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Qualification Specification
Highfield Level 4 International
Award in Food Safety
Management for Manufacturing

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Highfield Level 4 International Award in Food Safety Management for Manufacturing

Introduction

This specification is designed to outline all you need to know to offer this qualification at your centre. If you have any further questions, please contact your centre manager.

Key facts

Assessment method:	Multiple-choice examination
Guided learning hours (GLH):	40

Qualification overview and objective

The qualification is intended for Product managers/Auditors/Trainers/Quality Assurance staff, whose job requires them to have responsibility for food safety. Learners are likely to have management responsibilities for an operational team.

This qualification covers the subject of food safety at a suitable depth (management level) to ensure learners have a thorough knowledge of hazards and controls; its focus is on the importance of developing, implementing and monitoring food safety procedures.

Entry requirements

It is advised that learners already hold the Level 3 Award in Food Safety in Manufacturing, or equivalent. It is also advised that learners have a minimum of Level 2 in literacy and numeracy, or equivalent.

Guidance on delivery

The recommended guided learning hours for this qualification is 40 hours. Guided learning hours is the time an average learner is taught by means of lectures; tutorials; supervised study; and blended learning. The delivery of this programme may be adjusted in accordance with learners' needs and/or local circumstance.

Guidance on assessment

This qualification is assessed by a multiple-choice examination, containing **60** questions. The exam must be completed in **2 hours**. Successful learners will have to demonstrate knowledge across the unit content and correctly answer **36** questions or more to achieve a pass; **42** questions to achieve a merit and **48** questions to achieve a distinction.

Completed examination papers should be returned to Highfield for marking. Results will then be provided to the centre.

Recognition of prior learning (RPL)

Centres may apply to use recognition of prior learning or prior achievement to reduce the amount of time spent in preparing a learner for assessment. For further information on how centres can apply to use RPL as described above, please refer to the Recognition of Prior Learning (RPL) Policy in the members' area of the Highfield website. This policy should be read in conjunction with this specification and all other relevant Highfield documentation.

Tutor requirements

Highfield recommends that nominated tutors for this qualification have teaching experience and hold a qualification in the relevant subject area.

Suitable Subject Area Qualifications may include:

- Degree or DipHE in a related subject such as:
 - Food Science
 - Environmental Health
 - Home Economics
 - Microbiology
 - or one that contains elements of these subjects
- HNC/D in a related subject (as outlined above);
- Level 4 qualification in Food Safety or equivalent;
- Graduate Diploma in Food Science and Technology of the Institute of Food Science and 5 Technology; or
- any other Highfield approved qualification.

Suitable Teaching Qualifications include:

- Highfield Level 3 Award in Delivering Training (RQF);
- Highfield Level 3 International Award in Delivering Training (IADT);
- Level 3 or 4 PTLLS or above;
- Diploma or Certificate in Education;
- Bachelors or Masters Degree in Education;
- City and Guilds Teachers Certificate or equivalent;
- Level 3 or 4 NVQ in Training and/or Development;
- Professional Trainers Certificate; or
- Proof of at least 30 hours of training in any subject.

It is also recommended that Nominated Tutors are able to demonstrate relevant experience and knowledge in a work context and provide evidence of engagement with the subject field and continuing professional development.

Reasonable adjustments and special considerations

Highfield has measures in place for learners who require additional support. Centres can allow 25% additional exam time for learners with English as a second language, when they sit the English exam. Centres must inform Highfield on the invigilation declaration document, of any learners who were allowed this additional time.

Please refer to Highfield Qualifications' Reasonable Adjustments Policy for further information/guidance on other adjustments.

https://www.highfieldqualifications.com/Assets/Files/Highfield_Reasonable_Adjustments_Policy.pdf

ID requirements

All learners should be instructed, ahead of the course/assessment when the learner registers and/or with any pre-course materials, to bring photographic identification to the assessment to be checked by the invigilator.

