters for different bread types • the effect of ingredients on shelf life and food safety • optimum storage conditions and shelf life for ingredients and related sequencing requirements • optimum storage conditions for the finished product prior to sale • ingredient suppliers and pricing information • methods of estimating fixed and variable costs, and profit margin to determine sale price range • trade practice issues when pricing products • business policy and parameters in pricing products
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • evaluate sourdough products within bakery range • compare and select ingredients for sourdough products • produce and maintain starter cultures • mould dough to meet market expectations • monitor stages in the sourdough fermentation process • assess product quality • produce a range of sourdough products • finish and present bread product to meet product and customer requirements, including applying toppings as required • clean equipment, utensils and work area to comply with hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • measure actual production costs against estimate and account for any variation • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply Advanced Finishing Techniques for Specialty Cakes and Desserts
Unit Code	IND BKG4 05 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to research and applies a range of finishing and decorating techniques for cakes, pastries and desserts.

Elements	Performance Criteria
1. Conduct research into finishing and decorating techniques	<p>1.1 Information resources are identified and accessed to inform the technical and creative aspects of finishing and decorating cakes, pastries and desserts.</p> <p>1.2 Events and festive seasons celebrated with bakery products are identified and a range of presentations explored.</p> <p>1.3 Research is conducted into taste, texture, appearance and presentation of cakes to determine key features of finished effect.</p> <p>1.4 Resources and suppliers available for creating different finished effects are identified and documented for future use to meet workplace recording requirements.</p> <p>1.5 Costs associated with different finishing techniques and features are estimated and cost-efficient alternatives identified.</p>
2. Design finish and decoration for bakery products	<p>2.1 Purpose and desired effect for bakery product are confirmed with customer or from product development criteria.</p> <p>2.2 Design parameters, including colors, flavors, any special requirements or preferences, budget, required servings and quality are confirmed.</p> <p>2.3 Type of bakery product is assessed to inform decoration and finishing options.</p> <p>2.4 Design for decoration and finishing is developed to meet product/customer requirements.</p> <p>2.5 Feedback is sought from client and design adjusted accordingly and final design confirmed.</p> <p>2.6 Design is documented as per workplace information requirements.</p>
3. Plan finishing	<p>3.1 Ingredients used in finishing are examined and key uses and limitations identified.</p> <p>3.2 Plan is developed for bakery product finishing which specifies required resources and plans work sequence.</p> <p>3.3 Ingredients are sourced and prepared for use.</p>

	<p>3.4 Equipment is prepared for use.</p> <p>3.5 Bakery product is prepared for finishing.</p>
4. Produce finishing and decorating effects	<p>4.1 A range of decorative pieces and garnishes are produced.</p> <p>4.2 A range of fillings and toppings are produced.</p> <p>4.3 Bakery product decoration and finishing is completed according to plan and customer requirements.</p> <p>4.4 Work is conducted according to food safety requirements.</p> <p>4.5 Work is conducted to minimize waste and meet workplace environmental standards.</p>
5. Cost and price final product	<p>5.1 Product ingredients are costed.</p> <p>5.2 Production costs are estimated.</p> <p>5.3 Product is priced within business pricing policy.</p> <p>5.4 Actual costs are measured against estimated costs.</p>
6. Prepare final product for market	<p>6.1 Product shelf life is estimated and required storage conditions identified.</p> <p>6.2 Bakery product is prepared for display, sale, packaging or presentation.</p>

Variable	Range
Cakes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • fruit cake • mud cake • torte • continental cakes • croquembouche • sponges • cup cakes • gateaux • special occasion cakes • macaroons • pastries
Workplace information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • verbal or written operating procedures • specifications • production schedules • recipe instructions
Ingredients	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • white sugarpaste • gum Tragacanth • chocolate couverture • marzipan

	<ul style="list-style-type: none"> • royal icing • food colouring • rolled fondant • edible paper ,edible images, wafer paper and rice paper • edible ink • meringue powder and egg whites • buttercream • pettinice • ganache • flavours • sprinkles • garnishes • confectionery • glaze
Equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • round icing tube • bow cutter • blossom cutter • templates • rolling pin • knife • paint brush • a metal scriber • grease-proof piping bags • corn flour dusting bag • cutter • ribbon • cake toppers • spatulas • double boiler, microwave or a chocolate melter • airbrush • moulds • crimpers • cutting wheels • press sets • modelling tools • veiners • whisks • artificial flowers • charms • paper covered wire
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Legislative requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • the Food Standards Code including labeling, weights and measures legislation • legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity
Decorative pieces and garnishes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • sugar flowers • cut shapes • molded shapes • sculptures and cake toppers
Fillings and toppings	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • syrups • flavored sources and toppings • cream • cream cheese • glazes • chocolate • pastillage • croquant and marzipan

Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • research finishes and decorations for cakes and identify suppliers • design finish and decoration for a minimum of five (5) cakes • plan and prepare ingredients, equipment and processes required for finishing • combine and process ingredients according to requirements • finish and decorate cakes according to requirements using a minimum of three (3) decorative pieces and garnishes • assess outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • apply food safety procedures
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • ingredient characteristics, purpose and preparation requirements, including: • scope to substitute or vary ingredients in a recipe • the effect of ingredients on shelf life and food safety • the role, preparation requirements and uses of additives, including colors, flavors and stabilizers • optimum storage conditions and shelf life for finishing's and related sequencing and preparation requirements

	<ul style="list-style-type: none"> • optimum conditions for use of finishing, such as temperature and moisture content • the effect of refrigeration and freezing on finished product as appropriate to product type • optimum storage conditions for the finished product prior to sale • storage, handling and preparation requirements of the finished product, including information to be provided to consumers as appropriate to product type and consistent with food safety requirements • ingredient suppliers and pricing information • methods of estimating fixed and variable costs, and profit margin to determine sale price range • trade practice issues when pricing products • business policy and parameters in pricing products
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • select decoration to meet product/customer requirements • price ingredients for use in product • estimate cost of decoration • select ingredients to meet decoration requirements • prepare finishing and toppings to meet recipe requirements, including: <ul style="list-style-type: none"> ➤ chocolate ➤ creams/butter creams/pastry creams ➤ glazes ➤ fruit ➤ cream cheese • finish and decorate final product • store ingredients, finished and part-finished product in appropriate storage conditions • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • provide customer advice on storage, preparation and portioning as appropriate to product type and intended use (advice must be consistent with food safety and quality requirements) • measure actual production costs against estimate and account for any variation • determine an appropriate price for final products • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Explore and Apply Baking Techniques to Develop New Products
Unit Code	IND BKG4 06 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to apply baking techniques to create new products that respond to consumer demand or extend commercial offerings of enterprise.

Elements	Performance Criteria
1. Identify and refine product ideas	<p>1.1 Marketplace opportunity and product ideas are identified.</p> <p>1.2 Marketplace testing is conducted to assess market acceptance of ideas and feedback used to refine concept.</p> <p>1.3 New product concept is developed and documented to determine production requirements.</p> <p>1.4 Commercial viability of product concept is estimated.</p> <p>1.5 Legislative requirements relating to product development are identified and compliance ensured.</p> <p>1.6 Product concept proposal is documented and features and benefits of product described.</p>
2. Prepare for product development	<p>2.1 Ingredients and equipment required for production are checked for availability and readiness and ingredient orders completed if required.</p> <p>2.2 Technical aspects of development are identified and production plan prepared.</p> <p>2.3 Work area is prepared according to workplace food safety standards.</p> <p>2.4 Work is conducted according to workplace environmental guidelines.</p>
3. Apply baking skills and knowledge	<p>3.1 Production plan is followed and results documented as per workplace policies and procedures.</p> <p>3.2 Baking skills are applied to experiment with ingredients and production process and assess impacts of variations to product outcome.</p> <p>3.3 Variations to product concept are identified.</p> <p>3.4 Packaging and presentation requirements for product are identified and shelf life determined.</p> <p>3.5 Process and findings are documented.</p>

5. Evaluate product concept	<p>4.1 Technical integrity of the product is assessed against quality standards of enterprise and expectation.</p> <p>4.2 Market testing is conducted to assess product acceptance.</p> <p>4.3 Commercial viability of actual production is reassessed and evaluated against enterprise requirements.</p> <p>4.4 Variations and improvements to process and outcome are identified.</p> <p>4.5 Product is reproduced to confirm final specifications.</p> <p>4.6 Product concept is documented and process specified to ensure consistent quality and commercial standards are achieved.</p>
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Variable	Range
Market testing	May include but not limited to: <ul style="list-style-type: none"> • consumer product tasting and sampling • promotional activity • evaluation from colleagues or industry experts
New products	May include but not limited to: <ul style="list-style-type: none"> • products that meet specific dietary, religious or cultural needs, • products based on established products or involve entirely new ingredient combinations or production or cooking processes
Commercial viability	May include but not limited to: <ul style="list-style-type: none"> • the net profit margin of the product • consumer support and repeat purchase • ability to reproduce to establish standards • availability of ingredients • compliance with legislative and regulatory standards • compatibility with business objectives and standards
Technical aspects	May include but not limited to: <ul style="list-style-type: none"> • moisture • structure • taste • symmetry • appearance • aroma • organic • yeast free • dairy free • gluten free

Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Experimentation	May include but not limited to: <ul style="list-style-type: none"> • variations in ingredients or processes to affect taste, texture, aroma or presentation

Evidence Guide	
Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> • identify market opportunities and determine commercially viable product solutions • apply baking skills and knowledge to develop product to meet quality standards • evaluate technical aspects of product • prepare product development proposal, including production processes, costings and rationale • present product ideas • Conduct market testing.
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> • sources of information on local market, product range and performance of similar products • expected quality and taste of products to meet business and customer expectations • baking methods used to produce retail bakery products relevant to the business • availability of ingredients and processing equipment required by new product • food safety issues related to production, preparation, presentation and storage of product • methods of gaining customer feedback (e.g. conducting tastings) • methods of estimating fixed and variable costs, and profit margin to determine sale price range • trade practice issues when pricing products
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> • identify market opportunities and assess value to enterprise • conduct basic market testing of product ideas and outcomes • cost ingredients and production processes to determine estimated and actual costs • identify the ingredients and method used to produce product • assess baking process and make adjustments • determine product assembly and presentation

	<ul style="list-style-type: none"> • present product proposal • assess commercial viability of products • evaluate technical properties of product • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce • research and present information
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Evaluate and Assess Bakery Product
Unit Code	IND BKG4 07 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to evaluate the quality of bakery products.

Elements	Performance Criteria
1. Determine methodology for evaluating product quality	1.1 Bakery product to be evaluated is defined and specific criteria for product are examined. 1.2 National and international standards are researched and identified for product range. 1.3 Applicable tests and methodologies are identified for assessing product. 1.4 Evaluation methodology is selected to ensure standardized approach.
2. Apply evaluation methodology	2.1 Volume and general appearance of product are assessed against standard and findings documented. 2.2 Texture, aroma, color and taste of product are assessed against standard and findings documented. 2.3 Technical difficulty and originality of product are assessed and findings documented. 2.4 Other tests are conducted as required to rate product. 2.5 Processes are specified in accordance with workplace environmental guidelines.
3. Determine product characteristics	3.1 Product characteristics are rated on all criteria. 3.2 Common problems are identified and causes determined. 3.3 Strengths and weaknesses of product are determined. 3.4 Product characteristics are described and documented.
4. Make product comparisons and recommendations	4.1 Product quality is compared with other products of its class. 4.2 Recommendations are made for quality rating and commercial positioning of product. 4.3 Recommendations for product improvement are made according to findings.

Variable	Range
Bakery products	May include but not limited to: <ul style="list-style-type: none"> • breads • pastries • cakes • meat pies and savories

Texture	May include but not limited to: <ul style="list-style-type: none"> • evenness of internal texture • cell size • shape fineness of walls • holes • softness • crumb stability
Aroma	May include but not limited to: <ul style="list-style-type: none"> • the internal smell of product
Color	May include but not limited to: <ul style="list-style-type: none"> • appropriate to the product
Product characteristics	May include but not limited to: <ul style="list-style-type: none"> • moisture • taste • quality of ingredients • storage stability and shelf life • viscosity • refraction • measurement • use of ingredients • costs • process and equipment requirements • appearance • texture • aroma • color • packaging • microbiological testing • technical difficulty • volume • originality
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Tests	May include but not limited to: <ul style="list-style-type: none"> • triangle • descriptive • rating • desirable product qualities • texture evaluation by bite • flavor evaluation • overall degree of liking
Appearance	May include but not limited to: <ul style="list-style-type: none"> • symmetry and volume • presentation and cleanliness

	<ul style="list-style-type: none"> • character of spring • soundness • bloom • color • general character and uniformity
Common faults	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • holes in internal texture of loaf from molding or grains being too wet • uneven or tearing break and crust • uneven color and texture • under/over mixing, molding and/or poor volume • crust lift/separation at the top of the loaf • too much or too little fruit • breaking apart of fruit • over proofing • under baking <p>Common faults for cake products include:</p> <ul style="list-style-type: none"> • over mixing of batter • bubbles • top layer too crowded • inside surface of pastry under baked • over baking with pastry edges burnt • unstable fillings • excessive sugar • filling too wet • non-uniformity • decorations not in proportion to the cake • uneven distribution of flavors

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • identify and apply industry criteria to bakery product evaluation • apply industry standard methodology to evaluate criteria • conduct sensory evaluation of product • make comparative assessments of products • identify faults in product and determine cause • Make qualitative judgments and recommendations about product quality.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • sources of information on product quality criteria • industry standards for product • expected quality and taste of products to meet business and customer expectations • baking methods and ingredients used to produce retail bakery products • common baking problems and causes

	<ul style="list-style-type: none"> • food safety issues related to production, preparation, presentation and storage of product
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • access and apply industry and product class standards and quality criteria • conduct sensory assessment • detect qualities of product • identify problems or faults with product • make comparative findings • identify the ingredients and method used to produce product • evaluate technical properties of product • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce • research and present information
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Set Up Sustainable Baking Operations
Unit Code	IND BKG4 08 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to examine the implications of sustainability on bakery operations and develop plans for sustainability.

Elements	Performance Criteria
1. Conduct sustainability related research for the bakery business	<p>1.1 Industry information resources are identified and accessed to maintain bakery business knowledge.</p> <p>1.2 Sustainability related regulatory requirements, drivers and influences that impact on the banking industry are analyzed and assessed for relevance to business operations.</p> <p>1.3 Information is assessed and used to inform a sustainability plan for the business.</p> <p>1.4 Bakery business plan is examined and implications for set-up identified and prioritized.</p>
2. Analyze sustainability implications for bakery	<p>2.1 The style of bakery and key characteristics and operational implications are confirmed.</p> <p>2.2 Implications for layout, equipment, stock and staffing are identified and incorporated into set-up planning.</p> <p>2.3 Criteria for sustainability in bakery operation are determined and strategies for achieving sustainability identified.</p>
3. Develop layout plan for bakery	<p>3.1 Production area is measured and documented, including identification of services, openings and fixed facilities.</p> <p>3.2 Production process is mapped and a layout plan developed to identify placement of equipment and processes.</p> <p>3.3 Service and/or distribution requirements are examined and mapped.</p> <p>3.4 Layout is assessed for its efficiency, Occupational Health and Safety (OHS) and potential for environmental impact.</p> <p>3.5 Potential for generating waste through production and service/distribution process is identified.</p> <p>3.6 Opportunities to reduce waste and increase efficiencies are identified and incorporated into planning.</p> <p>3.7 Layout plan is finalized and checked to ensure accuracy and completeness.</p>
4. Determine equipment requirements	<p>4.1 Range of products and services to be offered are confirmed.</p> <p>4.2 Production equipment, services and facilities, and storage and transfer equipment options required for business operations are identified.</p>

	<p>4.3 Presentation and display equipment requirements are identified and options assessed against décor and image objectives.</p> <p>4.4 Equipment options are researched and assessed for appropriateness in meeting business plan goals, targets and budgets.</p> <p>4.5 Equipment features are assessed for their efficiency in relation to waste and energy and resource consumption and options prioritized according to sustainability.</p> <p>4.6 Equipment is selected based on economic value, operational efficiency and environmental performance.</p> <p>4.7 Equipment schedule is itemized, costed and documented.</p>
5. Determine stock requirements	<p>5.1 Stock requirements for product range and quality criteria are identified and quantities estimated.</p> <p>5.2 Stock options are assessed for their economic value, quality and their impact on the environment resulting from production and distribution processes.</p> <p>5.3 Stock is specified based on economic value, quality and environmental performance.</p> <p>5.4 Suppliers are researched and selected to support ongoing operations.</p> <p>5.5 Purchasing schedule is developed, costed and documented.</p>
6. Determine human resource requirements	<p>6.1 Activities and tasks required to operate bakery are identified.</p> <p>6.2 Number of staff required is determined and job roles documented.</p> <p>6.3 Costing implications of staff are calculated.</p>
7. Assess environmental sustainability of bakery	<p>7.1 Concept of carbon footprint is described and types of environmental impact of bakery operations are identified.</p> <p>7.2 Opportunities are identified for improving environmental performance of operations.</p> <p>7.3 Measures of environmental performance are identified.</p> <p>7.4 Strategy is developed and documented for ongoing monitoring of environmental performance.</p>

Variable	Range
Bakery businesses	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • country style bakery • café bakery • franchise • retail bakery • specialist bakery, such as sourdough • wholesale bakery

Implications	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • requirement to adhere to established criteria • scope of operation and product range • requirement for specific staffing expertise • time and process requirements for production • production methodologies • quality of ingredients • supply criteria • quantities and timelines for production • customer demands
Criteria for sustainability and environmental performance	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • energy consumption • water consumption • use of alternative energy sources • type and transportation of ingredients and materials • use of chemicals and treatments • waste treatment, disposal, recycling, re-use and wastewater treatment • resource consumption • process efficiencies • waste
Waste	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • excessive use of energy or material resources • overproduction • unnecessary movement of people, stock and product • unproductive time • faulty products or non-compliances with workplace standards • duplication • unnecessary costs • pollution
Stock requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • ingredients • disposable supplies • water • cleaning agents • power
Policies and procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements

Research	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • on-site visits • stakeholder engagement • trade publications • internet resources • engagement of professional services, such as solicitors, accountants, baking associations, business advisors, bakery operators, bakers, suppliers, and sustainability or lean manufacturing experts
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • determine stock, equipment and human resources required for bakery operation • evaluate options for facilities and production operations • map bakery processes • identify sustainability issues for bakery and implications for operations • identify opportunities for improvement • Develop sustainability plans that demonstrate an understanding of product and service flow and waste minimization.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • sources of bakery business and industry information • equipment used in retail bakery • product and service range within retail bakery operations • concepts of process flow, waste and energy efficient
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • identify relevant information for bakery operation and assess information sources • analyze bakery business plan • compare products and services • assess impact of trends and influences on bakery operations • calculate costs associated with equipment, stock and human resources • document plans • conduct research • analyze functions and processes within a retail bakery • apply sustainability concepts to operations • interpret information on environmental performance of products, services and equipment • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Coordinate Material Supply for Baking Processes
Unit Code	IND BKG4 09 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to research select and establish suppliers for a bakery enterprise and coordinate the ongoing procurement to ensure quality and quantity targets are achieved.

