



## Qualification Specification for:

### OCN NI Level 3 Extended Diploma in Food Technology and Nutrition

➤ Qualification No: 603/7554/1

## Qualification Regulation Information

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### **OCN NI Level 3 Extended Diploma in Food Technology and Nutrition**

Qualification Number: 603/7554/1

Operational start date: 01 June 2021

Operational end date: 31 May 2026

Certification end date: 31 May 2029

Qualification operational start and end dates indicate the lifecycle of a regulated qualification. The operational end date is the last date by which learners can be registered on a qualification and the certification end date is the last date by which learners can claim their certificate.

All OCN NI regulated qualifications are published to the Register of Regulated Qualifications ( <http://register.ofqual.gov.uk/> ). This site shows the qualifications and awarding organisations regulated by CCEA Regulation and Ofqual.

### **OCN NI Contact Details**

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## Foreword

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This document explains OCN NI's requirements for the delivery and assessment of the following regulated qualification:

→ **OCN NI Level 3 Extended Diploma in Food Technology and Nutrition**

This specification sets out:

- Qualification features
- Centre requirements for delivering and assessing the qualification
- The structure and content of the qualification
- Unit details
- Assessment requirements for the qualification
- OCN NI's quality assurance arrangements for the qualification
- Administration

OCN NI will notify centres in writing of any major changes to this specification. We will also publish changes on our website at [www.ocnni.org.uk](http://www.ocnni.org.uk)

This specification is provided online, so the version available on our website is the most up to date publication. It is important to note that copies of the specification that have been downloaded and printed may be different from this authoritative online version.

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## About Regulation

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### **OCN NI**

Open College Network Northern Ireland (OCN NI) is a regulated Awarding Organisation based in Northern Ireland. OCN NI is regulated by CCEA Regulation to develop and award professional and technical (vocational) qualifications from Entry Level up to and including Level 5 across all sector areas. In addition, OCN NI is regulated by Ofqual to award similar qualification types in England.

### **The Regulated Qualification Framework: an overview**

The Regulated Qualification Framework (RQF) was introduced on 1<sup>st</sup> October 2015: the RQF provides a single framework for all regulated qualifications.

#### **Qualification Level**

The level indicates the difficulty and complexity of the knowledge and skills associated with any qualification. There are eight levels (Levels 1-8) supported by three 'entry' levels (Entry 1-3).

#### **Qualification Size**

Size refers to the estimated total amount of time it could typically take to study and be assessed for a qualification. Size is expressed in terms of Total Qualification Time (TQT), and the part of that time typically spent being taught or supervised, rather than studying alone, is known as Guided Learning Hours (GLH).

## Qualification Summary

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### Sector Subject Area

4.2 Manufacturing technologies

### Qualification Aim

The aim of the OCN NI Level 3 Extended Diploma in Food Technology and Nutrition is to prepare learners for employment within the food manufacturing industry.

### Qualification Objective

The objective of the OCN NI Level 3 Extended Diploma in Food Technology and Nutrition is to provide learners with the skills and knowledge related to food manufacturing including:

- food science, chemistry and microbiology
- food manufacturing, legislation, packaging and labelling
- operational management including quality systems and auditing, and information technology
- food product development and consumer behaviour
- health promotion, food and nutrition

### Qualification Target Group

The OCN NI Level 3 Extended Diploma in Food Technology and Nutrition is targeted at learners who currently are or intend to be employed in food technology and/or food nutrition roles.

### Progression Opportunities

The OCN NI Level 3 Extended Diploma in Food Technology and Nutrition will enable progression to higher level qualifications within the food technology and nutrition industry.

### Entry Requirements

Learners must be at least 16 years of age and have a minimum of four GCSE passes at Grade C or above, including English, Mathematics and Science, or equivalent.

## Ensuring Health & Safety of Learners

Within the OCN NI Level 3 Extended Diploma in Food Technology and Nutrition the health, safety and security of learners are paramount. Every effort must be made by the centre and those involved in the delivery to ensure that learners operate in a safe and secure environment where risk of injury is minimum. Particular attention should be given to:

- ensuring learners are briefed about health, safety and security procedures including how to identify hazards and report accidents/injuries/dangerous occurrences
- ensuring learners understand the key legislative and best practice aspects of the food manufacturing industry
- ensuring necessary risk assessments are carried out
- ensuring appropriate levels of supervision are agreed and implemented prior to delivery
- ensuring learners are aware of the hazards of working within the food manufacturing and nutrition sector
- clear accident reporting procedures being in place
- tools and/or equipment to ensure they are in safe working order and learners are given proper instruction, training, protective clothing and supervision
- appropriate insurance arrangements being in place

## Qualification Support

A Qualification Support pack is available for OCN NI centres within the login area of the OCN NI website (<https://www.ocnni.org.uk/my-account/>), which includes additional support for teachers, eg planning and assessment templates, guides to best practice, etc.

## Delivery Languages

This qualification is available in English only at this time. If you wish to offer the qualification in Welsh or Irish (Gaeilge) then please contact OCN NI who will review demand and provide as appropriate.

## Centre Requirements for Delivering the Qualification

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### Centre Recognition and Qualification Approval

New and existing OCN NI recognised centres must apply for and be granted approval to deliver these qualifications prior to the commencement of delivery.

### Centre Staffing

Centres are required to have the following roles in place as a minimum, although a member of staff may hold more than one role\*:

- Centre contact
- Programme co-ordinator
- Assessor
- Internal Verifier

\*Note: A person cannot be an internal verifier for any evidence they have assessed.

Centres must ensure that staff delivering, assessing and internally verifying qualifications are both trained appropriately and competent to do so.

### Tutors and Assessors

The qualification is assessed within the centre and are subject to OCN NI's quality assurance processes. Units are achieved through internally set, internally assessed, and internally verified evidence.