It is the responsibility of the Centre to have systems in place to ensure that the person taking an examination/assessment is indeed the person they are claiming to be. All Centres are therefore

required to ensure that each learners identification is checked before they are allowed to sit the examination/assessment and write the type of photo identification provided by each learner on the Learner List under “Identification Provided”. Highfield will accept the following as proof of a learners’ Identity:

- National identity card (e.g. Emirates ID card);
- Valid passport (any nationality);
- Signed photo card driving licence;
- Valid warrant card issued by police, government department or equivalent; or
- Other photographic ID card, e.g. employee ID card (must be current employer), student ID card, travel card.

For more information on learner ID requirements, please refer to Highfield Qualifications’ Core Manual.

Progression opportunities

On successful completion of this qualification, learners may wish to continue their development by undertaking one of the following:

- Level 5 Food Safety qualifications
 - Highfield Level 4 Award in HACCP for Management (CODEX principles)(RQF)
 - Hospitality competency-based qualifications
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Useful websites

- www.highfieldqualifications.com
 - www.highfieldinternational.com
 - www.highfieldproducts.com
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Recommended training materials

Hygiene for Management, Sprenger, R.A. Highfield Products

Appendix 1: Qualification content

Unit 1: Principles of Food Safety Management for Manufacturing

GLH: 40

Level: 4

Learning Outcomes	Assessment Criteria
<i>The learner will</i>	<i>The learner can</i>
<p>1. Understand the importance of food safety management in manufacturing</p>	<p>1.1 Explain food business operator and staff responsibilities with regard to food safety</p> <p>1.2 Analyse the requirements and benefits of food safety for the food business</p>
<p>2. Understand the operational requirements needed to ensure food safety</p>	<p>2.1 Explain the requirements for temperature control within a specified food business</p> <p>2.2 Discuss the implementation, management and application of good hygiene practices, to include cleaning, disinfection, waste disposal and pest control</p> <p>2.3 Explain procedures for the control of contamination and cross-contamination</p>
<p>3. Understand how to establish food safety management procedures</p>	<p>3.1 Outline processes for designing and implementing food safety management procedures, including allocating resources, roles and responsibilities</p> <p>3.2 Analyse the risks to food safety from microbial, physical, chemical and allergenic hazards in a specified food business</p> <p>3.3 Communicate food safety management information to staff, visitors and suppliers</p>
<p>4. Understand the controls required for food safety</p>	<p>4.1 Review controls for microbial, physical, chemical and allergenic hazards in a specified food business</p> <p>4.2 Discuss methods for monitoring and recording food safety hazards</p> <p>4.3 Determine the corrective actions required if food safety hazards are not controlled</p>

Learning Outcomes	Assessment Criteria
<i>The learner will</i>	<i>The learner can</i>
<p>5. Understand how to maintain food safety management procedures</p>	<p>5.1 Explain methods for verifying the effectiveness of food safety management procedures</p> <p>5.2 Describe how to implement adjustments to food safety management procedures and the circumstances which may require adjustments to be made</p> <p>5.3 State the need for, and benefits of, staff training and the maintenance of training records</p> <p>5.4 Outline strategies for developing and maintaining a food safety culture within an organisation</p>

Indicative content
<ul style="list-style-type: none"> • Introduction to Food Safety and Contamination • Candidates must understand the importance of food safety management in manufacturing by being able to: <ul style="list-style-type: none"> ○ explain procedures for the control of contamination and cross-contamination ○ define key terms relating to food safety including: <ul style="list-style-type: none"> – food safety/hygiene, food poisoning, contamination, hazard, risk, control, monitoring, corrective action, verification, food safety management system, pathogen, safe food ○ identify the benefits of good and the costs of poor food hygiene: <ul style="list-style-type: none"> – describe the benefits to food businesses, consumers and food handlers of high standards of food hygiene ○ outline the characteristics of different food types: <ul style="list-style-type: none"> – identify, providing examples the main characteristics of high risk, raw, low risk and ready to eat raw foods and outline the dangers associated with contamination of each food type – analyse the risks to food safety from microbial, physical, chemical and allergenic hazards in a specified food business – define the four main food safety hazards: microbiological, physical, chemical and allergenic – give examples of sources of physical hazards, differentiate between intrinsic and extrinsic contamination and identify suitable policies and procedures to control their prevention, detection and removal – give examples of sources of chemical hazards (inherent and introduced) and identify suitable policies and procedures to control their prevention, detection and removal