Elements	Performance Criteria
1. Confirm stock requirements for bakery	<p>1.1 Production schedule and product range are analyzed to identify stock and ordering requirements.</p> <p>1.2 Quality criteria for ingredients and other material supplies are identified.</p> <p>1.3 Range, type and volume of flour, yeast and other key baking ingredients required for operations are confirmed.</p> <p>1.4 Specifications and material safety data sheets (MSDS) relating to bakery stock are interpreted and confirmed.</p> <p>1.5 Special requirements are identified, including handling requirements for hazardous materials and storage conditions for bakery ingredients.</p> <p>1.6 Seasonal impacts on availability of bakery ingredients are identified and reflected in supply requirements.</p> <p>1.7 Stock requirements are documented according to workplace practice.</p>
2. Evaluate bakery suppliers	<p>2.1 Existing suppliers for baking materials and other resources are identified and value adds determined.</p> <p>2.2 Inputs to suppliers are determined and implications for bakery identified.</p> <p>2.3 Impacts of costs, service, quality and response times on bakery operations are determined.</p> <p>2.4 Supply chain relationships are examined for suitability to bakery operation.</p> <p>2.5 Types of supply arrangements are examined for suitability to bakery operations.</p>
3. Negotiate arrangements with suppliers	<p>3.1 Research is conducted to identify suppliers for required ingredients according to production schedule.</p> <p>3.2 Sustainability criteria are used to assess value of suppliers.</p> <p>3.3 Suppliers are analyzed and compared to make selection according to the quality, sustainability, delivery and cost requirements of the business.</p>

	<p>3.4 Ingredient knowledge is applied to identify quality standards, most suitable variations or alternatives.</p> <p>3.5 Suppliers are selected and supply relationships established.</p> <p>3.6 Supply arrangements are confirmed and documented according to the business needs.</p>
4. Monitor supply	<p>4.1 Suppliers are monitored to ensure materials are received according to specifications.</p> <p>4.2 Variations in requirements due to marketing or product development activity are accommodated in supply arrangements.</p> <p>4.3 Ingredient quality is regularly checked against established criteria.</p> <p>4.4 Problems with supply are addressed and changes to arrangements made as required.</p>

Variable	Range
Inputs to existing suppliers	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • organic certification • genetic modification • quality standards • sustainability credentials • supply relationships • reputation
Supply chain relationships	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • partnership arrangements • manufacturer to retailer • manufacturer to distributor • distributor to retailer
Supply arrangements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • managed inventories • collaborative forecasting • quick response • just in time • continuous replenishments
Sustainability criteria	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • environmental, economic and social implications and impacts
Research	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • trade magazines and journals • networks and industry events • other businesses • internet • trade shows • business, marketing and promotional personnel

Special requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> • low Glycemic Index (GI) • sugar free and fat free • dairy free • gluten free • rice flour • yeast free • low fat • low salt • vegetarian • vegan • delivery times • extra quantities • quality or grade • organic • biodynamic • halal and kosher
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • select suppliers for bakery ingredients to meet the quality, quantity and cost criteria of the business • research suppliers and make comparative judgments about supply suitability • apply knowledge of bakery ingredients to determine supply requirements and quality • solve supply related problems • ensure supply meets the production requirements of the business • Complete documentation relating to supply.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • information sources available to inform supply activity • specifications and MSDS documentation for bakery materials • procurement procedures for business • labeling and packaging options and legislative requirements for bakery operations • range of bakery ingredients and alternatives
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • access and interpret retail bakery business and supplier information • analyze research findings and make recommendations • establish supply relationships • make comparisons on product and service suitability • cost and price bakery ingredients • analyze labeling and packaging options and legislative requirements

	<ul style="list-style-type: none"> • monitor compliance with supply arrangements • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Prepare Plated Sweets and Desserts
Unit Code	IND BKG4 10 0613
Unit Descriptor	This unit of competency covers the skills and knowledge required to prepare a range of hot, cold and frozen sweets and desserts for plate presentation.

Elements	Performance Criteria
1. Prepare for production	<p>1.1 Purpose and desired effect for sweets and desserts are confirmed with customer or from product development criteria.</p> <p>1.2 Product parameters, including colors, flavors, any special requirements or preferences, budget, required servings and quality, are confirmed.</p> <p>1.3 Cultural influences on product type and production techniques are identified and considered in preparation.</p> <p>1.4 Recipe is selected and ingredients measured and weighed.</p> <p>1.5 Cooking methods required are determined and appropriate equipment prepared.</p>
2. Produce sweets and desserts	<p>2.1 Sweets and desserts are prepared according to recipe and quality standards.</p> <p>2.2 Cooking methods are applied to produce desired effect.</p> <p>2.3 Hot and cold sauces are produced to required consistency and flavor according to product requirements and using appropriate ingredients and techniques.</p> <p>2.4 Portions are allocated according to workplace standards.</p> <p>2.5 Work is conducted to minimize waste and meet workplace environmental standards.</p>
3. Produce finish effects	<p>3.1 A range of decorative pieces, accompaniments and garnishes are produced to enhance taste, texture and balance.</p> <p>3.2 A range of fillings and toppings are produced.</p> <p>3.3 Decoration and finishing is completed according to work requirements and in a manner which complements the product.</p> <p>3.4 Work is conducted according to food safety requirements.</p>
4. Cost and price final product	<p>4.1 Product ingredients are costed and production costs estimated.</p> <p>4.2 Product is priced within business pricing policy.</p> <p>4.3 Actual costs are measured against estimated costs.</p>

5. Prepare final product for display or storage	<p>5.1 Product shelf life is estimated and required storage conditions identified.</p> <p>5.2 Product is prepared for display or presentation and packaging selected as required to enhance appearance and preserve quality and taste.</p> <p>5.3 Product is stored at appropriate temperature and under the correct conditions to maintain quality, freshness and customer appeal.</p>
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Variable	Range
Equipment	May include but not limited to: <ul style="list-style-type: none"> • mixers • blenders • ice-cream machines • ice makers • juicers or vita misers
Desserts and sweets	May include but not limited to: <ul style="list-style-type: none"> • puddings, pies, tarts, flans and fritters • custards and creams • prepared fruit • charlotte, bavarois, mousse, soufflé and sabayon • meringues, crepes and omelet's • sorbet, ice-cream, bombe and parfait
Decorative pieces and garnishes	May include but not limited to: <ul style="list-style-type: none"> • sugar flowers • cut shapes • molded shapes
Policies and procedures	May include but not limited to: <ul style="list-style-type: none"> • company policies and procedures • regulatory and licensing requirements • legislative requirements industrial awards and agreements
Legislative requirements	May include but not limited to: <ul style="list-style-type: none"> • the Food Standards Code, including labeling, weights and measures legislation • legislation covering food safety, environmental management, Occupational Health and Safety (OHS), anti-discrimination and equal opportunity
Workplace information	May include but not limited to: <ul style="list-style-type: none"> • operating procedures • specifications • production schedules • recipe instructions
Sauces	May include but not limited to: <ul style="list-style-type: none"> • sugar syrups • fruit syrups

	<ul style="list-style-type: none"> • fruit purées, sauces and coulis • chocolate-based sauces • sabayon and zabaglione • custards and crèmes • flavored butters and creams
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • produce a range of sweets and desserts • plan and prepare ingredients, equipment and processes required for production • combine and process ingredients according to requirements and desired effect • finish and decorate sweets and desserts according to requirements • assess outcomes against quality standards • take corrective action in response to typical faults and inconsistencies • apply safe work practices and identify OHS hazards and controls • Apply food safety procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • characteristics, ingredients and cooking methods required for a range of sweets and desserts • ingredient characteristics, purpose and preparation requirements • details and characteristics of different types of desserts and sweets • varieties of suitable ingredients and their uses for desserts and sweets • past and current trends in desserts and sweets • nutrition related to desserts and sweets, including food values of common desserts and low-fat or low-kilojoule alternatives and substituted ingredients • storage of sweets, desserts and dessert ingredients, particularly dairy products • costing, yield testing and portion control for desserts • optimum storage conditions and shelf life for sweets and desserts and related sequencing and preparation requirements • optimum conditions for use of finishing (This varies according to ingredient type and typically includes temperature and may include moisture content) • the effect of refrigeration and freezing on finished product as appropriate to product type • optimum storage conditions for the finished product prior to sale

	<ul style="list-style-type: none"> • storage, handling and preparation requirements of the finished product, including an understanding of information to be provided to consumers as appropriate to product type and consistent with food safety requirements • ingredient suppliers and pricing information • business policy and parameters in pricing products
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • price ingredients for use in product • estimate cost of production • select ingredients to meet production requirements • prepare a range of sweets and desserts to meet recipe requirements • finish and decorate the final product • clean equipment and utensils to meet hygiene standards • maintain workplace records as required • maintain work area to meet housekeeping standards • determine storage, preparation and portioning as appropriate to product type and intended use • use oral communication skills/language competence to fulfill the job role as specified by the organization, including questioning, active listening, asking for clarification and seeking advice from supervisor • work cooperatively within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Identify, Evaluate and Control Food Safety Hazards
Unit Code	IND BKG4 11 0613
Unit Descriptor	This unit covers the skills and knowledge required to identify, evaluate and control food safety hazards for the purposes of validating specific control measures in a food safety program.

Elements	Performance Criteria
1. Identify food safety hazards in a food business	<p>1.1. Biological food safety hazards that could present a risk in the food at the point of consumption are identified by type, origin and food association and assessed to determine risk level and control requirements.</p> <p>1.2. Intrinsic and extrinsic chemical food safety hazards that could present a risk in the food at the point of consumption, including toxin presence, are identified by type, origin and food association and assessed to determine risk level and control requirements.</p> <p>1.3. Physical food safety hazards that present a risk in food are identified and assessed to determine control requirements.</p>
2. Control food safety hazards in a food business	<p>2.1. Processing hazards and related control measures and critical limits, monitoring and recording requirements are established and validated to eliminate or reduce food safety hazards to acceptable levels.</p> <p>2.2. Food storage and handling requirements necessary to eliminate or reduce food safety hazards are determined.</p> <p>2.3. Personal hygiene practices required to eliminate or reduce food safety hazards are established.</p> <p>2.4. Cleaning and sanitation, housekeeping and pest control practices and procedures required to prevent or reduce food safety hazards are established.</p> <p>2.5. Other prerequisite programs are developed to eliminate or reduce food safety hazards to acceptable levels.</p>

Variable	Range
Food safety hazards	A food safety hazard is a biological, chemical, or physical agent in, or condition of, food with the potential to cause an adverse health effect in humans
Biological food safety hazards	Common biological food safety hazards include but are not limited to: <ul style="list-style-type: none"> • Salmonella spp • Campylobacter jejuni • Bacillus cereus • Clostridium perfringens • Clostridium botulinum • Cryptosporidium

	<ul style="list-style-type: none"> • Pathogenic escherichia coli • Giardia • Listeria monocytogenes • Shigella spp • Staphylococcus aureus • Vibrio parahaemolyticus • Yersinia enterocolitica • Hepatitis A virus • Norwalk virus <p>Classifications by type of micro-organism include:</p> <ul style="list-style-type: none"> • bacteria • viruses • moulds/fungi • parasites • algae
Chemical food safety hazards	<p>Common origins of chemical contamination may include:</p> <ul style="list-style-type: none"> • cleaning chemicals • pesticides • veterinary residues • chemical additives • allergenic substances • toxic metals • nitrites, nitrates and N-nitroso compounds • polychlorinated biphenyls (PCBs) • plasticizers and packaging migration • phytotoxins • zootoxins
Physical food safety hazards	<p>Physical food safety hazards refer to objects not normally found in food which may cause illness or injury to the consumer</p>
Acceptable levels	<p>Acceptable levels define the level of a particular hazard in the end product that is acceptable to ensure food safety. Acceptable levels are typically defined by:</p> <ul style="list-style-type: none"> • the Food Standards Code • commonwealth, state or territory legislation or codes • industry codes of practice • international protocols (CODEX Alimentarius) • customer food safety requirements (including intended use)
Prerequisite programs	<p>Prerequisite programs are also referred to as support programs, such as Good Manufacturing Practice (GMP), Good Agricultural Practice (GAP) and Good Hygiene Practice (GHP).</p> <p>Prerequisite programs can be divided into two categories.</p> <p>Infrastructure and maintenance programs. These may include:</p> <ul style="list-style-type: none"> • layout, design and construction of buildings and facilities • supplies of air, water, energy and other utilities • equipment, including preventative maintenance, sanitary design and accessibility for maintenance and cleaning

	<ul style="list-style-type: none"> • support services, including waste and sewage disposal <p>Operational prerequisite programs. These may include:</p> <ul style="list-style-type: none"> • personal hygiene • cleaning and sanitation • pest control • measures for the prevention of cross-contamination • packaging and labeling procedures • supplier assurance • chemical storage • employee training • maintenance • calibration • document control • internal audit programs • traceability and recall programs • on-farm food safety schemes • inspecting and testing regimes, including analytical and microbiological testing
Critical control point	Critical control point is a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level
Critical limit	Critical limit refers to criterion which separates acceptability from unacceptability
Food supply chain	Food supply chain refers to a sequence of stages and operations involved in the production, processing, distribution and handling of food from primary production to consumption
Growth requirements	<p>may include:</p> <ul style="list-style-type: none"> • temperature • water activity • gases • pH • time • moisture • nutrients
Validation	Validation refers to obtaining evidence to confirm that a HACCP-based food safety program is complete and effective and will deliver the expected food safety outcomes
Licensing/certification requirements	Licensing and registration arrangements are determined by system owners
Validation evidence	<p>Validation evidence confirms that control measures are capable of being consistently effective and may include the application of:</p> <ul style="list-style-type: none"> • existing Australian legislative requirements • challenge tests • peer reviewed scientific papers • targeted scientific reports

	<ul style="list-style-type: none"> validation already carried out in other jurisdictions and recognized by the responsible authority mathematical modeling (e.g. predictive microbiology models) industry codes of practice (where implementation by food business is verified during audits)
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Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> known biological food safety hazards that could occur across the chain and could present a risk in food at the point of consumption likely patterns of growth and transmission from source of contamination to onset of consumer symptoms for pathogens likely to occur in the supply chain, including threshold levels sources of chemical and physical contamination that could present a food safety risk at the time of food consumption, across the chain impact and indicators of the presence of biological or chemical food safety hazards throughout the food chain acceptable levels of contamination. These may be established by reference to relevant legislation and/or reference to system requirements select one stage in the food supply chain (which must be a medium or high risk business or process) and establish or validate control measures and verification records and procedures.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> sources of advice and research on foods, processing methods, production technologies and associated food safety hazards and control methods ways in which food can cause illness and injury, including incidence and trends in food-borne illness intrinsic and extrinsic factors that can impact on food safety common biological food safety hazards (including toxin production and spore formation) and conditions required for survival and growth of each, including growth rates, transmission routes, likely carriers and threshold levels sources of information on acceptable (and legal) levels of biological, chemical and physical contamination food supply chains and potential of a breakdown in control at one point to impact other parts of the chain survival and growth requirements of biological food safety hazards common allergenic substances as described by the Food Standards Code common control methods necessary to eliminate or reduce the risk of food-borne illness to acceptable levels for each common pathogen, including the role of food storage, temperature control, preservation and process methods, traceability, product shelf-life, cleaning and sanitation, and pest control

	<ul style="list-style-type: none"> • methods to detect and minimize the risk of food contamination by personal carriers, including convalescent and symptomless carriers, and related minimum legal illness reporting requirements and personal hygiene procedures • the role of microbiological sampling, swabbing and testing in assessing the presence of biological contamination • methods to determine the appropriateness and effectiveness of control measures and critical limits, including identifying the effect of control measures on the identified food safety hazard, method and feasibility of monitoring, the relationship to other control measures, and the severity of consequences and required corrective action in the event of failure of control • types and causes of acute and chronic chemical food borne illness • the food safety and legal impact of chemical contamination, including residual agricultural and environmental chemicals, residual industrial (including cleaning) chemicals, and chemical contamination as a result of packaging methods and materials • physical hazards that pose a food safety risk • common control methods to eliminate or reduce the risk of chemical or physical food-borne illness to acceptable levels for each common form of chemical and physical food safety hazard, including: <ul style="list-style-type: none"> ➢ chemicals that pose a food safety risk ➢ common food allergens ➢ physical hazards • the role and requirements of prerequisite programs and procedures to eliminate, prevent or reduce biological, chemical and physical food safety hazards to acceptable levels 		
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • interpret and apply relevant legislation, codes of practice and technical standards • identify biological, chemical and physical food safety hazards • determine critical control points and critical limits for identified hazards • establish the required procedures, systems and records to monitor critical control points in order to demonstrate that the critical control point is in control • specify required corrective actions and corrections to be taken when critical limits are not achieved 		
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>		
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning 		
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>		
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Occupational Standard: Baking Level IV	
Unit Title	Identify the Physical And Chemical Properties of Materials, Food and Related Products
Unit Code	IND BKG4 12 0613
Unit Descriptor	<p>This unit covers the skills and knowledge required to identify the physical and chemical properties of materials, food and related products. It requires application of this knowledge to a production environment.</p> <p>This unit has application in the food processing industry where knowledge of physical and chemical properties of materials, food and related products is used to inform work in product development, production, testing, communication and problem solving.</p>