#### ***Tutors and Assessors must have:***

- at least an Honours degree (2.2 classification), or an equivalent qualification in any of the following:
  - Food Technology
  - Food Science
  - Food Business
  - or a closely related subject

#### **AND ALSO**

- a minimum of 9 months relevant post qualification experience working in the food industry or a Master's degree or higher in a relevant subject



### **Internal Verification**

OCN NI qualifications must be scrutinised through the centre's internal quality assurance processes as part of the recognised centre agreement with OCN NI. The centre must appoint an experienced and trained internal verifier whose responsibility is to act as the internal quality monitor for the verification of the delivery and assessment of the qualifications.

The centre must agree a working model for internal verification with OCN NI prior to delivery of the qualification.

#### ***Internal Verifiers must:***

- have at least one year's occupational experience in the areas they are internally verifying
- attend OCN NI's internal verifier training if not already completed

Internal verifiers are required to:

- support tutors and assessors
- sample assessments according to the centre's sampling strategy
- ensure tasks are appropriate to the level being assessed
- maintain up to date records supporting the verification of assessment and learner achievement

## Structure and Unit Content

### OCN NI Level 3 Extended Diploma in Food Technology and Nutrition

In order to achieve this qualification the learner must achieve all mandatory units – total 180 credits.

Total Qualification Time (TQT) for this qualification: 1800 hours  
 Guided Learning Hours (GLH) for this qualification: 1080 hours

Unit Reference Number	OCN NI Unit Code	Unit Title	Credit Value	GLH	Level
<i>Mandatory units</i>					
<a href="#">H/618/7181</a>	CBF397	Nutritional Health	10	60	Three
<a href="#">K/618/7182</a>	CBF398	Food Science	15	90	Three
<a href="#">M/618/7183</a>	CBF399	Understanding Food Safety and HACCP	10	60	Three
<a href="#">T/618/7184</a>	CBF400	Understanding Food Manufacturing	10	60	Three
<a href="#">A/618/7185</a>	CBF402	Food Legislation and Labelling	5	30	Three
<a href="#">F/618/7186</a>	CBF403	Role of a Food Technologist	5	30	Three
<a href="#">J/618/7187</a>	CBF404	Sensory Analysis in Food Production	10	60	Three
<a href="#">L/618/7188</a>	CBF405	Managing Manufacturing Information and Data	10	60	Three
<a href="#">R/618/7189</a>	CBF406	Food Packaging	5	30	Three
<a href="#">J/618/7190</a>	CBF407	Operational Management in the Food Industry	10	60	Three
<a href="#">L/618/7191</a>	CBF408	Food Chemistry	10	60	Three
<a href="#">R/618/7192</a>	CBF409	Food Microbiology	10	60	Three
<a href="#">Y/618/7193</a>	CBF410	Quality Systems and Auditing within Food Manufacturing	10	60	Three
<a href="#">D/618/7194</a>	CBF411	Food Product Development	10	60	Three

<a href="#">D/618/7213</a>	CBF421	Health Promotion	10	60	Three
<a href="#">H/618/7214</a>	CBF422	Food and Nutrition	10	60	Three
<a href="#">K/618/7215</a>	CBF423	Consumer Behaviour	10	60	Three
<a href="#">M/618/7216</a>	CBF424	Nutrition for Sports Performance	10	60	Three
<a href="#">T/618/7217</a>	CBF425	Human Bio-Physiology	10	60	Three

## Unit Grading Structure

Each unit will be graded as Pass/Merit/Distinction/Fail. All units are internally assessed within this qualification, and each unit has specified assessment criteria at the Pass, Merit and Distinction unit grades.

## Unit grading Matrix

### Unit grading matrix

- To achieve a pass in a unit the learner must have successfully completed all of the pass assessment criteria in that unit
- To achieve a merit in a unit the learner must have successfully completed all of the pass and merit criteria in that unit
- To achieve a distinction in a unit the learner must have successfully completed all of the pass, merit and distinction criteria in that unit

## Qualification Grading Structure

The qualification will be graded overall as follows:

Pass Pass Pass  
 Merit Pass Pass  
 Merit Merit Pass  
 Merit Merit Merit  
 Distinction Merit Merit  
 Distinction Distinction Merit  
 Distinction Distinction Distinction  
 Distinction\* Distinction Distinction  
 Distinction\* Distinction\* Distinction  
 Distinction\* Distinction\* Distinction\*

### **Rationale for Grading Across the Units**

Learners achieving a pass should have a sound knowledge and understanding of the area being assessed, the majority of assessment criteria (AC) are at pass level. Learners meeting all learning outcomes at pass standards stated in the AC in a unit will gain a pass for that unit.

Learners achieving a merit will have demonstrated that they can complete more complex tasks beyond the pass level; there are fewer AC's at these levels. Learners meeting all learning outcomes at pass standards, and where available also at merit standards stated in the AC in a unit will gain a merit for that unit.

Learners achieving a distinction will have demonstrated they can complete more complex tasks at a consistently high level, beyond the merit level; there are fewer AC's at these levels. Learners meeting all learning outcomes at pass standards, and where available also at merit and distinction standards stated in the AC in a unit will gain a distinction for that unit.

### Calculation of the Qualification Grade

The above grades are attained by gaining points for the successful achievement of each unit and the aggregation of those points and conversion to a qualification grade. The following table details the points allocated for pass, merit and distinction for each of the units within the qualification.