- describe the main symptoms of an allergenic reaction and give examples of common allergens and identify suitable policies and procedures to prevent consumption by persons who are sensitive to allergens
- describe and explain principal routes vehicles and routes of contamination and cross contamination
- outline the possible consequences if food safety hazards are not controlled
- **Microbiology (Multiplication & Survival Hazards)**
- Candidates must understand how micro-organisms pose a hazard to food safety by being able to:
 - discuss the main characteristics of micro-organisms, including optimum growth requirements:
 - outline the structure, shape and size of bacteria and distinguish between the main types of bacteria
 - describe how bacteria multiply, and identify factors influencing bacterial multiplication
 - state the temperature range of the risk zone, optimum temperatures for bacterial multiplication, temperatures when most pathogens will stop multiplying and temperatures where they will die
 - identify timescales involved in bacterial multiplication and explain the significance of the bacterial growth curve
 - identify effective methods of destroying microbes:
 - methods include: heat (cooking, pasteurisation, ultra-heat treatment), use of chemicals, such as salt, sugar, acids
 - outline the principles involved with methods of preservation
 - explain how bacterial spores and toxins are formed and why these may pose a hazard within the food industry:
 - explain the terms ‘bacterial spore’, identify the role spores play in the survival of bacteria, describe the conditions under which spores are formed and the consequences these may have for food safety
 - describe how some bacteria produce toxins and the consequences for food safety
 - identify the signs of spoilage and identify what may cause spoilage
 - signs of spoilage to include bacterial activity, enzyme activity, moulds, physical damage
 - describe controls which can be utilised to control microbial and enzyme activity to reduce the rate of spoilage in food.

Food poisoning

- Candidates must know and understand the main reasons for food poisoning and understand the importance of preventing illness by being able to:
 - describe common sources, food vehicles, incubation periods and controls of common food poisoning organisms:
 - distinguish the differences between toxic and infectious causes of food poisoning
 - explain the symptoms, sources, incubation periods, and controls for the principal pathogens that cause food poisoning
 - identify groups of people most at risk from food poisoning

- explain the symptoms, sources, incubation periods, and controls for food related viruses and protozoa
- know that chemicals, metals, poisonous plants and fish can cause serious problems in the food industry and provide examples of each
- explain the role of management and enforcement officers in outbreak investigation:
 - identify the role of the manager, supervisor and food handlers regarding food poisoning outbreak investigation
 - develop, implement and review procedures relating to food poisoning outbreak control
- **Food Handlers and Personal Hygiene**
- Candidates must understand the importance of ensuring food handlers do not contaminate food by being able to:
 - outline how people are both sources and causes of food poisoning and identify methods of controlling and monitoring food poisoning and contamination from personnel:
 - explain hazards associated with infections, skin complaints and injury and describe how these can be controlled
 - describe the responsibilities of all staff regarding personal hygiene
 - describe how non-food handling personnel (for example maintenance, contractors, visitors, delivery personnel) can contaminate food and be able to develop, implement and monitor procedures to control from these personnel
 - outline unhygienic practices to be avoided in food handling areas, describe how they may cause contamination and suggest suitable controls
 - describe the importance of hand wash and explain suitable procedures for effective hand wash. Outline important times when hands should be washed
 - discuss the role of management in securing high standards of personal hygiene and preventing contamination of food:
 - describe how to develop, implement and manage an effective personal hygiene policy
 - outline the managers role regarding reporting of illness and establishing and maintaining procedures regarding illness reporting and exclusion
 - outline the characteristics of protective clothing for food handlers:
 - identify types of protective clothing which may be provided and describe how provision of suitable clothing may prevent contamination of food
 - outline the hazards which may be associated with wearing of jewellery, personal effects and nail varnish/false nails and lashes and be able to develop, maintain and monitor policies and procedures to control these hazards
 - identify the importance of excluding food handlers who are ill:
 - state controls necessary for food handlers who are suffering from or suspected of suffering from; food poisoning
 - discuss the benefits and limitations of medical screening for food handlers:
 - identify why carriers are of concern in the food industry and be able to develop, implement and monitor suitable controls
 - identify pros and cons of medical screening
 - identify the personal requirements necessary for food handlers and discuss the need for careful selection of staff