Elements	Performance Criteria
1. Apply understanding of common physical phenomena in the food industry	<p>1.1. An understanding of common physical phenomena is applied to explain relevant changes that occur to ingredients and product through the production process.</p> <p>1.2. Information on the changes that occur is communicated to others in appropriate formats.</p>
2. Apply an understanding of the physical states of matter	<p>2.1. The three states of matter and the atomic changes that occur at each phase are identified.</p> <p>2.2. The behavior of each type of matter and its relationship to the production process is described.</p> <p>2.3. The relationship between pressure and temperature in phase transition is identified.</p>
3. Apply an understanding of common food science principles to a production process	<p>3.1. The significance of pH for processing, food safety and cleaning applications is identified.</p> <p>3.2. The reactions and properties of carbohydrates, proteins and fats can be tracked through a given process.</p> <p>3.3. The properties of common emulsions, suspensions and solutions can be described.</p> <p>3.4. Common chemical reactions that occur, factors required to cause a reaction and the effect of reactions can be identified.</p> <p>3.5. Safe work procedures for processes requiring handling of chemicals and/or involving chemical reactions are reviewed and/or established.</p>
4. Communicate and interpret technical information	<p>4.1. Appropriate technical terms are used to communicate information on properties of food and materials commonly used in the food industry.</p> <p>4.2. Test results and reporting formats to communicate information on composition, properties and reactions are interpreted and applied.</p>

Variable	Range
Handling and processing of product and materials	Handling and processing of product and materials is consistent with company standards and requirements, legislative requirements, codes, industrial awards and agreements
Identification of molecular structure	Identification of molecular structure can be supported by others and does not necessarily involve use of microscopes in a laboratory

Evidence Guide	
Critical aspects of Competence	<p>Must demonstrate knowledge and skills competence to:</p> <ul style="list-style-type: none"> • identify physical and chemical characteristics of food materials and the impacts of production processes on these characteristics • identify common tests and measures to assess food materials • identify the characteristics of acids and bases and their application in food processing • identify the basic molecular structures of carbohydrates, proteins and fats • distinguish the difference between solutions, suspensions and colloidal systems • identify hazards and control methods in managing hazardous materials • communicate technical information using correct technical terms, flow charts and sketches
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • physical characteristics or phenomena that occur through processing and products and processes where these phenomena can be observed • tests commonly used to measure these phenomena and related units of measurement • molecular changes that occur in states of matter • transition phases that apply in a given production process • role of temperature and pressure in the transition process • differences between a strong acid and a concentrated acid and related units of measurement • classifications of commonly used materials, ingredients and indicators according to pH • typical strengths and concentration levels required for acids and bases commonly used in a production process • basic molecular structures of carbohydrates, proteins and fats • difference between solutions, suspensions and colloidal systems • typical applications of solutions, suspensions and colloidal systems in food processing • factors that affect stability of colloidal systems • common chemical reactions that occur in food processing • role of enzymes in generating biological reactions

	<ul style="list-style-type: none"> • safety hazards and control methods • technical information resources
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • shear and strain • friction • surface tension • pressure • crystallization • total solids • heat and temperature • relative humidity • work/energy input • viscosity • particle size • melting points, boiling points, freezing points • dew/condensation point • other phenomena as appropriate to product/process • identify products and processes where these phenomena can be observed • based on phenomena that can be observed in a production process, develop explanatory sketches or flow charts to communicate how these phenomena affect product and process • identify tests commonly used to measure these phenomena and related units of measurement • identify molecular changes that occur in states of matter, and apply this to an understanding of common applications, such as refrigerant or freeze drying • for transition phases that apply in a given production process, identify the role of temperature and pressure in the transition process • identify the difference between acids and bases • classify commonly used materials, ingredients and indicators according to pH • identify the difference between a strong acid and a concentrated acid and related units of measurement used to describe these acids • identify typical strengths and concentration levels required for acids and bases commonly used in a production process (e.g. cleaning agents) for cleaning agents, identify compatibility with equipment surface materials • identify the significance of pH for processing, food safety and cleaning applications • identify the basic molecular structures of carbohydrates, proteins and fats

	<ul style="list-style-type: none"> • identify the processing stages designed to affect the structure of these compounds (e.g. hydrogenation or denaturing proteins in cooking processes of oil) • distinguish the difference between solutions, suspensions and colloidal systems. Colloidal systems include: <ul style="list-style-type: none"> ➢ emulsions (oil in water/water in oil) ➢ sols (solid-liquid/solid-solid) ➢ gels ➢ foams (gas-liquid/gas-solid) • identify typical applications of solutions, suspensions and colloidal systems in food processing • distinguish between dispersed particles and the dispersion medium in colloids • identify factors that affect stability of colloidal systems, including the stages in a production process that can cause a change in the structure of a colloid • identify common chemical reactions that occur in food processing, including both spontaneous and controlled reactions (reactions to be covered include oxidation, enzymic, Maillard and acid-based reactions, and other reactions relevant to a given product type and production process) • identify the role of enzymes in generating biological reactions (e.g. amylase in bread) • identify safety hazards and control methods required when handling chemicals and working with processes that involve chemical reactions • review and/or develop workplace procedures to include advice on hazards and related instructions on control methods, including advice on action required in the event of an incident such as a chemical spill or an emergency • read and interpret technical information to describe food properties and/or reactions, including recognition and application of appropriate units of measurement and terms • use communication skills to interpret and complete work information to support operations of work team or area • demonstrate and support cooperative work practices within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply an Understanding of Legal Requirements of Food Production
Unit Code	IND BKG4 13 0212
Unit Descriptor	<p>This unit covers the skills and knowledge required to ensure that food production operations comply with legal requirements.</p> <p>The intent of this unit covers the range of legal requirements applying to food processing activities and facilities but not include requirements related to environmental management, Occupational Health and Safety (OHS) and food safety except being aware of the existence of legislation, its intent and the arrangements in place to ensure compliance.</p>

Elements	Performance Criteria
1. Manage production systems to meet legislative requirements relating to product and processing	<p>1.1. Relevant legislation and regulations that apply to food production, packaging and labeling are identified</p> <p>1.2. The purpose and intent of relevant legislation are identified</p> <p>1.3. The roles and responsibilities of authorities responsible for administering legislation are identified</p> <p>1.4. Procedures are established and/or reviewed to support compliance with legal requirements</p>
2. Manage production facilities to meet legislative requirements relating to food premises, equipment design and storage facilities	<p>2.1. Relevant legislation and regulations that apply to food premises, storage facilities and equipment are identified</p> <p>2.2. Identify the purpose and intent of relevant legislation are identified</p> <p>2.3. Identify the roles and responsibilities of authorities responsible for administering legislation are identified</p> <p>2.4. Procedures are established and/or reviewed to support compliance with legal requirements</p>

Variable	Range
Legislation	<p>to be covered by this unit includes:</p> <ul style="list-style-type: none"> • Food Standards Code • food safety legislation (including provisions covering the design of food premises and equipment) • customs and excise legislation (for alcohol-based ingredients/materials) • dangerous goods legislation • import and export legislation • additional legislation as appropriate to product, process and market • environmental protection legislation

Evidence Guide			
Critical Aspects of Competence	<p>Must Demonstrate evidence of ability to:</p> <ul style="list-style-type: none"> • identify legal requirements for the packing, production and labeling operations of a food production enterprise • assess systems, roles and procedures in place • identify legal requirements for facilities and equipment and assess compliance • establish and/or review procedures to support compliance with legal requirements 		
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • legal responsibilities of a food processing company relating to product content and packaging • the purpose and intent of relevant legislation • potential hazards that could be introduced as a result of equipment design and configuration • associated risks in handling chemicals and dangerous goods • recording requirements to comply with legislative requirements • relevant authorities responsible for administering legislation and their roles 		
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • identify the legal responsibilities of a food processing company, including responsibilities relating to: • product content (Food Standards Code) • product packaging and labeling, including use of nutritional information panels (Food Standards Code) • design requirements of food premises and equipment • requirements of storage facilities used for materials, ingredients and final product • other requirements as appropriate to the product and/or market (e.g. import and/or export legislation) • identify and/or develop specifications and procedures to ensure that legal responsibilities related to product content and packaging are achieved • inspect plant design to identify potential hazards that could be introduced as a result of equipment design and configuration, such as overhead pipes or equipment where dust could collect and fall into food • where hazards are identified, apply the hierarchy of control to identify opportunities to remove or control the risk • identify storage facilities across a production site • identify the dangerous goods stored on site and confirm that storage of these goods (type and quantity) meets legal requirements • confirm that employees required to handle chemicals and dangerous goods are advised of the associated risks, that this information is available in a form appropriate to the audience and that material safety data sheets are available 		
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	<ul style="list-style-type: none"> • develop and/or review recording systems to confirm compliance with legislative requirements and ensure that employees responsible for recording information are informed of these responsibilities • establish internal review/audit procedures to confirm that legislative responsibilities are met • identify the relevant authority responsible for administering the legislation • identify the rights and responsibilities of related officers to access the production site • use communication skills to interpret and complete work information to support operations of work team or area • demonstrate and support cooperative work practices within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply Basic Process Engineering Principles to Food Processing
Unit Code	IND BKG4 14 0613
Unit Descriptor	This unit provides an introduction to process engineering concepts. It covers the skills and knowledge required to map production processes, measure outputs (yields, material variances) and apply an understanding of the basic principles of systems and equipment commonly used in the food processing industry. Application of this unit includes systems and equipment used for heat transfer, refrigeration, pumping and evaporation/drying.

Elements	Performance Criteria
1. Map a production process	<p>1.1. The scope of a production process to be mapped is identified.</p> <p>1.2. Appropriate process mapping symbols are selected and used.</p> <p>1.3. A map is developed that identifies the relationship of each step in the process.</p>
2. Calculate yields and efficiencies of a production process	<p>2.1. Inputs to and outputs of a production processing system are identified.</p> <p>2.2. Information required to monitor performance of a production process is collected.</p> <p>2.3. Calculate yields, efficiencies and material variances.</p>
3. Apply principles of fluid flow to a production process	<p>3.1. Fluid properties that affect flow are identified.</p> <p>3.2. Components and related equipment used in the pumping system are identified.</p> <p>3.3. Features of the system design that affect performance of the pumping system are identified.</p> <p>3.4. The effect of pumping on the fluid properties is identified.</p> <p>3.5. The operating capacity of pumping systems used in the production process is established.</p> <p>3.6. Procedures for the safe use of pumping equipment are reviewed and/or established.</p>
4. Apply principles of heat transfer to a production process	<p>4.1. Types of heat transfer are identified.</p> <p>4.2. Methods and related equipment used to transfer heat are identified.</p> <p>4.3. Types of heat transfer media are identified.</p> <p>4.4. Operating principles of cooling, chilling and freezing processes are identified.</p>

	<p>4.5. The effect of heat transfer on product/material properties is identified.</p> <p>4.6. The operating capacity of heat transfer equipment used in the production process is established.</p> <p>4.7. Procedures for the safe use of heat transfer equipment are reviewed and/or established.</p>
5. Apply principles of evaporation to a production process	<p>5.1. Methods and related equipment used for evaporation are identified.</p> <p>5.2. The effect of evaporation on product/material properties is identified.</p> <p>5.3. Tests used to determine the concentration of a liquid are identified.</p> <p>5.4. The operating capacity of evaporation equipment used in the production process is established.</p> <p>5.5. Procedures for the safe use of evaporation equipment are reviewed and/or established.</p>
6. Apply principles of drying to a production process	<p>6.1. Methods and related equipment used for drying are identified.</p> <p>6.2. The effect of drying on product/material properties is identified.</p> <p>6.3. Tests used to determine moisture content of materials and/or product is identified.</p> <p>6.4. The operating capacity of drying equipment used in the production process is established.</p> <p>6.5. Procedures for the safe use of drying equipment are reviewed and/or established.</p>
7. Apply principles of process control to management of production processes	<p>7.1. Sensors and instrumentation providing input information to the control system are located.</p> <p>7.2. Consequences of a system malfunction are identified.</p>

Variable	Range
Policies and procedures	Uses of processing equipment and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of Occupational Health and Safety (OHS) and environmental impact
Calculation	of yields, efficiencies and material variances may involve: <ul style="list-style-type: none"> • use of software programs and systems, such as SAP • application of a relevant formula

Evidence Guide	
Critical aspects of Competence	<p>Must demonstrate knowledge and skills competence to:</p> <ul style="list-style-type: none"> • map a production process • apply engineering principles to a food production context • perform required calculations
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • the basic operating features and components of pumps commonly used and typical applications, such as: • rotodynamic (centrifugal) pumps • positive displacement pumps, including reciprocating piston pumps, rotary pumps (including gear and lobe pumps), screw pumps, eccentric rotor pumps (including progressive cavity or mono pumps) and flexible vane pumps • related components of the pumping system, including valves, taps and pipework, and where required, Australian standards and workplace protocols for indicating materials carried by pipework • features in the pumping system design that affects pumping efficiencies, including length of pipework, number and placement of valves and fittings, height of inlet and discharge points, internal surface and diameter of the pipe • the following terms: <ul style="list-style-type: none"> • pressure and pressure drop • velocity • head • typical applications in the food industry and the heat transfer medium used • equipment components of a drying process • heat transfer requirements and equipment used in a production process • tests carried out to determine process outcomes on material/product • operational and safety features of drying equipment • inspections required to identify signs of faulty performance and/or wear • main types of sensors used in food processing to provide input data to control systems and how these sensors operate
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • establish and apply process mapping protocols and symbols used in the workplace to describe a production process • identify the inputs to a production process and the outputs of a production process • identify the data required to calculate yields, efficiencies and material variances • locate sources of information in the workplace, such as printing reports from information management systems

	<ul style="list-style-type: none"> • calculate yields, efficiencies and material variances using software or application of a formula • identify properties of fluids that affect fluid flow, including viscosity, temperature and size, and distribution of particulates • identify types of pumping equipment appropriate for different types of liquids • identify tests or measures taken to monitor operation of pumps and related performance information • apply information to describe pump system capacity in a production process • identify features in the pumping system design that affects pumping efficiencies, including length of pipework, number and placement of valves and fittings, height of inlet and discharge points, internal surface and diameter of the pipe • identify possible effects of pumping on liquid properties • identify operational and safety features of pumps used in a production process, including inspections required to identify signs of faulty performance and/or wear • review and/or establish procedures to define safe pump operation and maintenance • identify heat transfer methods and types of equipment commonly used in the food industry, such as: <ul style="list-style-type: none"> • retorts • jacketed vessels/kettles • heat exchangers, including plate, tubular and scraped surface • cooling tunnels • refrigeration circuits • chillers • freezers • identify typical applications in the food industry and the heat transfer medium used for each heat transfer method • identify the effects of heat transfer on properties of materials/products, including possible consequences where the heat transfer process is not operated within specified parameters • distinguish between conduction, convection and radiation in the application of heat • identify the properties of heat and steam, including an understanding of the terms latent heat, saturated and supersaturated steam • identify the heat transfer requirements and equipment used in a production process, including mapping the stages and equipment used in a heat transfer process and holding stages
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	<ul style="list-style-type: none"> • identify tests or measures taken to monitor performance of heat transfer equipment and related expression of performance information • apply information to describe heat transfer process capacity in a production process • identify operational and safety features of heat transfer equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear • review and/or establish procedures to define safe operation and maintenance of heat transfer processes and equipment used in a production process • identify the effects of evaporation on product, such as: <ul style="list-style-type: none"> • physical property changes such as crystallisation, increased solids/viscosity • intensification of flavour and concentration of acids • changes in microbiological characteristics due to application of heat and reduction of moisture/water activity • identify the equipment components of an evaporation process, such as: <ul style="list-style-type: none"> • heat transfer surface (rising film, falling film, forced circulation and plate) • vapour separator • vapour condenser • vacuum unit • map the stages and equipment used in an evaporation process • identify tests or measures taken to monitor performance of an evaporation process and related expression of performance information • apply information to describe evaporation process capacity in a production process • identify tests carried out to determine material/product solids and related terms (common test methods include baume, refractive index and brix) • identify the processing parameters, time required to achieve the target result and steam required • identify operational and safety features of evaporation equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear • review and/or establish procedures to define safe operation and maintenance of evaporation processes and equipment used in a production process • identify the effects of drying on product, such as: <ul style="list-style-type: none"> • changes that occur at each stage of the drying process • reduction in weight and bulk
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	<ul style="list-style-type: none"> • changes in microbiological characteristics due to application of heat and reduction of moisture/water activity • identify the equipment components of a drying process, such as: <ul style="list-style-type: none"> • hot air drying (fluidised bed driers, spray driers, belt trough driers, and air lift driers) • freeze drying (vacuum) • map the stages and equipment used in a drying process • identify tests or measures taken to monitor performance of a drying process and related expression of performance information • describe drying process • identify tests carried out to determine process outcomes on material/product • identify the processing parameters, time and energy required to achieve the target result • identify operational and safety features of drying equipment used in a production process, including inspections required to identify signs of faulty performance and/or wear • review and/or establish procedures to define safe operation and maintenance of drying processes and equipment used in a production process • identify the main types of sensors used in food processing to provide input data to control systems and how these sensors operate • identify the location and operation of sensors and related data input devices to a control system on equipment used in a production process • for a given production process, identify the criticality of system control and consequences of a system malfunction or power outage • develop and/or review procedures to be followed in the event of a system malfunction or power outage • use communication skills to interpret and complete work information to support operations of work team or area • demonstrate and support cooperative work practices within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply an Understanding of Food Additives
Unit Code	IND BKG4 15 0613
Unit Descriptor	<p>This unit covers the skills and knowledge required to recognize the characteristics and functions of food additives, preservatives, colors and flavors used in food products.</p> <p>This unit is designed to provide an overview of food additives. It is not designed to meet the competence requirements of the person who specifies additives, preservatives, colors or flavors to be used in food. Analysis of the properties of food additives may also be done by a specialist.</p>