Unit Title	Unit Code	Credit Value	Points per unit grade		
			Pass	Merit	Distinction
Nutritional Health	<a href="#">H/618/7181</a>	10	70	80	90
Food Science	<a href="#">K/618/7182</a>	15	105	120	135
Understanding Food Safety and HACCP	<a href="#">M/618/7183</a>	10	70	80	90
Understanding Food Manufacturing	<a href="#">T/618/7184</a>	10	70	80	90
Food Legislation and Labelling	<a href="#">A/618/7185</a>	5	35	40	45
Role of a Food Technologist	<a href="#">F/618/7186</a>	5	35	40	45
Sensory Analysis in Food Production	<a href="#">J/618/7187</a>	10	70	80	90
Managing Manufacturing Information and Data	<a href="#">L/618/7188</a>	10	70	80	90
Food Packaging	<a href="#">R/618/7189</a>	5	35	40	45
Operational Management in the Food Industry	<a href="#">J/618/7190</a>	10	70	80	90
Food Chemistry	<a href="#">L/618/7191</a>	10	70	80	90
Food Microbiology	<a href="#">R/618/7192</a>	10	70	80	90
Quality Systems and Auditing within Food Manufacturing	<a href="#">Y/618/7193</a>	10	70	80	90
Food Product Development	<a href="#">D/618/7194</a>	10	70	80	90
Health Promotion	<a href="#">D/618/7213</a>	10	70	80	90
Food and Nutrition	<a href="#">H/618/7214</a>	10	70	80	90
Consumer Behaviour	<a href="#">K/618/7215</a>	10	70	80	90

Unit Title	Unit Code	Credit Value	Points per unit grade		
Nutrition for Sports Performance	<a href="#">M/618/7216</a>	10	70	80	90
Human Bio-Physiology	<a href="#">T/618/7217</a>	10	70	80	90

The points per unit are added up and then converted to a qualification grade using the following table.

**Points for Qualification Grade Conversion for both:**

→ OCN NI Level 3 Extended Diploma in Food Technology and Nutrition

Points range	Grade
1260 - 1299	PPP
1300 - 1339	MPP
1340 - 1379	MMP
1380 - 1419	MMM
1420 - 1459	DMM
1460 - 1499	DDM
1500 - 1529	DDD
1530 - 1559	D*DD
1560 - 1589	D*D*D
1590 and above	D*D*D*



## Unit Details

Title	Nutritional Health		
Level	Three		
Credit Value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF397		
Unit Reference No	H/618/7181		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand nutritional health, fundamentals of a healthy diet including characteristics of key dietary nutrients and related diseases and disorders.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand nutrition and how it contributes to health.	1.1. Explain what is meant by the term nutrition and the importance of nutritional awareness within the food industry. 1.2. Summarise the key benefits of good nutrition, and the importance of a healthy diet and its relationship to well-being. 1.3. Explain what is meant by energy balance and the energy density of foods and diets.		
2. Understand nutrients found in foods and their effects on the body.	2.1. Compare and contrast the functions and sources of nutrients found in different foods and their effects on the body. 2.2. Explain the effects of different nutrients on health if consumed in insufficient quantities and excessive quantities. 2.3. Compare and contrast the nutritional quality of different types of foods prior to processing and the effects of processing techniques on quality. 2.4. Explain what is meant by functional foods and their purpose.	2.M.1 Evaluate the nutritional health benefits of different functional foods. 2.M.2 Explain how the active ingredients of different functional foods impact on the body's nutritional health.	

<p>3. Understand healthy diets.</p>	<p>3.1. Explain what is meant by a healthy diet and the importance of portion control.</p> <p>3.2. Explain how UK dietary guidelines are used to promote a healthy diet and assist with setting and achieving nutritional targets.</p>	<p>3.M.1 Use nutritional analysis software to analyse a given dietary record.</p> <p>3.M.2 Interpret the nutritional analysis undertaken in AC 3.M.1. to evaluate the nutritional quality of the diet.</p>	<p>3.D.1 Use nutritional analysis undertaken in AC 3.M.2 to make recommendations using Dietary Reference Values (DRV) and guidelines.</p>
<p>4. Understand the relationship between food and diet-related diseases and disorders.</p>	<p>4.1. Explain the main symptoms of different diet-related diseases and disorders.</p> <p>4.2. Summarise dietary improvements that may assist with the treatment or management of symptoms of diet-related diseases and disorders.</p> <p>4.3. Summarise how foods and nutrients contribute to the development of or trigger the symptoms of diet-related diseases and disorders.</p>	<p>4.M.1 Explain the relationship between diet and the progression of given diet related diseases.</p>	<p>4.D.1 Develop a diet plan for a given individual to assist with the management of a diet-related condition and provide appropriate advice.</p>

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	<p>A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes</p> <p>OR</p> <p>A collection of documents containing work that shows the learner's progression through the course</p>	<p>Learner notes/written work</p> <p>Learner log/diary</p> <p>Peer notes</p> <p>Record of observation</p> <p>Record of discussion</p>
Practical demonstration/assignment	<p>A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge</p>	<p>Record of observation</p> <p>Learner notes/written work</p> <p>Learner log</p>

Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Science		
Level	Three		
Credit Value	15		
Guided Learning Hours (GLH)	90		
OCN NI Unit Code	CBF398		
Unit Reference No	K/618/7182		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to gain an understanding of the science relevant to the work of a food technician within the food industry including the manufacture, control and testing of food products.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand periodicity and properties of elements relevant to food.	1.1 Define key terms in relation to elements and the periodic table: a) Atomic Theory b) Periodic Table c) Chemical and Molar Quantities 1.2 Use the appropriate quantities in which chemical systems react.	1.M.1 Use the results from chemical analysis to calculate the molarity of an unknown solution. 1.M.2 Explain situations in which chemical quantities are required to be used in food analysis.	
2. Be able to apply health and safety procedures to minimise risk.	2.1 Use appropriate health and safety procedures in order to minimise risk from identified hazards and justify their use.		
3. Understand chemical testing techniques for food materials.	3.1. Use and explain appropriate chemical testing techniques used to prepare, select and test food materials for: a) fat content b) moisture c) dry matter	3.M.1 Justify the use of the chemical testing techniques identified in AC 3.1.	3.D.1 Review the chosen testing technique, identifying potential errors and the effect of the accuracy of the results from chemical testing methods.
4. Be able to use biological testing techniques on food materials.	4.1 Use appropriate biological testing techniques to prepare, select and test food materials for bacterial enumeration. 4.2 Use appropriate biological testing techniques to prepare cells for microscopy. 4.3 Explain the multiplication of microorganisms. 4.4 Summarise the biological principles of plants and animals as food sources.	4.M.1 Evaluate the biological principles of plants and animals as food sources.	4.D.1 Calculate the number of viable micro-organisms found in given food products.