- **Training and Education**
- Candidates must understand how development, implementation and monitoring of food safety training can assist in the prevention of food poisoning and contamination of food by being able to:
 - state the need for, and benefits of, staff training and the maintenance of training records
 - identify the benefits of training and explain why planned training is essential within a food business:
 - explain how training can assist in the development of a positive food safety culture
 - explain the factors requiring consideration (including content) when developing and implementing a food safety training programme:
 - identify the benefits of assessing training needs for all levels of staff (including contractors and temporary staff) when developing food safety training programmes
 - state the importance of considering staff role, experience and skill and explain how barriers to learning such as language or literacy may be overcome
 - describe a variety of methods which can be used to effectively communicate information and responsibilities regarding food safety, including procedural and legislative changes
 - describe sources of information and guidance which may be used when developing a food safety training programme
 - know the importance of implementing food safety training and outline methods by which this can be achieved
 - explain the reasons for providing feedback to staff regarding food safety matters
 - outline the importance of developing supervisors to enable the effective reporting from management to supervisor regarding food safety and outline the importance of refresher training
 - outline the need for training records:
 - describe the need for maintenance of accurate and up to date training records
 - outline how training records can be of use to a food business
- **Food Hazards and Controls from Purchase to Dispatch**
- Candidates must know and understand the role of the manager with regard to managing operational requirements regarding food production by being able to:
 - discuss the hazards associated with the operational methods of the organisation:
 - identify hazards which may be present at each stage of food production and service including purchase, delivery, storage, preparation, cooking, hot holding, cold holding and packing
 - outline the processes and potential hazards associated with interrupted manufacturing processes such as cook-chill, cook-freeze and sous vide
 - explain the importance of reviewing potential hazards and controls in the event of change, for example introduction of a new process, equipment or product change
 - explain the requirements for temperature control within a specified food business
 - identify controls and monitoring required for food purchase and supplier selection, receipt, storage (including the importance of stock control), preparation, thawing, cooking, cooling, packing and distribution:
 - identify suitable methods of selecting, and monitoring suitable suppliers