Elements	Performance Criteria
1. Identify additives used in food	<p>1.1. Types of food additives and common additives used in food products are identified.</p> <p>1.2. Functions of food additives are identified.</p> <p>1.3. Legal requirements relating to use of food additives are identified.</p> <p>1.4. Legal and quality consequences of incorrect additive addition are identified.</p>
2. Manage use of additives in a production process	<p>2.1. Additives used in product range produced in the production process are identified.</p> <p>2.2. Methods of addition are suited to food additive and production requirements.</p> <p>2.3. Procedures for safe handling and addition of food additives are reviewed and/or established.</p> <p>2.4. Handling, use and disposal of additives is conducted in accordance with environmental standards.</p>

Variable	Range
Policies and procedures	Handling of food additives, preservatives, colors and flavors and related work processes are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of OHS and environmental impact
Groupings	<p>include but are not limited to:</p> <ul style="list-style-type: none"> • preservatives • anti-oxidants • acidulants • organoleptic and nutritional modification agents • colours and flavours, including synthetic and natural, oil and water soluble and lakes (dispersion in oil - applying to colors only) technological aids

Evidence Guide	
Critical aspects of Competence	<p>Must demonstrate knowledge and skills competence to:</p> <ul style="list-style-type: none"> • identify legal, company and quality standards for food additives • identify main additives and groupings • describe the function and user requirements for additives • manage the use of additives to ensure product quality standards are achieved.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • types of food additives and common additives used in food products • the functions of food additives commonly used in food • coding system used to describe food additives, colours and flavors • legal requirements relating to additives used as established by the Food Standards Code • typical quantities used and related units of measurement • preparation requirements, such as forming and breaking emulsions, and preparation of solutions • addition systems and related equipment requirements • Occupational Health and Safety (OHS) issues related to handling of additives • consequences of incorrect additive addition, including Food Standards Code as it relates to food additives used in a given product range • the quality and food safety hazards of incorrect addition • handling and processing conditions that affect the characteristics of colors and flavors
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • identify common food additives and group them by function • identify common types of additives used in the food industry • identify the functions of food additives commonly used in food, such as: <ul style="list-style-type: none"> • texture modifying agents • organoleptic and nutritional modifying agents, including flavors, colors, flavor enhancers, sugar-free sweeteners, minerals, vitamins and food acids • shelf-life enhancing agents, including preservatives, anti-oxidants and food acids • technological aids, including humectants, enzymes, propellants, flour treatment, caking agents and bleaching agents • identify additives, colors and flavors used in product range produced in the workplace, including: <ul style="list-style-type: none"> • coding system used to describe food additives, colors and flavors • legal requirements relating to additives used as established by the Food Standards Code • function in the food product • typical quantities used and related units of measurement

	<ul style="list-style-type: none"> • preparation requirements, and forming and breaking emulsions, and preparation of solutions where required • addition systems and related equipment requirements • health and safety issues related to handling of additives • process recording requirements • consequences of incorrect additive addition, including the Food Standards Code as it relates to food additives used in a given product range • review and/or establish procedures to describe storage, handling and processing conditions that affect the characteristics of colors and flavors, such as: <ul style="list-style-type: none"> ➤ changes in pH ➤ temperature change ➤ exposure to light ➤ exposure to humidity ➤ packaging materials ➤ review and/or establish procedures to describe the method of preparation and addition of additives to food products produced in the workplace ➤ provide examples of incorrect addition of food additives that could occur in the production process, determine appropriate corrective action within company policy and level of authority ➤ use communication skills to interpret and complete work information to support operations of work team or area ➤ demonstrate and support cooperative work practices within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Apply Food Preservation Technologies
Unit Code	<u>IND BKG4 16 0613</u>
Unit Descriptor	<p>This unit covers the skills and knowledge required to apply food preservation technologies and to review their effectiveness and efficiency based on an understanding of food science and technology.</p> <p>This unit applies to quality assurance and technical staff who must oversight the preservation of food. It covers low and high temperature preservation as well as the evaluation of alternative preservation methods such as irradiation and high pressure processing.</p>

Elements	Performance Criteria
1. Apply high temperature preservation methods for food	<p>1.1 The need for heat treatment of foods is established.</p> <p>1.2 Preparatory procedures are implemented for heat treatment processes.</p> <p>1.3 Heat treatment processes are applied and monitored.</p> <p>1.4 The physical, biochemical and microbiological changes to a food product after heat treatment are assessed.</p>
2. Apply low temperature preservation methods for food	<p>2.1 The need for chilling or freezing treatments of foods is established.</p> <p>2.2 Preparatory procedures are implemented for chilling or freezing treatment processes.</p> <p>2.3 Chilling or freezing processes are applied and monitored for food preservation.</p> <p>2.4 The physical, biochemical and microbiological changes to a food product after chilling or freezing treatment processes are assessed.</p>
3. Evaluate alternative existing technologies for food preservation	<p>3.1 Effectiveness and consumer acceptance of irradiation are reviewed.</p> <p>3.2 The effect of irradiation on food products is evaluated.</p> <p>3.3 The application of a high pressure preservation process is reviewed.</p> <p>3.4 The effect of high pressure preservation on food products is evaluated.</p> <p>3.5 A process is developed chart for the implementation of alternative food preservation processes.</p>

Variable	Range
Occupational health and safety requirements	<p>May include :</p> <ul style="list-style-type: none"> • Codes of practice, regulations, MSDSs • Enterprise specific

	<ul style="list-style-type: none"> • Relevant Occupational Health and Safety acts, regulations, national standards, codes of practice and guidance notes which may apply in jurisdiction • Examples of specific task related procedures may include: <ul style="list-style-type: none"> ➢ Handling of chemicals ➢ Use of PPEs
Regulations	<p>May include :</p> <ul style="list-style-type: none"> • Ethiopian Food Standards Code • Enterprise specific procedures • Industry regulations • Ethiopian and international standards including: <ul style="list-style-type: none"> ➢ professional association regulations ➢ industry guidelines ➢ codes of practice ➢ ISO standards ➢ codex alimentations ➢ relevant Acts of Parliament ➢ EPA protocols and regulations regarding refrigerants.
High temperature preservation methods	<p>May include :</p> <ul style="list-style-type: none"> • hot fill • aseptic processing • pasteurization • ultra-high temperature (UHT) • high temperature short time (HTST) processing.
Heating systems	<p>May include :</p> <ul style="list-style-type: none"> • retort, steam jackets • blanching vessels and pressure cookers • microwave and ohmic and inductive heating equipment • pasteurization and sterilization equipment.
Materials, equipment and systems for low temperature treatment	<p>May include :</p> <ul style="list-style-type: none"> • refrigeration systems for chilling of food stuffs • freezing systems • freeze drying systems for heat sensitive products • temperature measuring and recording devices

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> • applying low or high temperature preservation techniques, • documenting physical, biochemical and biological changes to treated food products.
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge to apply and explain:</p> <ul style="list-style-type: none"> • Heat treatment processes • the difference between blanching, steaming, canning and other methods of heat application to food. • the effects of application of heat on qualities and properties of food stuffs. • biochemical, microbiological and physical changes to food as a result of heat application.

- critical quality defects which can occur as a result of heat treatment.
- how operating conditions, such as temperature fluctuations or water /steam contacts with food affects the nutritional/chemical composition of food.
- how product parameters, such as type, size, shape and chemical and biological composition affect the effectiveness of heat treatment on food.
- the calculation and interpretation of Fo, Lethality and Fh values
- Low temperature processes
- the different techniques adopted in industry for freezing food products
- appropriate freezing techniques, including freeze drying, for specific food products
- industrial refrigerants currently used today to maintain low temperatures in chillers and freezers
- the efficiency, cost and environmental impact of such refrigerants
- biochemical, microbiological and physical changes to food as a result of slow or quick freezing.
- critical quality defects which can occur as a result of long term and freezing, of foods.
- how operating conditions, such as temperature fluctuations, humidity and air velocity, affect the effective chilling and freezing and refrigeration of food.
- how product parameters, such as type, size, shape and chemical and biological composition affect the effective chilling and freezing of foods.
- the appropriate freezing techniques for the major types of foods that can be frozen without loss of quality: fruits, vegetables, seafood, meats, baked goods and ready to eat food (e.g. pizzas).
- refrigerants used in past e.g. CFCs & HCFCs, and the ones currently used including HCFC – 123 and various blends
- why certain refrigerants are a problem for the environment e.g. depletion of the ozone layer and 'Greenhouse' effect.
- Irradiation equipment
- types of foods suitable for irradiation
- consumer acceptance and issues with irradiation
- the most suitable irradiation techniques for specific food products.
- physical changes caused by irradiation of food
- impact of irradiation on different species of micro-organisms
- enzymatic and other chemical changes caused by irradiation
- potential quality defects that arise as a result of irradiation of food.
- processing/operating parameters of irradiation equipment as required to meet safety and production requirements
- irradiation equipment safety and operating
- labeling and other regulatory requirements of irradiation of food
- High pressure equipment

	<ul style="list-style-type: none"> • types of foods suitable for high pressure processing • the most suitable high pressure techniques for specific food products. • possible physical changes caused by high pressure processing of food • the impact of high pressure preservation technology on different species of micro-organisms • enzymatic and other chemical changes caused by high pressure processing • potential quality defects that arise as a result of high pressure processing of food. • operating procedures of high pressure processing equipment as required to meet safety and production requirements • labeling and other regulatory requirements of high pressure preservation of food
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Heat treatment processes • identify the different techniques used in industry to apply heat on food as a preservation method. • identify the most suitable heat application techniques for specific food products. • evaluate physical changes caused by high temperature on food • assess the relationship between high temperature and deactivation and destruction of micro-organisms • identify the enzymatic and other chemical changes caused by high temperature • identify quality defects that arise as a result of heat application of food. • enter processing/operating parameters to heat treatment equipment as required to meet safety and production requirements • operate, check and adjust heat treatment equipment performance as required • Low temperature processes • differentiate between chilling and freezing of foods • identify the effects of slow and quick freezing on the quality and properties of food • identify the different techniques used in industry to chill and freeze food stuffs • identify the most appropriate chilling and freezing techniques for specific food products • review the efficiency, cost effectiveness and environmental impact of refrigerants used in chillers and freezers • identify critical quality defects associated with long-term chilling and freezing of foods • enter processing/operating parameters to chilling or freezing treatment equipment as required to meet safety and production requirements

	<ul style="list-style-type: none"> • operate, check and adjust low temperature treatment equipment performance as required • Irradiation processes • identify foods suitable for irradiation • analyze surveys and other feedback indicating consumer acceptance of irradiation • identify the most suitable irradiation techniques for specific food products. • evaluate physical changes caused by irradiation of food • assess the extent of destruction of micro-organisms • identify any enzymatic and other chemical changes caused by irradiation • identify quality defects that arise as a result of irradiation of food. • identify processing/operating parameters of irradiation equipment as required to meet safety and production requirements • operate, check and adjust irradiation equipment performance as required • identify labeling and other regulatory requirements of irradiation of food • High pressure processes • identify foods suitable for high pressure processing • identify the most suitable high pressure techniques for specific food products. • evaluate physical changes caused by high pressure processing of food • assess the extent of destruction of micro-organisms • identify any enzymatic and other chemical changes caused by high pressure processing • identify the potential for quality defects that arise as a result of high pressure processing of food • identify processing/operating parameters of high pressure processing equipment as required to meet safety and production requirements • operate, check and adjust high pressure equipment performance as required
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Perform Microbiological Procedures in the Food Industry
Unit Code	IND BKG4 17 0613
Unit Descriptor	This unit provides an introduction to food microbiology. It covers the skills and knowledge required to perform on-site microbiological laboratory techniques and to interpret the results. This unit applies to laboratory and senior technical staff, and production managers, who are required to monitor the microbiology of food and food processing operations. This unit does require the ability to perform on site tests required in a food processing enterprise, to interpret the results of testing as part of monitoring production processes, and to identify the need for certified laboratory testing.

Elements	Performance Criteria
1. Prepare for safe microbiological work using aseptic techniques	1.1 Work area and equipment are selected for the safe handling of materials that may contain micro-organisms. 1.2 Protective apparel is worn. 1.3 Relevant emergency equipment is selected, for timely response to microbiological accidents. 1.4 Correct disinfection procedures are applied to work areas before, and after use. 1.5 Standard precautions, when handling biological materials, are applied. 1.6 Relevant emergency equipment is selected, for timely response to microbiological accidents. 1.7 Correct disinfection procedures are applied to work areas before, and after use.
2. Process microbiological samples and undertake microscopy	2.1 Thin smears of samples for subsequent staining are prepared and stained. 2.2 Liquid films of specimens, for direct observation, are prepared. 2.3 Relevant samples are concentrated to facilitate microscopy. 2.4 Stereo and compound microscopes are set up correctly, and causes of variations in image quality are identified. 2.5 Microscopes are cleaned and stored according to procedures 2.6 Dry, wet and stained microbiological specimens are correctly examined.
3. Apply aseptic techniques correctly to cultivate and isolate micro-organisms	3.1 Broths, slopes, and plates of typical media are prepared. 3.2 Aseptic transfers of micro-organisms to prepared liquid and solid media are performed. 3.3 Bacteria are streaked onto agar plates to isolate single colonies using aseptic technique.

	3.4 Temperature conditions and gaseous environments are selected which are suitable for the growth of a range of common micro-organisms.
4. Estimate the number of micro-organisms in food and water samples	4.1 Samples are prepared for testing. 4.2 Serial dilutions are accurately and aseptically carried out. 4.3 Bacterial growth in the sample is estimated and recorded 4.4 The bacterial load of the sample is calculated and the results reported.
5. Perform and interpret tests to assist in the identification of common bacterial genera.	5.1 Tests are performed on pure cultures to assist in the identification of major bacterial groups 5.2 Pure cultures selected from common bacterial genera are prepared. 5.3 Stained specimens are selected and prepared to demonstrate features and cellular characteristics of major bacterial groups
6. Apply quality assurance procedures commonly used in a food testing laboratory.	6.1 The controls used to monitor accuracy and precision of results in a microbiological laboratory are applied 6.2 All tests are performed in accordance with enterprise quality procedures 6.3 All test data is recorded and reported in accordance with enterprise quality procedures
7. Interpret the results of laboratory testing and relate to the production plan	7.1 Laboratory test results are accessed 7.2 Laboratory tests are compared to allowable variances and critical limits in production 7.3 Adjustments are made to recipes or operating procedures to ensure critical limits are complied with 7.4 The need for further certified testing is established

Variable	Range
Policies and procedures	<ul style="list-style-type: none"> • Codes of practice, regulations, Material Safety Data Sheets (MSDSs) • Enterprise specific: Standard Operating Procedures(SOPs): • safety requirements for equipment, materials or products • cleaning, hygiene, personal hygiene requirements • incident and accident/injury reports • Ethiopian and international standards, including: Food Standards Code 2002 • Enterprise Standard Operating Procedures(SOPs) • Acts of Parliament
Occupational health and safety requirements	<ul style="list-style-type: none"> • Codes of practice • Material Safety Data Sheet • Enterprise specific.