5. Be able to use physiochemical and sensory testing techniques on food materials.	5.1 Use appropriate physiochemical and sensory testing techniques to prepare, select and test food materials for: a) pH b) colour c) viscosity d) texture	5.M.1 Justify the use of the appropriate physiochemical and sensory testing method identified in A.C. 5.1.	5.D.1 Review the chosen testing method, identifying potential errors and the effect of the accuracy of the results from appropriate physiochemical and sensory testing methods.
6. Understand colloidal systems in food products.	6.1 Explain different colloidal systems in food products.	6.M.1 Analyse factors that may affect the formation and stability of a colloidal system.	6.D.1 Analyse the role of emulsifiers and stabilisers in emulsion formation and stability.

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Understanding Food Safety and HACCP		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF399		
Unit Reference No	M/618/7183		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the importance of food safety to consumers, industry and regulatory authorities. This unit will also develop the learners' understanding of the correct handling of food at all stages in the food supply chain, contamination, the need for good food hygiene and the implementation of Hazard Analysis and Critical Control Point (HACCP).			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand food safety for consumers and manufacturers.	1.1. Explain the importance of food safety for consumers and manufacturers.	1.M.1 Explain the main causes of food poisoning. 1.M.2 Explain high-risk foods in relation to the increased risk to consumer safety.	
2. Understand factors that contribute to the contamination of food.	2.1. Summarise possible contaminants that may occur in food including: a) chemical b) physical c) microbial d) allergenic 2.2. Explain the main routes of transmission in food poisoning and food borne diseases.	2.M.1 Analyse the links between the causative organisms including symptoms, sources, types of foods involved and routes of transmission for the main types of food poisoning and food borne diseases.	2.D.1 Analyse the conditions under which contaminants can increase the risk to consumer safety.
3. Understand the preventative measures required to ensure food safety and their importance.	3.1. Explain the preventative measures used within the food industry in relation to food safety and their effectiveness. 3.2. Explain what is meant by due diligence defence in relation to food safety.	3.M.1 Explain the importance of monitoring preventative procedures used in order to ensure food safety.	
4. Be able to apply the principles of HACCP to develop a manufacturing process.	4.1. Summarise the five preliminary steps involved in the application of principles of HACCP. 4.2. Develop a flow diagram for a given product to include Critical Control Points (CCPs).	4.M.1 Set with justification, critical limits against identified CCPs in AC 4.2.	4.D.1 Diagnose issues in a given HACCP plan identifying areas for possible improvement.

5. Understand Food security, Vulnerability Assessment Critical Control Point (VACCP) and Threat Assessment Critical Control Point (TACCP).	5.1. Explain the importance of Food Security. 5.2. Explain the role of VACCP and TACCP in the food industry.		
<b>Assessment Guidance</b>			
The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.			
Assessment Method	Definition	Possible Content	
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion	
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log	
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary	
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests	

Title	Understanding Food Manufacturing		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF400		
Unit Reference No	T/618/7184		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the food manufacturing industry and food manufacturing operations.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand food manufacturing operations.	1.1. Explain the key features of common food manufacturing operations.	1.M.1 Demonstrate key features of common food manufacturing operations in a given practical environment.	1.D.1 Evaluate and formulate improvements to a given manufacturing operation.
2. Understand planning and control within food manufacturing operations.	2.1. Explain the main aspects of planning and control within food manufacturing operations.	2.M.1 Analyse the food manufacturing planning and control systems and procedures.	
3. Understand the key stages in the manufacturing of food products and selection of raw materials.	3.1. Explain the key stages in the manufacturing of food products within Northern Ireland. 3.2. Explain how the selection of raw material impacts on the final product. 3.3 Define the meaning of key terms used in HACCP.	3.M.1 Create detailed product and process specifications relating to the food production identified in AC 3.1, clearly identifying the main features of manufacturing at each stage. 3.M.2 Explain how the principles of HACCP relate to the food manufacturing sector identified in AC 3.1.	3.D.1 Evaluate the importance of HACCP plans being implemented, verified and maintained.



### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Sensory Analysis in Food Production		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF404		
Unit Reference No	J/618/7187		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the role of sensory analysis in food production. Learners will also understand how to undertake sensory evaluations.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the function of senses and how they influence food perception.	1.1. Analyse the function of and how the interaction of the following senses influences the sensory perception of food: a) taste b) smell c) colour perception d) texture perception	1.M.1 Explain how single senses interact with each other to provide a comprehensive sensory perception.	
2. Understand sensory testing methods.	2.1. Explain the purpose of sensory evaluation and its use within the food industry. 2.2. Explain the three main categories of sensory analysis tests including affective, discrimination and descriptive. 2.3. Explain the main sensory analysis methods within each category and their most suitable applications.	2.M.1 Compare and contrast the effectiveness of objective and subjective methods for the sensory evaluation of foods.	2.D.1 Interpret given data from objective testing to determine food acceptance.
3. Be able to carry out a sensory evaluation.	3.1. Carry out a sensory evaluation on at least three different types of foods. 3.2. Critically compare affective, discriminative and descriptive methods of sensory assessment employed to evaluate different foods.	3.M.1 Analyse data from sensory evaluations undertaken in AC 3.1 to inform decisions regarding future food production.	3.D.1 Evaluate the effectiveness of sensory assessment process used for the given food products in AC 3.1.