- outline requirements for safe transport, delivery and receipt of stock
- outline how to monitor supplier food deliveries and describe suitable management actions in the event of poor supplier performance regarding food safety
- describe and explain the principles of temperature control during storage for different food types and be able to develop, implement and monitor controls for ambient, chilled and frozen storage of food
- describe the principles of stock rotation and outline how to design, implement and monitor the effectiveness of the system
- state the requirements of statutory date marking of food and explain the terms ‘use by’ and ‘best before’ and outline rules regarding labelling of both packaged and open foods
- describe the types of food packaging available which is designed to reduce the risk of contamination
- outline the role of management regarding the production and sale of safe food, including the need to identify staffing requirements and provision of other adequate resources
- identify the role of management regarding provision of suitable resources, equipment and procedures regarding transportation of food
- outline extra controls which may be required when providing food to vulnerable groups
- develop, implement, monitor and explain suitable procedures for thawing, chilling, freezing, preparation, cooking, cooling, packing, labelling and distribution of food
- outline the recommended temperatures and conditions for storage, preparation, cooking, cooling, packing, labelling and distribution of foods
- **The Design and Construction, Cleaning & Disinfection and Pest Control of Food Premises and Equipment**
- Candidates must be aware of their role in reducing risks of food contamination from premises and equipment, discuss the implementation, management and application of good hygiene practices, to include cleaning, disinfection, waste disposal and pest control by being able to:
 - discuss the implementation, management and application of good hygiene practices, to include cleaning, disinfection, waste disposal and pest control
 - outline the requirements regarding site selection, construction materials and finishes:
 - describe how site selection, construction materials have an important role in securing and maintaining food safety
 - discuss the role of management regarding satisfactory design and construction of food premises and equipment:
 - identify the role of the manager when selecting new food equipment and premises (including temporary premises)
 - describe the role of the manager with regard to maintenance programmes, including establishing priorities for repair and improvements based on food safety risk
 - explain the importance of linear workflow, including segregation of processes:
 - identify how linear workflow helps to prevent cross contamination
 - discuss the hygienic principles for design and use of food premises and equipment
 - outline principles for selection, siting and maintenance of food equipment
 - outline principles for selection, siting and maintenance of chillers, refrigerators and frozen storage units

- discuss the need for provision of washing facilities, ventilation, lighting and water, effluent and waste disposal:
 - describe the requirements for washing facilities, ventilation, lighting, water, effluent and waste disposal and outline associated hazards and controls for each
 - describe hand washing and drying facilities which must be available for use by food handlers
 - explain why refuse, waste and unfit food should be stored and disposed of correctly and outline methods of achieving this in a food business
- outline the requirements for design and maintenance of food premises:
 - identify how suitable design can assist a food business to comply with legislative requirements
- discuss the management role regarding the principles and importance of cleaning and disinfection:
 - identify how effective cleaning and disinfection of food premises and equipment assists in maintaining food safety
 - discuss the principles of cleaning and disinfection processes (including clean in place) and describe appropriate methods of cleaning and disinfection
 - describe how to store cleaning materials and equipment correctly
 - discuss how to manage difficulties in cleaning premises and equipment
- discuss the management role with regard to the systems of organising, controlling and monitoring cleaning and disinfection to assist in ensuring the safe production of food
- outline the requirements relating to cleaning and disinfection of food premises
- outline the properties and functions of cleaning chemicals:
 - state the energies required for cleaning
 - describe the functions and desirable qualities of detergents, disinfectants and sanitisers and outline when and how each should be used
- develop and implement cleaning schedules to help ensure effective cleaning
- explain responsibilities regarding the implementation of operational procedures regarding pest control
- discuss the hazards and controls involving food pests:
 - outline the hazards associated with pests and explain why pests must be controlled within the food industry
 - explain the actions that should be taken by food handlers, supervisors and managers if evidence of pests is found
 - outline the managers role regarding developing, implementing and monitoring a pest control policy and describe the importance of keeping up to date records
- describe the main food pests and their habits:
 - identify characteristics and habitat of the main food pests, including rodents, insects and birds and identify how to detect signs of an infestation
 - describe conditions that pests require to thrive
- identify the principles of pest control:
 - list and explain the main types of environmental, physical and chemical controls for different pests and outline the benefits and limitations of each
 - know the importance of proofing and good housekeeping in relation to pest control