Regulations	<p>Ethiopian and international standards including:</p> <ul style="list-style-type: none"> • professional association regulations • industry guidelines and codes of practice • industry regulations • Food Standards Code • ISO Standards • codex alimentarius, Federal and state food regulations
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Evidence Guide	
Critical aspects of competence	<p>A candidate must demonstrate the ability to:</p> <ul style="list-style-type: none"> • perform on site tests required in a food processing enterprise, • interpret the results of testing as part of monitoring production processes, and • identify the need for certified laboratory testing.
Underpinning Knowledge	<p>Demonstrate Knowledge of:</p> <ul style="list-style-type: none"> • physiological characteristics of animal, plant and microbial cells • microbiological terminology • use of protective clothing and biological safety cabinets • disinfection and sterilization as applied to practical aspects of microbiology • microbial diversity and growth • micro-organisms of significance in the production and spoilage of foods • chemical and physical methods available for controlling microbial growth • methods for sterilization or control of a given micro-organism • the Gram reaction in the identification of common types of bacteria • advantages and disadvantages of the identified methods are established. • rationale for sample dilution when preparing materials for enumerating organisms and other pure culture work • relevant health, safety and environment requirements. • chemical and physical methods available for controlling microbial growth • quality assurance procedures commonly used in a food testing laboratories.
Underpinning Skills	<p>Demonstrate ability to:</p> <ul style="list-style-type: none"> • identify types of animal, plant and microbial cells and their components and functions • safely perform tasks for the isolation, identification and cultivation of microorganisms • set up and use microscope slides and a microscope • avoid contamination of self, other people, the work area, equipment or the samples under test • avoid contamination of media or reagents during manipulations involving transfer of cultures

	<ul style="list-style-type: none"> • identify artefact or image aberration attributable to misalignment or obstruction of light paths or condensers used in bright field, dark ground, or with other steps in microscopic examinations • recognize the use of the Gram reaction in the identification of common types of bacteria • accurately describe forms of bacterial colonies on common media used in bacteriological investigations in the food industry • correctly and safely perform tests to assist in the identification of bacteria • identify and correctly use methods for the control of growth of micro-organisms • report all incidents or accidents • disinfect any spillage and safely dispose of all contaminated materials • decontaminate the work area upon completion of work. • ensure that quality assurance procedures, commonly used in a food testing laboratories, are used.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Conduct Food Safety Audits
Unit Code	IND BKG4 18 0613
Unit Descriptor	This unit covers the skills and knowledge required to verify and confirm validation of food safety programs in the context of food safety legislation and client requirements

Elements	Performance Criteria
1. Define the scope of the audit	<p>1.1. Audit scope is identified and defines the extent of the audit to meet legislative and audit client requirements.</p> <p>1.2. Audit criteria meet legislative and client requirements.</p> <p>1.3. The definition and levels of non-conformity and related reporting responsibilities are identified consistent with legislative requirements and client requirements.</p> <p>1.4. Evidence required to address audit scope and criteria is identified and appropriate collection methods are selected.</p> <p>1.5. Food safety management system documents are reviewed to determine adequacy for the purposes of the audit.</p>
2. Plan the audit	<p>2.1 An audit plan is developed that includes definitions and levels of non-conformity to meet the audit scope.</p> <p>2.2 Plan includes audit purpose, scope and relevant templates or approved food safety program.</p> <p>2.3 Activities and responsibilities for the audit are identified.</p> <p>2.4 Audit timing (as required by legislation and/or client) is identified, including timetable for each stage of the audit.</p> <p>2.5 Resource, personnel and reporting requirements are identified.</p> <p>2.6 Follow up and completion procedures are identified.</p> <p>2.7 Communication protocols are established to facilitate the effective exchange of information and suited to the auditee environment.</p>
3. Confirm that the food business has documented required preliminary work	<p>3.1 The food and the method of distribution are defined.</p> <p>3.2 Customers and intended use of food is identified.</p> <p>3.3 The process is described and documented.</p> <p>3.4 The food business has checked their documentation for accuracy and completeness.</p>
4. Confirm the food safety program is supported by a tool or template or has been validated	<p>4.1 The documented food safety program and related procedures and prerequisite programs are assessed to confirm that they have a prescriptive tool or have been validated by a technical expert.</p> <p>4.2 The food business method of identifying and analyzing food safety hazards is reviewed.</p>

	<p>4.3 Templates or the approved food safety program are correctly selected to meet audit scope.</p> <p>4.4 Templates or the approved food safety program are appropriately adapted to suit the needs of the business without adversely affecting food safety.</p> <p>4.5 Documented verification records are reviewed to confirm that the requirements of the food safety program are being met.</p> <p>4.6 Corrective actions required where processes are identified as not meeting targets or critical limits are assessed to confirm they meet the requirements of the template or food safety program.</p> <p>4.7 Food safety prerequisite programs are assessed to confirm they are appropriate for the food business/industry sector to maintain a safe food environment.</p> <p>4.8 Food safety program documents are reviewed to confirm currency, accuracy and adequacy to facilitate maintenance of an adequate food safety program.</p>
<p>5. Conduct the audit (Collect evidence to review and assess implementation of food safety programs)</p>	<p>5.1 Information on the audit scope and methodology is communicated in an effective and timely manner.</p> <p>5.2 Stages and activities of the audit process are followed.</p> <p>5.3 Methods used by the food business to carry out preliminary work, identify food safety hazards and assess level of risk are reviewed to confirm that they are appropriate and correctly applied.</p> <p>5.4 Evidence used by the food business to support identification of control measures and establish control limits is identified and evaluated to determine adequacy and relevance.</p> <p>5.5 Methods used by the food business to control hazards and determine corrective action where processes are identified as not meeting targets or critical limits are reviewed to confirm they are adequate, effective and appropriate.</p> <p>5.6 Evidence is collected to confirm that the documented food safety policies and procedures are working effectively, reflect actual practice and are consistently applied.</p> <p>5.7 Evidence is collected to confirm that:</p> <ul style="list-style-type: none"> • documented programs and procedures are working effectively, reflect actual practice and are consistently applied • food safety monitoring and corrective actions are carried out according to procedure • safety prerequisite programs are effective and consistently followed

	<ul style="list-style-type: none"> • food safety records are completed and provide an accurate record of events • records are accessed and analyzed to confirm effective program maintenance in accordance with the template or food safety program • food safety skills and knowledge of food business personnel is commensurate with their work role • the food safety program has been internally monitored and assessed, updated and improved by a technical expert
6. Manage the audit process	<p>6.1. Audit progress is monitored against the audit plan and any variation to plan is identified and addressed.</p> <p>6.2. Circumstances requiring the audit plan to be adjusted are identified and negotiated in a timely manner.</p> <p>6.3. Audits address audit scope and are conducted within time and resource constraints to meet quality and professional standards.</p> <p>6.4. The audit process is reviewed to identify opportunities for improvement.</p>
7. Consolidate audit outcomes	<p>7.1 Evidence is analyzed and assessed to identify any areas of non-compliance with legislation and/or client requirements as appropriate to the audit scope.</p> <p>7.2 Non-conformities are identified and classified as agreed by the audit plan.</p> <p>7.3 Non-conformities are reported in accordance with agreed client and/or legislative requirements.</p> <p>7.4 Audit findings are communicated to the auditee.</p> <p>7.5 Audit reports and/or certificates are prepared and submitted or presented as required to meet regulatory and client requirements.</p> <p>7.6 A corrective action implementation plan defining proposed actions and timelines developed by the auditee is reviewed by the auditor to confirm that template or food safety program requirements are met.</p> <p>7.7 Audit findings are reviewed to confirm that evidence is appropriate and sufficient and findings are accurate or approved food safety program.</p> <p>7.8 The food safety management system is reviewed to identify areas of potential improvement of the system according to audit scope.</p>

8. Confirm and close out corrective actions	<p>8.1. Implementation and effectiveness of corrective actions are monitored and verified and any variation to the food safety plan is identified and addressed.</p> <p>8.2. Audit records are maintained to record corrective actions.</p>
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Variable	Range
Audit scope	<p>may include:</p> <ul style="list-style-type: none"> • physical locations • products • processes • time period covered by the audit • extent of authority of the auditor
Legal requirements	<p>may include:</p> <ul style="list-style-type: none"> • Food Standards Code • relevant state legislation and related codes of practice, including industry sector-specific legislation and related codes of practice, such as those relating to meat, seafood, dairy and primary production and processing • regulatory and commercial requirements relevant to importing countries • other legislation which may impact on the conduct of a food safety auditor and may include legislation covering: <ul style="list-style-type: none"> ➢ OHS, anti-harassment, anti-discrimination and industrial relations ➢ trade practices legislation ➢ environmental risk management ➢ legal contracts or agreements
Audit client	<p>May include:</p> <ul style="list-style-type: none"> • Audit client refers to the organization or person requesting an audit (system owner). This may be the same as the audited or any other organization which has the regulatory or contractual right to request an audit. • The system owner may be the regulator
Audi tee	<ul style="list-style-type: none"> • Audited refers to the organization being audited
Food safety audits	<p>May include:</p> <ul style="list-style-type: none"> • Audits may be conducted for either regulatory or commercial food safety systems for low, medium or high risk food safety hazards
Audit client requirements	<p>May include:</p> <ul style="list-style-type: none"> • legal requirements • food safety management system requirements • compliance with client site operational policies and procedures • confidentiality • business size, activities and processes • business culture • professional standards of conduct

Audit criteria	<p>may include:</p> <ul style="list-style-type: none"> • management systems policies and procedures • industry standards or codes • contractual requirements • international treaties and conventions
Levels of non-conformity	<p>may include:</p> <ul style="list-style-type: none"> • the management system • the audit client • legislation • where legislation applies, definitions may be determined by: <ul style="list-style-type: none"> ➢ primary industry jurisdiction ➢ primary food production jurisdiction
Audit evidence	<p>May include:</p> <ul style="list-style-type: none"> • the client and/or the regulatory authority • Audit evidence should be based on objective information rather than hearsay and may include: <ul style="list-style-type: none"> • system records • evidence collection records • statements of fact or other information relevant to the audit criteria and which is verifiable • observations • records of audit stage progression
Evidence collection methods and sources	<p>may include:</p> <ul style="list-style-type: none"> • observation • interviews • checklists • auditee documentation review • reports/data from other sources, such as customer feedback, technical references, computerized databases • results of analyses
Food safety management system	<p>May includes:</p> <ul style="list-style-type: none"> • Commitment from management, procedures and practices to identify and control food safety hazards and prevent their recurrence. It may incorporate recognized food safety tools, such as HACCP and its prerequisite programs
Resource requirements	<p>may include:</p> <ul style="list-style-type: none"> • audit personnel directly involved in undertaking the audit • access to relevant personnel and information within the business • access to any additional resources as required
Food businesses	<p>refers to a business, vehicle, enterprise or activity where food is produced, processed, stored, displayed, transported and/or sold. It may also include primary producers</p>
Preliminary work	<p>includes but is not limited to:</p> <ul style="list-style-type: none"> • identifying food to be covered by the food safety program • defining the food and the method of distribution • identifying customers and intended use of food

	<ul style="list-style-type: none"> describing the process (flowchart) checking for accuracy and completeness of the previous steps
Validation	refers to obtaining evidence to confirm that a HACCP-based food safety program is complete and effective and will deliver the expected food safety outcomes
Verification	refers to methods and procedures used to carry out monitoring, including sampling and testing to provide evidence that the specifications set by relevant legislation and codes of practice continue to be met
Audit records	are maintained to demonstrate the implementation of the audit process. These may include but are not limited to: <ul style="list-style-type: none"> audit plans audit reports non-conformity reports corrective action reports and follow up reports
Close out	Auditors have different levels of responsibility and authority to close out audits according to the level of non-conformity and whether they are an authorized officer or a commercial auditor. Closing out may involve notifying the regulator with the power to enforce legislation
Commercial auditor	refers to any auditor other than a regulatory auditor, who is external to and independent of the food business being audited
Risk-based approaches	to controlling food safety are typically based on HACCP, described in the Codex Alimentarius guidelines
Prerequisite programs	may include: <ul style="list-style-type: none"> layout, design and construction of buildings and facilities supplies of air, water, energy and other utilities equipment, including preventative maintenance, sanitary design and accessibility for maintenance and cleaning support services, including waste and sewage disposal Operational prerequisite programs. These may include: <ul style="list-style-type: none"> personal hygiene cleaning and sanitation pest control measures for the prevention of cross-contamination packaging and labeling procedures supplier assurance chemical storage employee training maintenance calibration document control internal audit programs traceability and recall programs on-farm food safety schemes inspecting and testing regimes, including analytical and microbiological testing

Critical control point	is a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level
Critical limit	refers to criterion which separates acceptability from unacceptability

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> Identify food safety legislation applying to a food business. A minimum of two scenarios must be covered providing that at least one food business operates in a market segment that has to meet compliance requirements in place of or in addition to the Food Standards Code. The assessment activity must: identify the relevant legislation applying to the food business taking account of the industry sector, range of food handling activities undertaken and the markets into which products and/or services are sold. locate advice on relevant authorities and enforcement agencies in a state or territory and for international markets as appropriate. explain the legal responsibilities of a given food business. Plan and conduct an audit that complies with legal and client requirements as appropriate. The criteria and evidence requirements may be developed to apply to an actual or hypothetical food business. The assessed must substantiate: <ul style="list-style-type: none"> how audit scope and criteria meet legislative and client requirements. the evidence required to assess compliance with the criteria and to support an objective, reliable and consistent audit outcome. definitions, levels and related reporting of non-conformance to comply with legislative requirements. Submit completed audit records for the selected audit including the final audit report, non-conformity reports, corrective action reports, follow up reports and suggestions for improvements to the food safety management system and to the audit process. These latter items may be documented in personal notes rather than part of the formal audit report according to the audit scope.
Underpinning Knowledge and Attitudes	<p>Auditor roles and responsibilities:</p> <ul style="list-style-type: none"> audit activities and stages, including guidelines on audit stages and activities as outlined in ISO 19011:2002 personal attributes required of food safety auditors, including those outlined in ISO 19011:2002, and additional client requirements where required role, responsibilities and powers of enforcement agencies, authorized officers and commercial auditors, including reporting responsibilities, legal liability of auditors and delegation of

	<p>authority to commercial auditors as may apply in some states and territories</p> <ul style="list-style-type: none"> • relevant competencies and certification/registration criteria and processes applying to both regulatory and commercial auditors • audit management to develop and implement an audit against an agreed plan, including the scope/level of authority to revise the resource and allocate time allocations to take account of variation to plan <p>Food safety management systems</p> <ul style="list-style-type: none"> • purpose and intent of each element of a food safety management system • the underlying principles of risk-based approaches to controlling food safety hazards, including HACCP • vocabulary and terms relating to food safety, including terms and jargon to describe technical processes, industry standards and common biological and chemical terms • food safety management system knowledge relevant to the system being audited., including system requirements, definitions and levels of non-compliance and related reporting responsibilities as defined by legal and management system requirements • the interaction between different types of management systems, including the impact of food safety decisions on other management systems, such as Occupational Health and Safety (OHS), quality, environmental risk management and animal welfare • technical knowledge required to assess the adequacy of the food safety management system performance and corrective actions • role of prerequisite programs in controlling hazards, including the relationship between prerequisite programs and risk-based approaches, such as HACCP to controlling food safety hazards • information handling and management system protocols, including issues, such as rights of access to information, maintenance of confidentiality of audit information and reports and information dissemination requirements <p>Food safety legislation:</p> <ul style="list-style-type: none"> • the purpose and intent of food safety legislation, including sources of information on importing country requirements and of requirements of countries and retailer driven systems in importing markets • the content covered by the Food Standards Code and/or other relevant standards • the structure and responsibilities of commonwealth, state and territory government departments and local government to manage and implement food safety legislation, including where to find information on relevant legislative requirements, product or industry sector legislation and regulations and import and export market requirements
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	<ul style="list-style-type: none"> • the regulatory framework and specific legislation relevant to the audit, including relevant risk profiling or classification systems where they apply • sources of information on legislation and codes governing primary production and primary processing • requirements for scheduling and conducting further auditing as determined by food safety legislation and/or client system requirements • legal liability of auditors and protection against litigation and professional practice issues, including the circumstances under which an auditor could be prosecuted and insurance requirements • the role of auditors when called on to provide evidence as a witness in court <p>Food safety audit processes:</p> <ul style="list-style-type: none"> • preliminary work required to identify food to be covered by the food safety program, define the food and the method of distribution, identify customers and intended use of food, describe the process (flowchart) and check accuracy and completeness • methods used identify food safety hazards and assess food safety hazard risk levels taking account of severity and likelihood of occurrence • methods used to identify critical control points and establish critical limits, suited to the nature of the hazard, the requirements of the audit and the industry sector • methods used to validate control techniques and critical limits, including industry or sector codes of practice, technical standards and research • types of evidence, including the difference between objective and hearsay evidence and methods for recording and managing evidence to provide reliable reference information in the event that evidence is challenged • evidence collection methods, including record sampling and sample analysis, and the evidence collection options relevant to a given audit situation, the reliability of each collection method and the range/extent of evidence collection methods required to ensure that audit outcomes are objective, consistent, fair and reliable • methods to assess skill requirements and options to confirm that the responsible personnel within the food business have the required skills and knowledge of food safety and food hygiene relevant to the food business • circumstances, implications and responsibilities in the event that the auditee requests that the audit ceases • circumstances and authority of an auditor to initiate cessation of an audit • understanding of the context in which audits are conducted,
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	<p>including workplace culture and preferred communication methods, industry, process and/or product knowledge and related jargon</p> <ul style="list-style-type: none"> • information recording requirements and audit reporting requirements
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • locate relevant commonwealth, state and/or territory legislation, regulations and related codes of practice and determine the legal responsibilities of food businesses relevant to the industry sector • plan and manage audit activities • communicate information in ways appropriate to the purpose and the audience and to facilitate opening and closing meetings • negotiate and facilitate audit processes, including following meeting procedures and resolving issues • select and use research skills relevant to audit activities, including researching technical sources to validate food safety programs and collecting evidence to support verification • consolidate audit findings based on objective evidence • prepare records and reports appropriate to the purpose of the audit and the needs of the audited and the client (system owner/regulator)
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competency may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level IV	
Unit Title	Perform Food Tests
Unit Code	IND BKG4 19 0613
Unit Descriptor	<p>This unit title covers the ability to interpret food test requirements, prepare samples, conduct pre-use and calibration checks on equipment and perform routine testing of raw food materials, in-process materials and final products. These tests will involve several measurement steps. The unit includes data processing and some interpretation of results and tracking of obvious test malfunctions where the procedure is standardized. However, personnel are not required to analyze data, optimize tests/procedures for specific samples or troubleshoot equipment problems where the solution is not apparent.</p> <p>This Unit Titles applicable to laboratory or technical assistants and instrument operators working in the food and beverage processing industry sectors.</p>

Elements	Performance Criteria
1. Interpret and schedule test requirements	<p>1.1. Test request is reviewed to identify samples to be tested, method and equipment/instruments involved are tested.</p> <p>1.2. Hazards and enterprise controls associated with the sample, preparation/test methods, reagents and/or equipment are identified.</p> <p>1.3. Parallel work sequences are planned to optimize throughput of multiple sets of samples, if appropriate.</p>
2. Receive and prepare food samples	<p>2.1. Samples are logged using Standard Operating Procedures (SOPs).</p> <p>2.2. Sample description is recorded, compared with specification and discrepancies are noted and reported.</p> <p>2.3. Samples and standards are prepared in accordance with food testing requirements.</p> <p>2.4. Traceability of samples is ensured from receipt to reporting of results.</p>
3. Check equipment before use	<p>3.1. Equipment/instruments are set up in accordance with test method requirements.</p> <p>3.2. Pre-use and safety checks are performed in accordance with relevant enterprise and operating procedures.</p> <p>3.3. Faulty or unsafe components and equipment are identified and reported to appropriate personnel.</p> <p>3.4. Equipment calibration is checked using specified standards and procedures, if applicable.</p> <p>3.5. Quarantine out of calibration equipment/instruments.</p> <p>3.6. Ensure reagents required for the test are made available and meet quality requirements.</p>