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Managing Manufacturing Information and Data		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF405		
Unit Reference No	L/618/7188		
<i>Unit purpose and aim(s):</i> This unit will enable the learners to develop the mathematical, statistical and information technology skills and knowledge required to work as food technicians within the food industry.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Be able to use scientific data, algebraic, statistical and probabilistic methods and techniques in the food manufacturing processes.	1.2. Use scientific data and apply the following mathematical methods and techniques to solve given problems within the food manufacturing processes: a) algebra b) statistics c) probability	1.M.1 Implement a given plan to solve a given problem using scientific data and applying mathematical methods and techniques.  1.M.2 Present results of the plan implemented in AC 1.M.1 to a given audience.	1.D.1 Evaluate the mathematical methods and techniques used in AC 1.M.1 including data collection.
2. Be able to use indices, logarithms and functions to solve food manufacturing problems.	2.1. Use indices logarithms and functions to solve a given problem within a food manufacturing process.	2.M.1 Analyse possible sources of errors in data collected for problem identified in AC 2.1.	
3. Be able to use information technology and management information systems in the food manufacturing processes.	3.1. Use information communication technology and management software within a given food manufacturing process.  3.2. Explain the use of relevant food processing applications and management information systems identified in AC 3.1.  3.3. Demonstrate use of the main IT productivity applications in food manufacturing.	3.M.1 Apply information in the relevant Microsoft Office Suite and perform specific tasks to utilise data analysis.	3.D.1 Evaluate the use of given software and applications in relevant food processing applications and management information systems.

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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Packaging		
Level	Three		
Credit value	5		
Guided Learning Hours (GLH)	30		
OCN NI Unit Code	CBF406		
Unit Reference No	R/618/7189		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the functions of food packaging and materials used in packaging and carry out food packaging evaluation.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the functions of food packaging.	1.1. Explain the purpose and key functions of food packaging.	1.M.1 Evaluate the functions of a given food packaging item.	1.D.1 Evaluate the economic and environmental over-riders of packaging.
2. Understand the role of packaging materials in food product preservation.	2.1 Explain the role of packaging materials to prevent food spoilage.	2.M.1 Analyse a packaging process that may be employed to mitigate spoilage of a given food product.	
3. Understand the content of a food packaging specification.	3.1. Explain the types of information that must be included on a food packaging specification. 3.2. Summarise the importance of including food standards information on food packaging, including adherence to relevant legislation.		
4. Be able to carry out a scientific evaluation of a food package.	4.1. Explain at least five different techniques used to analyse food packing. 4.2. Select and carry out at least three laboratory techniques identified in AC 4.1 to analyse given food packaging.	4.M.1 Justify the choice of techniques used to analyse food packaging selected in AC 4.2.	4.D.1 Evaluate the results of the tests carried out in AC 4.2.

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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Operational Management in the Food Industry		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF407		
Unit Reference No	J/618/7190		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to gain the knowledge and skills relevant to supervise and manage resources and individuals within the food manufacturing industry.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the efficient use of resources in food manufacturing.	1.1 Explain the main types of resources managed by team leaders in food manufacturing. 1.2 Summarise how the resources in AC 1.1 may be measured and managed efficiently and effectively.	1.M.1 Analyse the consumption of resources for a given food manufacturing business.	1.D.1 Justify techniques that could be implemented by the food manufacturing business identified at 1.M.1 to improve efficiency and plan for future resource allocation.
2. Understand production planning in food manufacturing.	2.1 Compare and contrast the three main types of planning in food manufacturing including application of each. 2.2 Explain the factors which may impact scheduling and planning in food manufacturing. 2.3 Summarise how the factors identified in AC 2.2 will impact supply and demand.		
3. Understand human resource management in food manufacturing.	3.1. Explain human resource management in food manufacturing including the role and function of the following: a) recruitment and selection procedures b) target setting and tracking c) disciplinary and grievance procedures d) performance management procedures	3.M.1 Evaluate job applications for a given food manufacturing role, selecting, with justification, appropriate candidates for interview. 3.M.2 Perform an interview to assess the suitability of a candidate for a given food manufacturing job role.	3.D.1 Analyse a given disciplinary case study, recommending with justification, appropriate action to be taken. 3.D.2 Evaluate the outcomes of a performance review interview, providing constructive feedback to the interviewee which includes recommendations for future development against performance targets.



	3.2. Summarise key legislation in relation to human resource management in food manufacturing.		
4. Understand financial control in food manufacturing systems.	4.1. Summarise the importance of controlling costs within a food manufacturing business. 4.2. Explain the different types of costs incurred in a food manufacturing business. 4.3. Explain methods to control finance in a food manufacturing business.		

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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Chemistry		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF408		
Unit Reference No	L/618/7191		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to develop scientific skills and apply it to the main chemical groups found in foods. Learners will develop an understanding of the composition, structure and functionality of proteins, enzymes, carbohydrates and lipids present within foods.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the structure and functions of proteins, denaturation and effects of pH.	1.1 Explain the structure and functions of proteins and denaturation. 1.2 Explain the effect of pH on zwitterion formation.	1.M.1 Compare and contrast the different structural levels of protein and the types of bonding that take place.	1.D.1 Evaluate the role of intramolecular and intermolecular forces in protein denaturation.
2. Understand the structure and actions of enzymes.	2.1 Explain the structure and actions of enzymes. 2.2 Explain the Lock and Key Theory in relation to enzymic browning.	2.M.1 Analyse the cause and effect of enzyme denaturation.	
3. Understand the structure of and reactions associated with different carbohydrates.	3.1. Explain the structure of and reactions associated with carbohydrates including the process of starch gelatinisation. 3.2. Critically compare different carbohydrate structures based on their reactions.		
4. Understand the structure of and reactions associated with lipids.	4.1. Explain the structure and reactions associated with lipids and why they demonstrate plasticity.	4.M.1 Compare and contrast hydrolytic and oxidative rancidity and its impact on foods.	4.D.1 Analyse the cause and degree of rancidity of an oil based on Free Fatty Acid Value and Peroxide Value.