- describe the considerations to be made when selecting pest control contractor:
 - identify how a pest contractor should be selected and the criteria that may be used to ensure they are suitable
 - explain the importance of monitoring the activities of the pest controller
- **Food Safety Management and HACCP**
- Candidates will know and understand their role in developing, implementing, monitoring, reviewing and evaluating the implementation of food safety management procedures and be able to:
 - outline processes for designing and implementing food safety management procedures, including allocating resources, roles and responsibilities
 - review controls for microbial, physical, chemical and allergenic hazards in a specified food business
 - describe the concept of HACCP and have the knowledge to implement an effective food safety management system based on HACCP principles food safety procedures:
 - identify the origin and purpose of HACCP based food safety systems
 - explain how the development and effective implementation of food safety management systems will benefit both consumers and food businesses
 - describe how food safety management systems may be developed, implemented and maintained within a food business
 - identify and give examples of, expert guidance and support that a food business may need to develop and implement food safety management systems
 - know the preliminary steps required prior to implementing a food safety management system:
 - explain the basic terminology of HACCP
 - explain what is meant by a pre-requisite programme, and explain the importance of pre-requisites in a food business
 - identify the importance of a team approach when developing a HACCP study
 - outline training which HACCP team members require
 - List and describe the seven principles of HACCP
 - explain the importance of determining the scope of the HACCP study and terms of reference
 - explain the importance of conducting a hazard analysis and describe how it may be carried out
 - describe the purpose of control measures and provide examples of controls which can be applied during production and service of food
 - describe the significance of determining critical steps in the process and identify how they may be identified using the decision tree
 - outline the criteria that should be used to establish critical limits, tolerances and target levels at each critical control point
 - discuss methods for monitoring and recording food safety hazards:
 - explain the importance of developing and implementing suitable monitoring procedures and identify how these can be developed and give examples of a variety of monitoring methods which may during production and service of food

- explain the importance of establishing suitable accurate recording systems and describe a monitoring records which may be produced for production and service of food
- explain the manager’s role with regard to establishing roles, responsibilities and reporting routes for the monitoring and supervision of control measures
- determine the corrective actions required if food safety hazards are not controlled:
 - identify types of failures which may occur at critical control points and give examples of suitable corrective actions which may be applied during production and service of food
 - explain the manager’s role with regard to establishing roles, responsibilities and reporting routes for corrective action plans
 - explain why corrective action plans should be established in advance of failures and how this can help to prevent food safety problems
- explain methods for verifying the effectiveness of food safety management procedures:
 - describe documentation that should be developed as part of a HACCP study
- **The Role of the Manager**
- Candidates must have an understanding of the role of the manager in securing food safety, and be able to:
 - communicate food safety management information to staff, visitors and suppliers
 - discuss managers’ role in ensuring food safety
 - outline methods by which management of food safety can be achieved:
 - outline the managers role regarding developing, implementing, monitoring, reviewing, evaluating and reviewing food safety procedures
 - describe ways to determine the success of food safety management procedures and outline how to audit, review and improve food safety management procedures
 - describe how to implement adjustments to food safety management procedures and the circumstances which may require adjustments to be made
 - explain the importance of allocation of responsibilities within a food organisation:
 - state why all staff within a food business have responsibilities for food safety and outline the importance of clear reporting routes
 - explain the role and responsibilities of food handlers with regard to food safety, including following procedures and monitoring of controls
 - explain the role and responsibility of supervisors with regard to food safety
 - describe how effective supervision procedures can assist in ensuring food safety and outline methods of developing, implementing, monitoring evaluating and reviewing those procedures
 - describe the importance of a food safety policy and outline the content of a typical food safety policy:
 - explain general content and importance of a food safety policy with reference to both routine and non-routine procedures
 - explain the importance of including policies and procedures regarding investigation of food poisoning allegations and customer complaints
 - outline the sources of information available:
 - identify other relevant sources of further information advice and guidelines relating to food safety and identify when this may be required

- outline strategies for developing and maintaining a food safety culture within an organisation:
 - explain the importance of developing a positive food safety culture within a food business
 - identify means of achieving and improving a positive food safety culture, for example effective development and communication of food safety procedures, provision of training and other resources, encouraging feedback, having clear reporting routes