4. Test samples to determine food components and characteristics	<p>4.1. Equipment/instruments is/are operated in accordance with test method requirements.</p> <p>4.2. Tests/procedures on all samples and standards are performed, if appropriate, in accordance with specified methods.</p> <p>4.3. Equipment/instruments are shut down in accordance with operating procedures.</p>
5. Process data	<p>5.1. Test data noting atypical observations is recorded.</p> <p>5.2. Calibration graphs are constructed, if appropriate and results computed for all samples from these graphs.</p> <p>5.3. Ensure values are calculated consistent with reference standards and expectations.</p> <p>5.4. Uncertainty of measurement is estimated and documented in accordance with enterprise procedures, if required.</p> <p>5.5. Results are recorded and reported in accordance with enterprise procedures.</p> <p>5.6. Trends in data and/or results are interpreted and reported out of specification or atypical results promptly to appropriate personnel.</p> <p>5.7. If basic procedure or equipment problems have led to atypical data or results is determined.</p>
6. Maintain a safe work environment	<p>6.1. Established safe work practices and personal protective equipment are used to ensure personal safety and that of other laboratory personnel.</p> <p>6.2. The generation of wastes and environmental impacts is minimized.</p> <p>6.3. Ensure the safe collection of laboratory and hazardous waste for subsequent disposal.</p> <p>6.4. Equipment and reagents are cared for and stored as required.</p>
7. Maintain laboratory records	<p>7.1. Approved data is entered into laboratory information management system (LIMS).</p> <p>7.2. Confidentiality and security of enterprise information and laboratory data are maintained.</p> <p>7.3. Equipment and calibration logs are maintained in accordance with enterprise procedures.</p>

Variable	Range
Codes of practice	Where reference is made to industry codes of practice, and/or Ethiopian/international standards, it is expected the latest version will be used

Standards, codes, procedures and/or enterprise requirements	<p>may include:</p> <ul style="list-style-type: none"> • Ethiopian and international standards such as: • Food microbiology - General introduction and list of methods • The international system of units (SI) and its application • General requirements for the competence of testing and calibration laboratories • Ethiopian code of good manufacturing practice for medicinal products (GMP) • Ethiopian Quarantine and Inspection Service • Ethiopian Quarantine and Inspection Service mport Guidelines • calibration and maintenance schedules • data quality procedures • enterprise recording and reporting procedures • equipment startup, operation and shutdown procedures • gene technology regulations • material safety data sheets (MSDS) • material, production and product specifications (including maximum residue levels) • national measurement regulations and guidelines • principles of Good Laboratory Practice (GLP) • production and laboratory schedules • quality manuals, equipment and procedures manuals • SOPs and in-house methods • Therapeutic Goods Regulations 1009
Sample preparation processes	<p>may include:</p> <ul style="list-style-type: none"> • grinding • milling • preparation of discs • dissolving • ashing • refluxing • extracting • filtration • evaporation • flocculation • precipitation and centrifugation • culturing of selected micro-organisms • digestion • degassing • temperature equilibration
Principles and concepts underpinning the test/procedure	<p>may include:</p> <ul style="list-style-type: none"> • ions, atoms, molecules, bonding, affinities and related properties • chemical reactions (acid/base and complexiometric) • structure and properties of proteins, lipids, carbohydrates, vitamins and minerals

	<ul style="list-style-type: none"> • food additives, flavorings and essences • nutrient value of major food groups • interaction of water with food components • microbiology, including incubation characteristics, selective media, growth stages of bacterial cultures and reference organisms • microbiology of organisms with public health significance • chemical and microbial changes in food • food preservation techniques • fermentation process • packaging and controlled atmosphere • elastic properties of materials and hardness • cohesive/adhesive forces, fluid flow and viscosity • changes of state, energy content and enthalpy change • electromagnetic spectrum and absorption, emission and refraction of light • quality control program for raw materials, process control and finished product inspection • genetically modified foods
Food tests and procedures	<p>may include:</p> <ul style="list-style-type: none"> • visual and sensory tests: <ul style="list-style-type: none"> ➤ appearance, taste, texture, color and odor of foods ➤ melting point, boiling point and freezing point ➤ sediments and scorched particles ➤ foreign matter ➤ damage to packaging and compatibility of packaging ➤ dispersability • chemical analysis: <ul style="list-style-type: none"> ➤ pH, conductivity and moisture content ➤ solids, fats, proteins and carbohydrates ➤ ash analysis and salt analysis ➤ titratable acids, iodine values and peroxide values ➤ enzyme activity ➤ specific ions and active ingredients • microbiological tests and procedures: <ul style="list-style-type: none"> ➤ isolation, detection, classification to genera and some species or micro-organisms ➤ enumeration and nomenclature of desirable/ non-desirable micro-organisms ➤ propagation and maintenance of yeast, bacteria and cultures used in food processing ➤ measurement of spoilage and contamination ➤ sterility, hygiene and sanitation checks • optical/spectrometric tests: <ul style="list-style-type: none"> ➤ ultraviolet-visible (UV-VIS) spectrophotometry ➤ refractive index ➤ optical rotation • physical/mechanical tests:

	<ul style="list-style-type: none"> ➤ mass, volume, density, specific gravity and particle size ➤ foreign matter ➤ rheology, viscosity and gel strength ➤ 'wetability' and 'whipability' ➤ homogenisation ➤ browning (sugar content) ➤ elasticity, hardness, compressibility and strength ➤ starch quality • thermal tests: <ul style="list-style-type: none"> ➤ calorific values ➤ stability of products and effectiveness of heat treatments
Tests	<p>May include:</p> <ul style="list-style-type: none"> • control of starting materials, in-process materials and finished products • health monitoring • basic troubleshooting of production processes
Hazards	<p>may include:</p> <ul style="list-style-type: none"> • microbiological organisms and agents associated with soil, air, water, plants, animal tissue and fluids • chemicals, such as acids, heavy metals, pesticides and hydrocarbons • aerosols from broken centrifuge tubes and pipetting • sharps and broken glassware • flammable liquids and gases • cryogenics, such as dry ice and liquid nitrogen • fluids under pressure, such as steam and industrial gases • sources of ignition • high temperature ashing processes • disturbance or interruption of services
Hazard control measures	<p>may include:</p> <ul style="list-style-type: none"> • ensuring access to service shut-off points • recognizing and observing hazard warnings and safety signs • labeling of samples, reagents, aliquoted samples and hazardous materials • handling and storage of hazardous materials and equipment in accordance with labeling, MSDS and manufacturer's instructions • identifying and reporting operating problems or equipment malfunctions • cleaning and decontaminating equipment and work areas regularly using enterprise procedures • using personal protective clothing and equipment, such as gloves, safety glasses, coveralls, gown, body suits and respirators • using containment facilities (PCII, PCIII and PCIV physical containment laboratories), containment equipment (biohazard containers, laminar flow cabinets, Class I, II and III biohazard cabinets) and containment procedures

	<ul style="list-style-type: none"> • following established manual handling procedures • reporting abnormal emissions, discharges and airborne contaminants, such as noise, light, solids, liquids, water/waste water, gases, smoke, vapor, fumes, odor and particulates to appropriate personnel
Records	<p>may include:</p> <ul style="list-style-type: none"> • test and calibration results • equipment use, maintenance and servicing history • faulty or unsafe equipment
Occupational Health and Safety (OHS) and environmental management requirements	<p>May include:</p> <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the Ethiopian Health and Nutrition Research Institute

Evidence Guide	
Critical aspects of Competence	<p>Must demonstrate knowledge and skills competence to:</p> <ul style="list-style-type: none"> • interpret test methods/procedures accurately • prepare and test samples using procedures appropriate to the nature of sample • perform calibration checks (if required) • safely operate test equipment/instruments to enterprise standards and/or manufacturer's specification • prepare calibration graphs and calculate results using appropriate units and precision • apply basic theoretical knowledge to interpret gross features of data and make relevant conclusions • identify atypical results as out of normal range or an artefact • trace and source obvious causes of an artefact • communicate problems to a supervisor or outside service technician • record and communicate results in accordance with enterprise procedures • maintain security, integrity, traceability of samples, sub-samples, test data/results and documentation.
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • principles and concepts underpinning the test/procedure • purpose of tests • metrology techniques underpinning test/procedure including uncertainty • principles and concepts related to equipment/instrument operation and testing • function of key components of the equipment/instrument

	<ul style="list-style-type: none"> • effects on the test of modifying equipment/instrument variables • enterprise and/or legal traceability requirements • relevant health, safety and environment requirements
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • using instruments for qualitative and/or quantitative analysis • interpreting test methods and procedures • sample preparation procedures • performing calibration checks • using instruments for qualitative and/or quantitative analysis • maintaining and evaluating reagents • troubleshooting basic equipment/method • calculations to estimate uncertainty and produce results • preparing calibration graphs and calculating results using appropriate units and precision • applying theoretical knowledge to interpret gross features of data and make relevant conclusions such as identifying atypical results as out of normal range or an artefact • tracing and sourcing obvious causes of an artefact • recording and communicating results in accordance with enterprise procedures • maintaining security, integrity, traceability of samples, sub-samples, test data, results and documentation
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Implement and Monitor Environmentally Sustainable Work Practices
Unit Code	IND BKG4 20 0613
Unit Descriptor	This competence covers the outcomes required to effectively analyze the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

Elements	Performance Criteria
1. Investigate current practices in relation to resource usage.	<p>1.1 Environmental regulations applying to the enterprise are identified.</p> <p>1.2 Procedures are assessed for assessing compliance with environmental regulations.</p> <p>1.3 Information on environmental and resource efficiency systems and procedures is collected, and provided to the work group where appropriate.</p> <p>1.4 Current resource usage is measured and recorded by members of the work group.</p> <p>1.5 Current purchasing strategies are analyzed and recorded.</p> <p>1.6 Current work processes are analyzed to access information and data and assist in identifying areas for improvement.</p>
2. Set targets for improvements.	<p>2.1 Input is sought from stakeholders, key personnel and specialists.</p> <p>2.2 External sources of information and data are accessed as required.</p> <p>2.3 Alternative solutions are evaluated to workplace environmental issues.</p> <p>2.4 Efficiency targets are set.</p>
3. Implement performance improvement strategies.	<p>3.1 Techniques/tools are sourced to assist in achieving targets.</p> <p>3.2 Continuous improvement strategies are applied to own work area of responsibility and ideas and possible solutions are communicated to the work group and management.</p> <p>3.3 Environmental and resource efficiency improvement plans are integrated for own work group with other operational activities and implemented.</p> <p>3.4 Suggestions and ideas about environmental and resource efficiency management are sought from stakeholders and acted upon where appropriate.</p> <p>3.5 Costing strategies are implemented to fully value environmental assets.</p>

4. Monitor performance.	<p>4.1 Outcomes are documented and reports on targets communicated to key personnel and stakeholders.</p> <p>4.2 Strategies are evaluated.</p> <p>4.3 New targets are set and new tools and strategies are investigated and applied.</p> <p>4.4 Successful strategies are promoted and participants rewarded where possible.</p>
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Variable	Range
Compliance	Compliance includes meeting relevant federal, state and local government laws, by-laws, regulations and codes of practice.
Techniques and tools	<p>may include :</p> <ul style="list-style-type: none"> • visual workplace concepts • measurement, display and/or recording devices • changed work practices/procedures • competence development and awareness training • process and equipment items
Procedures	<p>include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.</p> <p>Where reference is made to industry codes of practice, and/or Ethiopian/international standards, the latest version must be used.</p>
Environmental and resource efficiency issues	<p>May include:</p> <ul style="list-style-type: none"> • addressing environmental and resource sustainability initiatives such as Environmental Management Systems, action plans, surveys and audits • reference to standards, guidelines and approaches such as: • ISO 14001 Environmental Management Systems • Life Cycle Analyses • Cradle to cradle • Global Reporting Initiative • Ecological foot printing • Triple Bottom Line reporting • Product Stewardship • determining enterprise's most appropriate waste treatment including waste to landfill, recycling, re-use and wastewater treatment • applying the waste management hierarchy in the workplace • initiating and/or maintaining appropriate enterprise procedures for operational energy consumption, including stationary energy and non stationary (transport) • efficient use of water • minimizing greenhouse gas emissions • use of controls to minimize the risk of environmental damage from hazardous substances

Measure	<p>May include:</p> <ul style="list-style-type: none"> • material fed to/consumed by plant/equipment • plant meters and gauges • job cards including kanbans • examination of invoices from suppliers • measurements made under different conditions • examination of relevant information and data • Others as appropriate to the specific industry contexts.
Incidents	<p>may include:</p> <ul style="list-style-type: none"> • breaches or potential breaches of regulations • occurrences outside of standard procedure which may lead to lower environmental performance
Purchasing strategies	<p>may include:</p> <ul style="list-style-type: none"> • influencing suppliers to take up environmental sustainability • selecting materials/components with a lower environmental profile.
Stakeholders, key personnel and specialists	<p>may including:</p> <ul style="list-style-type: none"> • employees at all levels of the organization • customers • suppliers • other organizations • key personnel within the organization, and specialists outside it who may have particular technical expertise
Suggestions	<p>May include:</p> <ul style="list-style-type: none"> • prevent and minimize environmental risks and maximize opportunities • reduce emissions of greenhouse gases • reduce use of non-renewable resources • make more efficient use of energy, water and other resources • maximise opportunities to re use and recycle materials • identify strategies to offset or mitigate environmental impacts. e.g. purchasing of carbon credits • express purchasing power through the selection of suppliers with improved environmental performance. e.g. purchasing renewable energy and materials with lower embedded carbon • eliminate the use of hazardous and toxic materials increasing the reusability/recyclability of wastes/products.

Evidence Guide	
Critical aspects of Competence	<p>Must demonstrate knowledge and skills competence to:</p> <ul style="list-style-type: none"> • monitor and investigate current resource usage • develop plans to improve sustainability • Implement environmental improvements. • environmental performance is routinely monitored and investigated • areas for improvements are followed through and the implemented changes are in turn monitored and investigated.

Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • how to access and use relevant environmental and resource efficiency systems, tools and procedures • understanding of best practice approaches relevant to own area of responsibility • strategies to maximize opportunities and minimize impacts relevant to own work area • relevant environmental and resource efficiency issues specific to industry practices • methods for measuring and calculating resource usage
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • using relevant environmental and resource efficiency systems, tools and procedures • applying quality assurance systems relevant to own work area • applying relevant supply chain procedures • measurement and calculation techniques • communication/consultation skills to ensure information is supplied to the work group • Reading and writing is required to comprehend documentation and interpret environmental and energy efficiency requirements and to document and maintain records • Numeracy is required to interpret numeric workplace information, readings and measurements, handle data as required and complete numeric components of workplace forms/reports.
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit	Plan and Coordinate Maintenance
Unit Code	IND BKG4 21 0613
Unit Descriptor	This Unit Title covers the skills and knowledge required to plan and coordinate maintenance of production equipment.