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Title	Quality Systems and Auditing within Food Manufacturing		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF410		
Unit Reference No	Y/618/7193		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the skills and knowledge in the management of quality in food manufacturing including current Quality Management Systems, Auditing, and Good Manufacturing Practices (GMP).			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Know the concept of quality and its associated terminology.	1.1 Explain the main terms and definitions related to quality in q1 food manufacturing. 1.2 Summarise the expectations of quality held by food manufacturers and consumers. 1.3 Summarise the legal requirements for quality in food manufacture.	1.M.1 Explain how different factors and constraints may impact quality during food manufacturing.	
2. Understand Quality Management Systems.	2.1 Outline Quality Management Systems currently used within food manufacturing. 2.2 Summarise the importance of Quality Management Systems in food manufacturing.	2.M.1 Explain the rationale for various types of Quality Management Systems.	2.D.1 Justify the implementation of Quality Management Systems in a specified food manufacturing sector.
3. Be able to carry out a quality audit in food manufacturing.	3.1. Explain the role and importance of auditing in food manufacturing. 3.2. Compare and contrast internal, external and third-party audits. 3.3. Carry out a quality audit using appropriate processes and documentation. 3.4. Summarise the findings from the quality audit carried out in AC 3.3.	3.M.1 Interpret the findings of the quality audit summarised in AC 3.4.	3.D.1 Develop, with justification, corrective actions based on interpretation of findings made in AC 3.M.1.

4. Understand Good Manufacturing Practices (GMP) to ensure food safety in a food manufacturing process.	4.1. Explain with examples what is meant by the term GMP. 4.2. Explain the purpose of GMP for ensuring food safety in food manufacturing. 4.3. Summarise GMP implemented within a given manufacturing environment.	4.M.1 Justify the importance of the GMP implemented at AC 4.3.	
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Product Development		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF411		
Unit Reference No	D/618/7194		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the stages involved in the development of a new product or improvement of an existing product. The learner will also understand the relationship between the consumer, market needs and product development/improvement in the food industry.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the stages involved in the development of a new or improved food product.	1.1 Summarise the stages involved in the development of a new or improved food product. 1.2 Explain the rationale for carrying out market research when developing a new food product or improving an existing one.	1.M.1 Create a new food product development proposal including evidence from idea generation and market research analysis.	1.D.1 Create a development portfolio for a new or improved food product based on the proposal created in AC 1.M.1, including evaluation of rationale and commercial viability.
2. Be able to create a new or improved food prototype product.	2.1 Create a new or improved food prototype product. 2.2 Carry out market research in relation to the food prototype product created in AC 2.1.	2.M.1 Plan and carry out a taste panel for a new/improved food prototype product. 2.M.2 Explain how the interpretation of the results of a taste panel will influence the food product. 2.M.3 Interpret the results of the taste panel carried out in AC 2.M.1.	2.D.1 Explain the processes and challenges involved in translating new food product concepts to industrial scale food manufacture for the food product developed in AC 2.1.
3. Be able to develop a specification for a new or improved food product.	3.1. Explain the importance of developing a specification for a new or improved food product. 3.2. Explain how legislation, safety and quality standards impact on specification development. 3.3. Develop a specification for the new or improved food product created in AC 2.1.		

4. Be able to evaluate a food product and associated development process.	4.1. Explain the importance of evaluating a food product and associated development process. 4.2. Carry out an evaluation of the product created in AC 2.1 including: a) attributes b) development processes	4.M.1 Use the evaluation carried out in AC 4.2 to propose and justify possible improvements to a food product and associated development processes.	
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Health Promotion		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF421		
Unit Reference No	D/618/7213		
<p><i>Unit purpose and aim(s):</i> This unit will enable the learner to understand health promotion. Learners will investigate the different approaches to health promotion and discuss the factors that influence health promotion. Contemporary health promotion themes and the range of strategies used for health promotion will be examined. Learners will develop their own health promotion campaign relevant to a specific group or issue in society.</p>			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand factors that impact on health and health inequalities.	1.1 Explain key factors affecting the health of individuals. 1.2 Explain how the factors identified in AC 1.1 interrelate and impact on the health of individuals and communities. 1.3 Summarise health inequalities in Northern Ireland (NI) using an appropriate health promotion model.		
2. Understand different approaches to health promotion.	2.1 Explain approaches to health promotion used in a given health promotion campaign. 2.2 Summarise the main agencies involved in health promotion within NI.	2.M.1 Evaluate the model of health promotion used in the campaign identified in AC 2.1.	
3. Know the contemporary topics and strategies used by health promoters in health promotion.	3.1. Summarise the roles and responsibilities of health promoters. 3.2. Explain the ethical concerns that may be associated with a given campaign. 3.3. Compare and contrast the use of social media versus conventional strategies in health promotion. 3.4. Explain the contemporary topics used by health promoters.	3.M.1 Explain how health promoters plan, monitor and evaluate a health promotion campaign.	3.D.1 Justify the design and implementation of strategies, approaches and models involved in a given health promotion campaign.



4. Be able to develop a health promotion campaign.	4.1. Develop a health promotion campaign for a given audience to include the following: a) key topics and priorities b) methods and resources c) media strategies d) key background research	4.M.1 Justify key topics and priorities selected in the health promotion campaign developed in AC 4.1.	4.D.1 Analyse the factors that contributed to the effectiveness of the campaign developed in AC 4.1, making recommendations, with justification, for next stage of campaign.
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Title	Food and Nutrition		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF422		
Unit Reference No	H/618/7214		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the link between diet, lifestyle and health. The learner will explore factors that influence health and examine the nutritional requirements of individuals at different stages in their lifecycle.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand factors which may impact diet and health.	1.1 Explain factors which affect dietary choice and how these may positively or negatively impact an individual's health.	1.M.1 Explain current trends in food consumption and how they are influenced by the factors that affect dietary choice.	
2. Understand current nutritional issues that impact on diet and health.	2.1 Analyse current nutritional issues that impact on diet and health.	2.M.1 Summarise the main areas to be covered in developing a plan to address one of the current nutritional issues identified in AC 2.1 .	2.D.1 Develop a plan to address the current nutritional issue identified in AC 2.M.1. 2.D.2 Evaluate the plan developed in 2.D.1.
3. Be able to carry out a nutritional assessment.	3.1. Explain the importance of carrying out a nutritional assessment. 3.2. Compare and contrast different nutritional assessment methods. 3.3. Carry out a nutritional assessment on an individual.	3.M.1 Analyse given nutritional assessment data using nutritional analysis software. 3.M.2 Summarise findings from the analysis carried out in AC 3.M.1 and evaluate how this data can be used to inform individuals with regards to their health.	