Element s	Performance Criteria
1. Identify maintenance requirements	<p>1.1. The approach to maintaining production equipment is identified.</p> <p>1.2. Advice on equipment maintenance requirements is identified and assessed.</p> <p>1.3. Special maintenance requirements are assessed and prioritized.</p>
2. Plan maintenance	<p>2.1. Resources required to carry out maintenance are identified and secured.</p> <p>2.2. A maintenance schedule is developed to provide reliable equipment performance with minimal disruption to production.</p> <p>2.3. The maintenance schedule takes account of production schedules, equipment capability, special maintenance requirements and efficient resource utilization and workplace environmental guidelines.</p> <p>2.4. The maintenance schedule is recorded in the appropriate workplace format.</p> <p>2.5. Responsibilities for implementing the <i>maintenance schedule</i> are defined and communicated.</p> <p>2.6. Work areas and personnel affected by the maintenance program are consulted and advised of maintenance progress.</p>
3. Monitor implementation of the maintenance schedule	<p>3.1. Progress of maintenance is monitored to identify variance to schedule.</p> <p>3.2. Unplanned events that could affect the schedule are identified, assessed and addressed.</p> <p>3.3. Potential failure to meet maintenance deadlines are identified and communicated to relevant personnel in a timely manner.</p>
4. Contribute to the improvement of equipment reliability	<p>4.1. Equipment performance information is reviewed to identify patterns or trends.</p> <p>4.2. Factors that affect equipment reliability are identified.</p> <p>4.3. Production and maintenance personnel are consulted to identify opportunities to improve equipment reliability.</p>

	<p>4.4. Action is taken to improve equipment reliability.</p> <p>4.5. The maintenance schedule and related programs and procedures are reviewed to reflect improvements.</p>
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Variables	Range
Maintenance scheduling and work practices	are consistent with company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements and takes account of OHS and environmental impact of scheduling arrangements
Sources of information	<p>May include:</p> <ul style="list-style-type: none"> • manufacturers' specifications • equipment capability data • condition monitoring data • equipment operation/performance reports and log sheets • workplace environmental guidelines
Scheduling	the use of planning and systems control software, such as SAP and MRPII
Maintenance schedules	<p>May include:</p> <ul style="list-style-type: none"> • lubrication schedules • service schedules and major cleaning where cleaning requires equipment dismantling or strip down
Coordination	the management of contracts with external maintenance service providers and/or internal maintenance personnel

Evidence Guide	
Critical aspects of competence	<p>Demonstrate skills and knowledge of:</p> <ul style="list-style-type: none"> • determine maintenance requirements for work area • establish and document maintenance schedule • coordinate implementation of maintenance • ensure maintenance schedule is communicated and reported to all appropriate personnel • manage unplanned maintenance issues • assess equipment reliability and contribute to improving outcomes
Underpinning Knowledge	<p>Demonstrate Knowledge of:</p> <ul style="list-style-type: none"> • basic maintenance approaches and differences between reactive, preventative and proactive maintenance models, such as reliability centered maintenance (RCM) and total productive maintenance (TCM) • company systems, processes and responsibilities for collecting equipment condition information, analysing information and carrying out required servicing and maintenance tasks • sources of data on equipment performance and maintenance requirements, related recording systems and data analysis tools

	<ul style="list-style-type: none"> • the requirements of the maintenance scheduling process, including the production process to identify the impact of scheduling on production in order to oversee maintenance activities and establish maintenance priorities • links to related activities, such as purchasing and contract management • factors that influence the reliability of equipment, including equipment capability, equipment/process design, and operating conditions and practices • methods used to measure effectiveness of maintenance including measures of plant availability, cost of maintenance, downtime and alternate resource utilization • OHS, environmental and food safety requirements and responsibilities associated with maintenance activities • relevant personnel and departments to be consulted/notified of maintenance schedule and related amendments, including the information relevant to each group/person • awareness of conditions that can affect achievement of the maintenance schedule, including conditions that are unusual or unplanned, and related options for response to equipment breakdowns/emergencies • communication skills to consult and communicate with relevant personnel • recording systems and requirements, including relevant software packages • process improvement procedures • maintenance service supplier capacity
Underpinning Skills	<p>Demonstrate skills:</p> <ul style="list-style-type: none"> • describe the company's approach to equipment maintenance • collect information on equipment maintenance requirements to identify routine lubrication and servicing requirements as appropriate • analyze equipment maintenance data, such as the use of data analysis techniques to plot and interpret trends and patterns in equipment performance • identify components of the maintenance program and related responsibilities for implementation, such as equipment monitoring, lubrication schedules, routine servicing and cleaning schedules and breakdown or emergency response (implementation is typically shared between production and maintenance personnel and/or external service providers) • identify and confirm resource requirements to meet maintenance requirements, including the nature of maintenance tasks involved to identify the required maintenance equipment, materials/consumables and competences and where required, identify and liaise with external maintenance service providers

	<ul style="list-style-type: none"> • confirm that personnel with the required competencies are available to conduct maintenance activities, such as reporting and/or developing competencies required to implement the maintenance schedule, and where required, manage contracts with maintenance providers • develop a schedule for equipment maintenance to support reliable equipment performance with minimal disruption to production, including consulting relevant personnel to confirm schedule feasibility, and notifying relevant personnel of any possibility that maintenance cannot be completed within scheduled timeframe • record and communicate the schedule in appropriate formats, such as use of software, and communicating information to meet workplace and audience requirements • ensure that operating procedures are available and include information on Occupational Health and Safety (OHS), environmental management and food safety requirements and responsibilities • monitor maintenance activities against the schedule to identify variances and take appropriate corrective action, such as assessing the consequences of any adjustments to the schedule, and where required, monitor completion of maintenance within maintenance budget constraints • respond to unplanned events, such as major equipment breakdowns to minimize disruption and optimize efficiency • communicate maintenance requirements and report outcomes, including ensuring effective communication between production and maintenance personnel to enhance equipment reliability and identify improvement opportunities • use planning and systems control software • use communication skills to interpret and complete work information to support operations of work team or area • demonstrate and support cooperative work practices within a culturally diverse workforce
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competency may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Plan and Organize Work
Unit Code	IND BKG4 22 0613
Unit Descriptor	This unit covers the knowledge, skills and attitude required in planning and organizing work activities in a production application. It may be applied to a small independent operation or to a section of a large organization.

Elements	Performance Criteria
1. Set objectives	<p>1.1 Objectives are planned consistent with and linked to work activities in accordance with organizational aims.</p> <p>1.2 Objectives are stated as measurable targets with clear time frames.</p> <p>1.3 Support and commitment of team members are reflected in the objectives.</p> <p>1.4 Realistic and attainable objectives are identified.</p>
2. Plan and schedule work activities	<p>2.1 Tasks/work activities to be completed are identified and prioritized as directed.</p> <p>2.2 Tasks/work activities are broken down into steps in accordance with set time frames and achievable components.</p> <p>2.3 Task/work activities are assigned to appropriate team or individuals in accordance with agreed functions.</p> <p>2.4 Resources are allocated as per requirements of the activity.</p> <p>2.5 Schedule of work activities is coordinated with personnel concerned.</p>
3. Implement work plans	<p>3.1 Work methods and practices are identified in consultation with personnel concerned.</p> <p>3.2 Work plans are implemented in accordance with set time frames, resources and standards.</p>
4. Monitor work activities	<p>4.1 Work activities are monitored and compared with set objectives.</p> <p>4.2 Work performance is monitored.</p> <p>4.3 Deviations from work activities are reported and recommendations are coordinated with appropriate personnel and in accordance with set standards.</p> <p>4.4 Reporting requirements are complied with in accordance with recommended format.</p> <p>4.5 Timeliness of report is observed.</p> <p>4.6 Files are established and maintained in accordance with standard operating procedures.</p>

<p>5. Review and evaluate work plans and activities</p>	<p>5.1 Work plans, strategies and implementation are reviewed based on accurate, relevant and current information.</p> <p>5.2 Review is done based on comprehensive consultation with appropriate personnel on outcomes of work plans and reliable feedback.</p> <p>5.3 Results of review are provided to concerned parties and formed as the basis for adjustments/simplifications to be made to policies, processes and activities.</p> <p>5.4 Performance appraisal is conducted in accordance with organization rules and regulations.</p> <p>5.5 Performance appraisal report is prepared and documented regularly as per organization requirements.</p> <p>5.6 Recommendations are prepared and presented to appropriate personnel/authorities.</p> <p>5.7 Feedback mechanisms are implemented in line with organization policies.</p>
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Variable	Range
Objectives	<ul style="list-style-type: none"> • Specific • General
Resources	<ul style="list-style-type: none"> • Personnel • Equipment and technology • Services • Supplies and materials • Sources for accessing specialist advice • Budget
Schedule of work activities	<ul style="list-style-type: none"> • Daily • Work-based • Contractual • Regular
Work methods and practices	<ul style="list-style-type: none"> • Legislated regulations and codes of practice • Industry regulations and codes of practice • Occupational health and safety practices
Work plans	<ul style="list-style-type: none"> • Daily work plans • Project plans • Program plans • Resource plans • Skills development plans • Management strategies and objectives
Standards	<ul style="list-style-type: none"> • Performance targets • Performance management and evaluation systems • Occupational standards • Employment contracts • Client contracts

	<ul style="list-style-type: none"> • Discipline procedures • Workplace assessment guidelines • Internal quality assurance • Internal and external accountability and auditing requirements • Training Regulation Standards • Safety Standards
Appropriate personnel/ authorities	<ul style="list-style-type: none"> • Appropriate personnel include: • Management • Line Staff
Feedback mechanisms	<ul style="list-style-type: none"> • Feedback mechanisms include: • Verbal feedback • Informal feedback • Formal feedback • Questionnaire • Survey • Group discussion

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • set objectives • plan and schedule work activities • implement work plans • monitor work activities • review and evaluate work plans and activities
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • organization's strategic plan, policies rules and regulations, laws and objectives for work unit activities and priorities • organizations policies, strategic plans, guidelines related to the role of the work unit • team work and consultation strategies
Underpinning Skills	<p>Demonstrates skill of:</p> <ul style="list-style-type: none"> • planning • leading • organizing • coordinating • communication skills • inter-and intra-person/motivation skills • presentation skills
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level IV	
Unit Title	Migrate to New Technology
Unit Code	IND BKG4 23 0613
Unit Descriptor	This unit defines the competence required to apply skills and knowledge in using new or upgraded technology. The rationale behind this unit emphasizes the importance of constantly reviewing work processes, skills and techniques in order to ensure that the quality of the entire business process is maintained at the highest level possible through the appropriate application of new technology. To this end, the person is typically engaged in on-going review and research in order to discover and apply new technology or techniques to improve aspects of the organization's activities.

Elements	Performance Criteria
1. Apply existing knowledge and techniques to technology and transfer	<p>1.1 Situations are identified where existing knowledge can be used as the basis for developing new skills.</p> <p>1.2 New or upgraded technology skills are acquired and used to enhance learning.</p> <p>1.3 New or upgraded equipment are identified, classified and used where appropriate, for the benefit of the organization.</p>
2. Apply functions of technology to assist in solving organizational problems	<p>2.1 Testing of new or upgraded equipment is conducted according to the specification manual.</p> <p>2.2 Features of new or upgraded equipment are applied within the organization</p> <p>2.3 Features and functions of new or upgraded equipment are used for solving organizational problems</p> <p>2.4 Sources of information relating to new or upgraded equipment are accessed and used</p>
3. Evaluate new or upgraded technology performance	<p>3.1 New or upgraded equipment is evaluated for performance, usability and against OHS standards.</p> <p>3.2 Environmental considerations are determined from new or upgraded equipment.</p> <p>3.3 Feedback is sought from users where appropriate.</p>

Variables	Range
Environmental Considerations	May include but is not limited to recycling, safe disposal of packaging (e.g. cardboard, polystyrene, paper, plastic) and correct disposal of waste materials by an authorized body
Feedback	May include surveys, questionnaires, interviews and meetings.

Evidence Guide	
Critical Aspects of Competence	Competence must confirm the ability to transfer the application of existing skills and knowledge to new technology
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> • Broad awareness of current technology trends and directions in the industry (e.g. systems/procedures, services, new developments, new protocols) • Knowledge of vendor product directions • Ability to locate appropriate sources of information regarding metal manufacturing and new technologies • Current industry products/services, procedures and techniques with knowledge of general features • Information gathering techniques
Underpinning Skills	Demonstrate skills of: <ul style="list-style-type: none"> • Research skills for identifying broad features of new technologies • Ability to assist in the decision making process • Literacy skills in regard to interpretation of technical manuals • Ability to solve known problems in a variety of situations and locations • Evaluate and apply new technology to assist in solving organizational problems • General analytical skills in relation to known problems
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Establish Quality Standards
Unit Code	IND BKG4 24 0613
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to establish quality specifications for work outcomes and work performance. It includes monitoring and participation in maintaining and improving quality, identifying critical control points in the production of quality output and assisting in planning and implementing of quality assurance procedures.

Elements	Performance Criteria
1. Establish quality specifications for product	<p>1.1 Market specifications are sourced and legislated requirements identified.</p> <p>1.2 Quality specifications are developed and agreed upon</p> <p>1.3 Quality specifications are documented and introduced to organization staff / personnel in accordance with the organization policy.</p> <p>1.4 Quality specifications are updated when necessary.</p>
2. Identify hazards and critical control points	<p>2.1. Critical control points impacting on quality are identified.</p> <p>2.2. Degree of risk for each hazard is determined.</p> <p>2.3. Necessary documentation is accomplished in accordance with organization quality procedures</p>
3. Assist in planning of quality assurance procedures	<p>3.1 Procedures for each identified control point are developed to ensure optimum quality.</p> <p>3.2 Hazards and risks are minimized through application of appropriate controls.</p> <p>3.3 Processes are developed to monitor the effectiveness of quality assurance procedures.</p>
4. Implement quality assurance procedures	<p>4.1 Responsibilities for carrying out procedures are allocated to staff and contractors.</p> <p>4.2 Instructions are prepared in accordance with the enterprise's quality assurance program.</p> <p>4.3 Staff and contractors are given induction training on the quality assurance policy.</p> <p>4.4 Staff and contractors are given in-service training relevant to their allocated safety procedures.</p>
5. Monitor quality of work outcome	<p>5.1 Quality requirements are identified.</p> <p>5.2 Inputs are inspected to confirm capability to meet quality requirements.</p> <p>5.3 Work is conducted to produce required outcomes.</p>

	<p>5.4 Work processes are monitored to confirm quality of output and/or service.</p> <p>5.5 Processes are adjusted to maintain outputs within specification.</p>
6. Participate in maintaining and improving quality at work	<p>6.1 Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements.</p> <p>6.2 Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements.</p> <p>6.3 Corrective action is taken within level of responsibility, to maintain quality standards.</p> <p>6.4 Quality issues are raised with designated personnel.</p>
7. Report problems that affect quality	<p>7.1 Potential or existing quality problems are recognized.</p> <p>7.2 Instances of variation in quality are identified from specifications or work instructions.</p> <p>7.3 Variation and potential problems are reported to supervisor/manager according to enterprise guidelines.</p>

Variable	Range
Sourced	<ul style="list-style-type: none"> • End-users • Customers or stakeholders
Legislated requirements	<ul style="list-style-type: none"> • Verification of product quality as part of consumer legislation or specific legislation related to product content or composition.
Safety procedures.	<ul style="list-style-type: none"> • Use of tools and equipment for fabrication/production/manufacturing works • Workplace environment and handling of material safety, • Following occupational health and safety procedures designated for the task • Respect the policies, regulations, legislations, rule and procedures for manufacturing/production/fabrication works

Evidence Guide	
Critical Aspect of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Monitor quality of work • Establish quality specifications for product • Participate in maintaining and improving quality at work • Identify hazards and critical control points in the production of quality product • Assist in planning of quality assurance procedures • Report problems that affect quality • Implement quality assurance procedures
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • work and product quality specifications • quality policies and procedures

	<ul style="list-style-type: none"> • improving quality at work • hazards and critical points of operation • obtaining and using information • applying federal and regional legislation within day-today work activities • accessing and using management systems to keep and maintain accurate records • requirements for correct preparation and operation • technical writing
Underpinning Skills	<p>Demonstrates skills in:</p> <ul style="list-style-type: none"> • monitoring quality of work • establishing quality specifications for product • participating in maintaining and improving quality at work • identifying hazards and critical control points in the production of quality product • assisting in planning of quality assurance procedures • reporting problems that affect quality • implementing quality assurance procedures
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Develop Individuals and Team
Unit Code	IND BKG4 25 0613
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to determine individual and team development needs and facilitate the development of the workgroup.

Elements	Performance Criteria
1. Provide team leadership	<p>1.1 Learning and development needs are systematically identified and implemented in line with organizational requirements.</p> <p>1.2 Learning plan to meet individual and group training and developmental needs is collaboratively developed and implemented.</p> <p>1.3 Individuals are encouraged to self-evaluate performance and identify areas for improvement.</p> <p>1.4 Feedback on performance of team members is collected from relevant sources and compared with established team learning process.</p>
2. Foster individual and organizational growth	<p>2.1 Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of Competence standards.</p> <p>2.2 Learning delivery methods are made appropriate to the learning goals, the learning style of participants and availability of equipment and resources.</p> <p>2.3 Workplace learning opportunities and coaching/ mentoring assistance are provided to facilitate individual and team achievement of competencies.</p> <p>2.4 Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements.</p>
3. Monitor and evaluate workplace learning	<p>3.1 Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements.</p> <p>3.2 Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support.</p> <p>3.3 Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning.</p> <p>3.4 Records and reports of competence are maintained within organizational requirement.</p>
4. Develop team commitment and cooperation	<p>4.1 Open communication processes to obtain and share information is used by team.</p>

	<p>4.2 Decisions are reached by the team in accordance with its agreed roles and responsibilities.</p> <p>4.3 Mutual concern and camaraderie are developed in the team.</p>
5. Facilitate accomplishment of organizational goals	<p>5.1 Team members are actively participated in team activities and communication processes.</p> <p>5.2 Individual and joint responsibility is developed by teams' members for their actions.</p> <p>5.3 Collaborative efforts are sustained to attain organizational goals.</p>

Variable	Range
Learning and development needs	<ul style="list-style-type: none"> • Coaching, monitoring and/or supervision • Formal/informal learning program • Internal/external training provision • Work experience/exchange/opportunities • Personal study • Career planning/development • Performance evaluation • Workplace skills assessment • Recognition of prior learning
Organizational requirements	<ul style="list-style-type: none"> • Quality assurance and/or procedures manuals • Goals, objectives, plans, systems and processes • Legal and organizational policy/guidelines and requirements • Safety policies, procedures and programs • Confidentiality and security requirements • Business and performance plans • Ethical standards • Quality and continuous improvement processes and standards
Feedback on performance	<ul style="list-style-type: none"> • Formal/informal performance evaluation • Obtaining feedback from supervisors and colleagues • Obtaining feedback from clients • Personal and reflective behavior strategies • Routine and organizational methods for monitoring service delivery
Learning delivery methods	<ul style="list-style-type: none"> • On the job coaching or monitoring • Problem solving • Presentation/demonstration • Formal course participation • Work experience and involvement in professional networks • Conference and seminar attendance

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • identify and implement learning opportunities for others • give and receive feedback constructively

	<ul style="list-style-type: none"> • facilitate participation of individuals in the work of the team • negotiate plans to improve the effectiveness of learning • prepare learning plans to match skill needs • access and designate learning opportunities
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • coaching and monitoring principles • understanding how to work effectively with team members who have diverse work styles, aspirations, cultures and perspective • understanding how to facilitate team development and improvement • understanding methods and techniques to obtain and interpreting feedback • understanding methods for identifying and prioritizing personal development opportunities and options • knowledge of career paths and competence standards in the industry
Underpinning Skills	<p>Demonstrates skills in:</p> <ul style="list-style-type: none"> • reading and understanding a variety of texts, preparing general information and documents according to target audience; spell with accuracy; use grammar and punctuation effective relationships and conflict management • communication including receiving feedback and reporting, maintaining effective relationships and conflict management • planning skills to organize required resources and equipment to meet learning needs • coaching and mentoring skills to provide support to colleagues • reporting to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes • facilitation to conduct small group training sessions • relating to people from a range of social, cultural, physical and mental backgrounds
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

Occupational Standard: Baking Level IV	
Unit Title	Utilize Specialized Communication Skills
Unit Code	IND BKG4 26 0613
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use specialized communication skills to meet specific needs of internal and external clients, conduct interviews, facilitate group discussions, and contribute to the development of communication strategies.