4. Understand the nutritional and dietary requirements at different stages of the lifecycle.	4.1. Explain the different stages of the lifecycle. 4.2. Explain the specific nutritional and dietary requirements throughout the lifecycle including the following stages: a) children b) pregnant women c) elderly	4.M.1 Summarise the main areas to be addressed in developing a dietary plan for a given individual or consumer group.	4.D.1 Design a diet plan to meet the dietary requirements of an individual or consumer group.
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E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Consumer Behaviour		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF423		
Unit Reference No	K/618/7215		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the factors that influence the buying behaviour of the food consumer. The unit will also examine current trends in consumer behaviour.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the factors that influence food consumer buying behaviour.	1.1 Explain how the following factors influence the buying behaviour of the food consumer: a) cultural b) social c) personal d) psychological	1.M.1 Analyse the factors identified in A.C. 1.1 and how they influence food consumer buying behaviour for different consumer profiles.	1.D.1 Evaluate the relationship between the different factors that influence food consumer buying behaviour.
2. Understand the decision making process of the food consumer.	2.1 Explain the five stages of the consumer decision making process of the food consumer. 2.2 Explain consumer behaviour models that assist marketers in understanding how consumers make purchase decisions.	2.M.1 Analyse how the consumer decision making process is applied to low involvement and high involvement food purchases.	2.D.1 Evaluate how an understanding of food consumer purchasing behaviour assists in the development of marketing and communication strategies to influence food purchasing behaviour.
3. Understand marketing techniques used to influence food consumer behaviour.	3.1. Summarise the different marketing techniques used by food retailers to influence food consumer behaviour.	3.M.1 Compare and contrast marketing techniques used by two different types of food retailers to influence food consumer behaviour.	3.D.1 Make justified recommendations for improvements to the marketing techniques used by the food retailers identified in AC 3.M.1.
4. Understand current food consumer trends.	4.1. Explain current consumer trends in relation to food choice, shopping habits and lifestyle trends.	4.M.1 Analyse one current trend identified in AC 4.1 for a given food consumer demographic.	4.D.1 Evaluate how food trends identified in AC 4.1 impact on manufacturers, retailers and food consumer behaviour.

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Title	Nutrition for Sports Performance		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF424		
Unit Reference No	M/618/7216		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the theory and techniques of nutrition that are relevant to sport and exercise. The learners will also understand the relationship between athletic performance, and energy, fluid and nutrient needs.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Be able to carry out a body composition assessment and analyse results.	1.1. Summarise the importance and main methods of body composition assessment. 1.2. Carry out a body composition assessment. 1.3. Analyse data derived from the body composition assessment undertaken in AC 1.2.	1.M.1 Evaluate the limitations of body composition assessment for different body types.	
2. Understand the techniques used to measure energy expenditure.	2.1. Summarise the principles of energy expenditure and the techniques used to measure this. 2.2. Calculate energy expenditure using an energy expenditure equation for a given sporting activity.	2.M.1 Evaluate techniques used for energy expenditure measurement.	2.D.1 Justify the use of appropriate techniques for energy expenditure measurement in two contrasting sporting activities.
3. Understand fuel utilisation in sport.	3.1. Explain the principles of fuel utilisation. 3.2. Summarise different types of nutritional ergogenic aids. 3.3. Summarise nutrient requirements before, during and after exercise.	3.M.1 Evaluate the role of nutritional ergogenic aids in exercise including how they impact performance.	3.D.1 Develop a plan to optimise the use of energy and fluids in a given training regime.
4. Understand fluids and water balance in athletic performance.	4.2. Explain the importance of body fluids and water balance in athletic performance. 4.3. Explain the role of sports drinks in a training regime for athletes in two contrasting sporting activities.		

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Title	Human Bio-Physiology		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF425		
Unit Reference No	T/618/7217		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand the physiology of human body systems and how they work.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the structure and function of the human body.	1.1. Analyse and explain the structure and function of each main component within the cell. 1.2. Compare and contrast the differences in simple and compound epithelial tissues and connective tissues. 1.3. Distinguish the main types of muscle tissue found in the human body, relating each structure to function. 1.4. Explain the structure and function of the cardiovascular system. 1.5. Explain the structure and function of the respiratory system. 1.6. Explain the structure and function of the digestion and excretion systems. 1.7. Explain the structure and function of the skeletal system. 1.8. Explain the structure and function of the nervous and endocrine systems.	1.M.1 Explain the relationship between the structure of muscular and skeletal systems for functionality within the human body. 1.M.2 Explain the relationship between the structure of cardiovascular and respiratory systems for functionality within the human body. 1.M.3 Explain the relationship between the structure of digestion and excretion for functionality within the human body. 1.M.4 Explain the relationship between the structure of nervous and endocrine systems for functionality within the human body.	1.D.1 Summarise the interdependence of human body systems while undertaking a given activity, as identified in AC 1.3 up to and including AC 1.8.
2. Understand the functioning of the body systems associated with energy metabolism.	2.1. Explain the processes relating to diffusion and osmosis. 2.2. Explain how the body metabolises energy sources for use within body systems.		