Elements	Performance Criteria
1. Meet common and specific communication needs of clients and colleagues	<p>1.1 Specific communication needs of clients and colleagues are identified and met.</p> <p>1.2 Different approaches are used to meet communication needs of clients and colleagues.</p> <p>1.3 Conflict is addressed promptly and in a timely way and in a manner which does not compromise the standing of the organization.</p>
2. Contribute to the development of communication strategies	<p>2.1 Strategies for internal and external dissemination of information are developed, promoted, implemented and reviewed as required.</p> <p>2.2 Channels of communication are established and reviewed regularly.</p> <p>2.3 Coaching in effective communication is provided.</p> <p>2.4 Work related network and relationship are maintained as necessary.</p> <p>2.5 Negotiation and conflict resolution strategies are used where required.</p> <p>2.6 Communication with clients and colleagues is appropriate to individual needs and organizational objectives.</p>
3. Represent the organization	<p>3.1 When participating in internal or external fora, presentation is relevant, appropriately researched and presented in a manner to promote the organization.</p> <p>3.2 Presentation is made clear and sequential and delivered within a predetermined time.</p> <p>3.3 Appropriate media is utilized to enhance presentation.</p> <p>3.4 Differences in views are respected.</p> <p>3.5 Written communication is made consistent with organizational standards.</p> <p>3.6 Inquiries are responded in a manner consistent with organizational standard.</p>

4. Facilitate group discussion	<p>4.1 Mechanisms which enhance effective group interaction are defined and implemented.</p> <p>4.2 Strategies which encourage all group members to participate are used routinely.</p> <p>4.3 Objectives and agenda are routinely set and followed for meetings and discussions.</p> <p>4.4 Relevant information is provided to group to facilitate outcomes.</p> <p>4.5 Evaluation of group communication strategies is undertaken to promote participation of all parties.</p> <p>4.6 Specific communication needs of individuals are identified and addressed.</p>
5. Conduct interview	<p>5.1 A range of appropriate communication strategies are employed in interview situations.</p> <p>5.2 Different types of interview are conducted in accordance with the organizational procedures.</p> <p>5.3 Records of interviews are made and maintained in accordance with organizational procedures.</p> <p>5.4 Effective questioning, listening and nonverbal communication techniques are used to ensure that required message is communicated.</p>

Variable	Range
Strategies	<ul style="list-style-type: none"> • Recognizing own limitations • Utilizing techniques and aids • Providing written drafts • Verbal and non-verbal communication
Effective group interaction	<ul style="list-style-type: none"> • Identifying and evaluating what is occurring within an interaction in a non-judgmental way • Using active listening • Making decision about appropriate words, behavior • Putting together response which is culturally appropriate • Expressing an individual perspective • Expressing own philosophy, ideology and background and exploring impact with relevance to communication
Interview situations	<ul style="list-style-type: none"> • Establish rapport • obtain facts and information • Facilitate resolution of issues • Develop action plans and Diffuse potentially difficult situation
Types of Interview	<ul style="list-style-type: none"> • Related to staff issues • Routine • Confidential • Evidential • Non-disclosure and Disclosure

Evidence Guide	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> • Demonstrate effective communication skills with clients and work colleagues accessing service • Adopt relevant communication techniques and strategies to meet client particular needs and difficulties
Underpinning Knowledge and Values	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • communication process • dynamics of groups and different styles of group leadership • communication skills relevant to client groups
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • full range of communication techniques including: <ul style="list-style-type: none"> ➤ active listening ➤ feedback ➤ interpretation ➤ role boundaries setting ➤ negotiation ➤ establishing empathy ➤ communication strategies • communication required to fulfill job roles as specified by the organization
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level IV	
Unit Title	Manage and Maintain Small/Medium Business Operations
Unit Code	IND BKG4 27 0613
Unit Descriptor	This unit covers the operation of day-to-day business activities in a micro or small business. The strategies involve developing, monitoring and managing work activities and financial information, developing effective work habits, and adjusting work schedules as needed.

Elements	Performance Criteria
1. Identify daily work requirements	<p>1.1 Work requirements are identified for a given time period by taking into consideration resources and constraints.</p> <p>1.2 Work activities are prioritized based on business needs, requirements and deadlines.</p> <p>1.3 If appropriate, work is allocated to relevant staff or contractors to optimize efficiency.</p>
2. Monitor and manage work	<p>2.1 People, resources and/or equipment are coordinated to provide optimum results.</p> <p>2.2 Staff, clients and/or contractors are communicated within a clear and regular manner, to monitor work in relation to business goals or timelines.</p> <p>2.3 Problem solving techniques are applied to work situations to overcome difficulties and achieve positive outcomes.</p>
3. Develop effective work habits	<p>3.1 Work and personal priorities are identified and a balance is achieved between competing priorities using appropriate time management strategies.</p> <p>3.2 Input from internal and external sources is sought and used to develop and refine new ideas and approaches.</p> <p>3.3 Business or inquiries is/are responded to promptly and effectively.</p> <p>3.4 Information is presented in a format appropriate to the industry and audience.</p>
4. Interpret financial information	<p>4.1 Relevant documents and reports are identified.</p> <p>4.2 Documents and reports are read and understood and any implications discussed with appropriate persons.</p> <p>4.3 Data and numerical calculations are analyzed, checked, evaluated, organized and reconciled.</p> <p>4.4 Daily financial records and cash flow are maintained correctly and in accordance with legal and accounting requirements.</p> <p>4.5 Invoices and payments are prepared and distributed in a timely manner and in accordance with legal requirements.</p> <p>4.6 Outstanding accounts are collected or followed-up on.</p>

5. Evaluate work performance	<p>5.1 Opportunities for improvements are monitored according to business demands.</p> <p>5.2 Work schedules are adjusted to incorporate necessary modifications to existing work and routines or changing needs and requirements.</p> <p>5.3 Proposed changes are clearly communicated and recorded to aid in future planning and evaluation.</p> <p>5.4 Relevant codes of practice are used to guide an ethical approach to workplace practices and decisions.</p>
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Variable	Range
Resources	may include: <ul style="list-style-type: none"> • staff • money • time • equipment • space
Business goals	may include: <ul style="list-style-type: none"> • sales targets • budgetary targets • team and individual goals • production targets • reporting deadlines
Problem solving techniques	may include: <ul style="list-style-type: none"> • gaining additional research and information to make better informed decisions • looking for patterns • considering related problems or those from the past and how they were handled • eliminating possibilities • identifying and attempting sub-tasks • collaborating and asking for advice or help from additional sources
Time management strategies	may include: <ul style="list-style-type: none"> • prioritizing and anticipating • short term and long term planning and scheduling • creating a positive and organized work environment • clear timelines and goal setting that is regularly reviewed and adjusted as necessary • breaking large tasks into smaller tasks • getting additional support if identified and necessary
Internal and external sources	may include: <ul style="list-style-type: none"> • staff and colleagues • management, supervisors, advisors or head office • relevant professionals such as lawyers, accountants, management consultants • professional associations

Evidence Guide	
Critical Aspects of Competence	<p>A person must be able to:</p> <ul style="list-style-type: none"> • identify daily work requirements and allocate work appropriately • interpret financial documents in accordance with legal requirements
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> • Federal and Local Government legislative requirements affecting business operations, especially in regard to Occupational Health and Safety (OHS), equal employment opportunity, industrial relations and anti-discrimination • technical or specialist skills relevant to the business operation • relevant industry code of practice • planning techniques to establish realistic timelines and priorities • identification of relevant performance measures • quality assurance principles and methods • relevant marketing, management, sales and financial concepts • methods for monitoring performance and implementing improvements • structured approaches to problem solving, idea management and time management
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> • interpret legal requirements, company policies and procedures and immediate, day-to-day demands • communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback • numeracy skills for performance information, setting targets and interpreting financial documents and reports • technical and analytical skills to interpret business document, reports and financial statements and projections • ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities • problem solving skills to develop contingency plans • using computers and software packages to record and manage data and to produce reports • evaluation skills for assessing work and outcomes • observation skills for identifying appropriate people, resources and to monitor work
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Baking Level IV	
Unit Title	Apply Problem Solving Techniques and Tools
Unit Code	IND BKG4 28 0613
Unit Descriptor	This unit of competency covers the knowledge, skills and attitude required to apply scientific problem solving techniques and tools to enhance quality, productivity and other kaizen elements on continual basis.

Elements	Performance criteria
1. Identify and select theme/problem.	<p>1.1 Safety requirements are followed in accordance with safety plans and procedures.</p> <p>1.2 All possible problems related to the process /Kaizen elements are listed using statistical tools and techniques.</p> <p>1.3 All possible problems related to kaizen elements are identified and listed on Visual Management Board/Kaizen Board.</p> <p>1.4 Problems are classified based on obviousness of cause and action.</p> <p>1.5 Critical factors like the number of customers affected, Potentials for bottlenecks, and number of complaints etc... is selected.</p> <p>1.6 Problems related to priorities of Kaizen Elements are given due emphasis and selected.</p>
2. Grasp current status and set goal.	<p>2.1 The extent of the problem is defined.</p> <p>2.2 Appropriate and achievable goal is set.</p>
3. Establish activity plan.	<p>3.1 The problem is confirmed.</p> <p>3.2 High priority problem is selected.</p> <p>3.3 The extent of the problem is defined.</p> <p>3.4 Activity plan is established as per 5W1H.</p>
4. Analyze causes of a problem.	<p>4.1 All possible causes of a problem are listed.</p> <p>4.2 Cause relationships are analyzed using 4M1E.</p> <p>4.3 Causes of the problems are identified.</p> <p>4.4 Root causes are selected.</p> <p>4.5 The root cause which is most directly related to the problem is selected.</p> <p>4.6 All possible ways are listed using creative idea generation to eliminate the most critical root cause.</p> <p>4.7 The suggested solutions are carefully tested and evaluated for potential complications.</p>

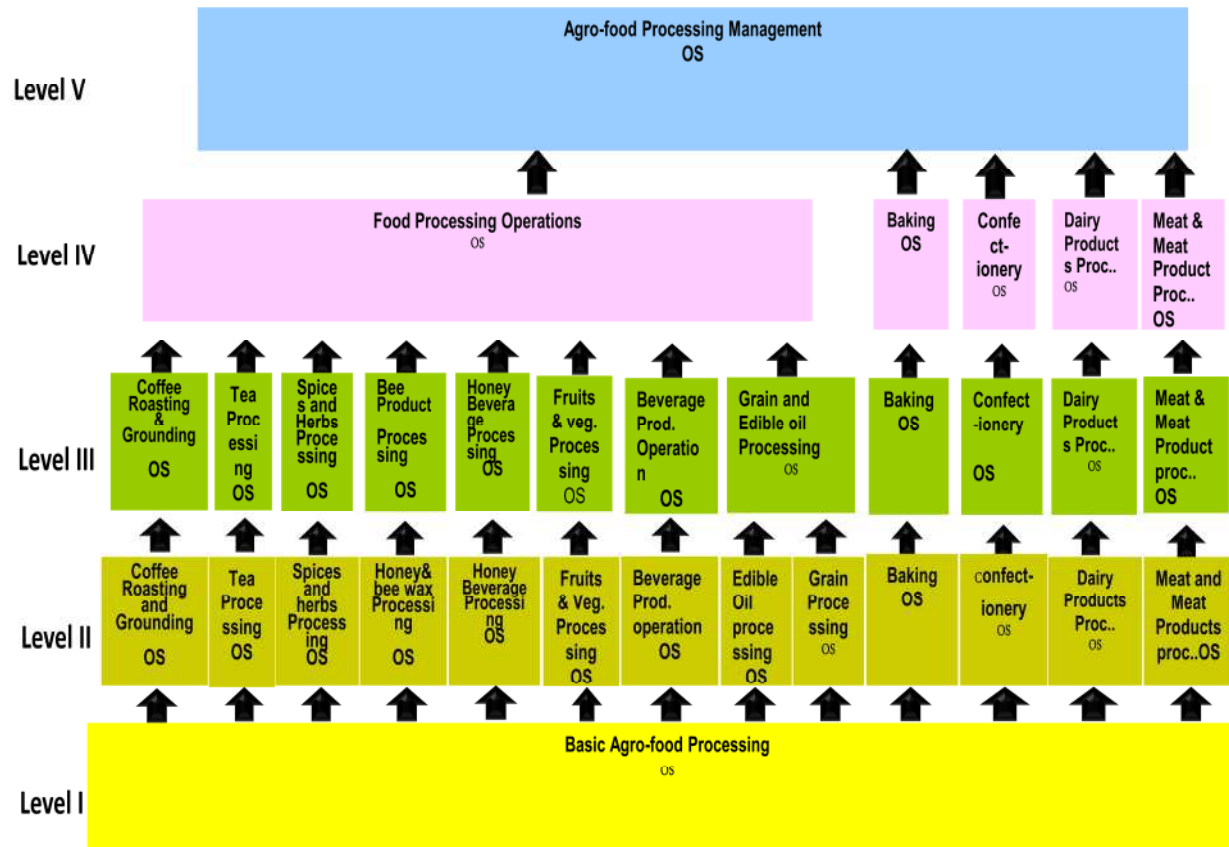
	4.8 Detailed summaries of the action plan are prepared to implement the suggested solution.
5. Examine countermeasures and their implementation.	5.1 Action plan is implemented by medium KPT members. 5.2 Implementation is monitored according to the agreed procedure and activities are checked with preset plan.
6. Assess effectiveness of the solution.	6.1 Tangible and intangible results are identified. 6.2 The results are verified over time. 6.3 Tangible results are compared with targets using various types of diagram .
7. Standardize and sustain operation.	7.1 If the goal is achieved, the new procedures are standardized and made part of daily activities. 7.2 All employees are trained on the new Standard Operating Procedures (SOPs) . 7.3 SOP is verified and followed by all employees. 7.4 The next problem is selected to be tackled by the team.

Variables	Range
Safety requirements	may include but not limited to: <ul style="list-style-type: none"> • OHS requirements include legislation, material safety, managements system, hazardous substances and dangerous goods code and local safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislations, relevant health regulation, manual handling procedure and organization insurance requirements
Statistical tools and techniques	may include but not limited to: <ul style="list-style-type: none"> • 7 QC tools may include: <ul style="list-style-type: none"> ➤ Stratification ➤ Pareto Diagram ➤ Cause and Effect Diagram ➤ Check Sheet ➤ Control Chart/Graph ➤ Histogram ➤ Scatter Diagram • QC techniques may include: <ul style="list-style-type: none"> ➤ Brain storming ➤ Why analysis ➤ What if analysis ➤ 5W1H
Kaizen Elements	may include but not limited to: <ul style="list-style-type: none"> • Quality • Cost • Productivity • Delivery • Safety

	<ul style="list-style-type: none"> • Moral • Environment • Gender equality
5W1H	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • Who: person in charge • Why: objective • What: item to be implemented • Where: location • When: time frame • How: method
4M1E	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • Man • Machine • Method • Material and • Environment
Creative idea generation	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • Brainstorming • Exploring and examining ideas in varied ways • Elaborating and extrapolating • Conceptualizing
Medium KPT	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • 5S • 4M (machine, method, material and man) • 4P (Policy, procedures, People and Plant) • PDCA cycle • Basics of IE tools and techniques
Tangible and intangible results	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • Tangible result may include: <ul style="list-style-type: none"> ➤ Quantifiable data • Intangible result may include: <ul style="list-style-type: none"> ➤ Qualitative data
Various types of diagram	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • Line graph • Bar graph • Pie-chart • Scatter diagram • Affinity diagram
Standard Operating Procedures (SOPs)	<p>may include but not limited to:</p> <ul style="list-style-type: none"> • The customer demand • The most efficient work routine (steps) • The cycle times required to complete work elements • All process quality checks required to minimize defects/errors • The exact amount of work in process required

Evidence Guide	
Critical Aspects of Assessment	<p>Demonstrates skills and knowledge competencies to:</p> <ul style="list-style-type: none"> • Apply all relevant procedures and regulatory requirements to ensure quality and productivity of an organization. • Detect non-conforming products/services in the work area • Apply effective problem solving approaches/strategies. • Implement and monitor improved practices and procedures • Apply statistical quality control tools and techniques.
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> • QC story/PDCA cycle/ • QC story/ Problem solving steps • QCC techniques • 7 QC tools • Basic IE tools and techniques. • SOP • Quality requirements associated with the individual's job function and/or work area • Workplace procedures associated with the candidate's regular technical duties • Relevant health, safety and environment requirements • organizational structure of the enterprise • Lines of communication • Methods of making/recommending improvements. • Reporting procedures
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> • Apply problem solving techniques and tools • Apply statistical analysis tools • Apply Visual Management Board/Kaizen Board. • Detect non-conforming products or services in the work area • Document and report information about quality, productivity and other kaizen elements. • Contribute effectively within a team to recognize and recommend improvements in quality, productivity and other kaizen elements. • Implement and monitor improved practices and procedures. • Organize and prioritize activities and items. • Read and interpret documents describing procedures • Record activities and results against templates and other prescribed formats.
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> • Interview / Written Test • Observation / Demonstration with Oral Questioning
Context of Assessment	<p>Competence may be assessed in the work place or in a simulated work place setting.</p>

Sector: Industry
Sub-sector: Agro-food Processing



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This occupational standard was developed on the date of June 25, 2013 at Debre Zeyit Ethiopian Management Institute.

COMMENT TEMPLATE

The Federal TVET Agency values your feedback of the document.
If you would like someone to personally contact you, please provide the following information:
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