	2.3. Summarise the process of active transport and where it might occur in the human body.		
3. Understand how homeostatic mechanisms operate in the maintenance of an internal environment.	3.1. Explain the process of homeostatic mechanisms in the human body.	3.M.1 Explain the importance of maintaining homeostasis in the human body.	3.D.1 Evaluate the potential causes and effects of a failure of the body system to maintain homeostasis.
4. Understand the importance of functioning body systems.	4.1. Explain routine monitoring activities for the functioning of body systems. 4.2. Interpret data obtained from routine monitoring activities for the functioning of body systems.	4.M.1 Summarise additional methods that can be used to monitor activities for the correct functioning of body systems.	4.D.1 Evaluate the effects on the other body systems of a breakdown or dysfunction of one.

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Legislation and Labelling		
Level	Three		
Credit value	5		
Guided Learning Hours (GLH)	30		
OCN NI Unit Code	CBF402		
Unit Reference No	A/618/7185		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand food legislation, codes of practice and safety and hygiene requirements as they relate to food production.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the role of legislation within the food industry.	1.1. Explain the role of legislation within the food industry.	1.M.1 Analyse using examples the need for legislation to ensure the safe and legal production of wholesome food products.	1.D.1 Evaluate the consequences of non-compliance with food legislation and codes of practice.
2. Understand key aspects and requirements of food industry legislation and codes of practice.	2.1. Explain the key aspects and requirements of the following legislation as it applies to the food industry: a) food safety and hygiene b) food composition requirements c) weight and measures d) food product requirements e) health and safety 2.2. Summarise key aspects of the Food Law Code of Practice for Northern Ireland.	2.M.1 Evaluate how a given food production process or product meets relevant legislation and codes of practice.	
3. Understand key aspects and requirements of food and nutrition labelling legislation.	3.1. Explain key aspects and requirements of food and nutrition labelling legislation including: a) purpose b) required information	3.M.1 Analyse the importance of food labelling and nutrition labelling legislation.	3.D.1 Evaluate the consequences of non-compliance with food labelling and nutrition labelling legislation.
4. Understand how food legislation is enforced within the food industry.	4.1. Explain how food legislation is enforced within the food industry.		

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the learner's progression through the course	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Role of a Food Technologist		
Level	Three		
Credit value	5		
Guided Learning Hours (GLH)	30		
OCN NI Unit Code	CBF403		
Unit Reference No	F/618/7186		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand career options for food technologists.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand career options for food technologists and their role.	1.1. Explain the role of a food technologist in different organisations. 1.2. Explain the career options which are available to a food technologist.	1.M.1 Compare and contrast the roles and responsibilities of a food technologist in at two least different organisations.	1.D.1 Evaluate the skills and knowledge required to enable career progression in the role of a food technologist.
2. Understand the skills required by Food Technologists.	2.1. Summarise the skills required by food technologists.	2.M.1 Compare own skills against those required by a successful food technologist.	2.D.1 Develop a personal development plan to address possible gaps in skills identified in AC 2.M.1.
3. Understand the relationship between food technologists and other stakeholders.	3.1. Analyse the relationships between food technologists and other internal and external stakeholders within the food production industry.		
4. Understand the role and function of the food technologist in the development and launch of food products to market.	4.1. Explain the role and function of the food technologist in the development and launch of food products to market.	4.M.1 Explain how the food technologist collaborates with key internal and external stakeholders in the launch of new food products to market.	4.D.1 Evaluate the strengths and weaknesses of collaborating with stakeholders identified in AC 4.M.1 in relation to the launch of new food products to market.
Assessment Guidance			
The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.			
Assessment Method	Definition	Possible Content	
Portfolio of evidence	A collection of documents containing work undertaken to be assessed as evidence to meet required skills outcomes OR A collection of documents containing work that shows the	Learner notes/written work Learner log/diary Peer notes Record of observation Record of discussion	

	learner's progression through the course	
Practical demonstration/assignment	A practical demonstration of a skill/situation selected by the tutor or by learners, to enable learners to practise and apply skills and knowledge	Record of observation Learner notes/written work Learner log
Coursework	Research or projects that count towards a learner's final outcome and demonstrate the skills and/or knowledge gained throughout the course	Record of observation Learner notes/written work Tutor notes/record Learner log/diary
E-assessment	The use of information technology to assess learners' work	Electronic portfolio E-tests

Title	Food Microbiology		
Level	Three		
Credit value	10		
Guided Learning Hours (GLH)	60		
OCN NI Unit Code	CBF409		
Unit Reference No	R/618/7192		
<i>Unit purpose and aim(s):</i> This unit will enable the learner to understand food microbiology, how microorganisms cause spoilage in food products and the methods used by the food industry to preserve food commodities.			
Learning Outcomes	Assessment Criteria = Pass	Assessment Criteria = Merit	Assessment Criteria = Distinction
1. Understand the microflora of major food commodities.	1.1. Summarise the microflora of five food commodities. 1.2. Explain the common microflora and their sources for a given food commodity. 1.3. Explain the importance of microflora in the production of three food commodities.	1.M.1 Explain how microflora affect food commodities identified in AC 1.1. 1.M.2 Compare and contrast the results from the analysis of a given food commodity to given industry standards.	1.D.1 Use analysis of results in AC 1.M.2 to inform recommendations.
2. Understand food preservation processes.	2.1. Explain the action of different food preservation processes. 2.2. Explain the benefits of food preservation.	2.M.1 Justify the use of different preservation methods for given food commodities.	2.D.1 Compare and contrast the effectiveness of different preservation methods for given food commodities.
3. Understand the microbiological spoilage processes for major food commodities.	3.1. Summarise the four major indicators of food spoilage and deterioration.	3.M.1 Explain the causes of the four major indicators of spoilage outlined in AC 3.1 identifying how spoilage may be prevented.	
4. Be able to analyse food commodities using microbiological techniques.	4.1. Carry out a microbiological analysis demonstrating appropriate aseptic techniques on a given food commodity. 4.2. Carry out a dilution series on a given food commodity using: a) liquid sample b) solid sample 4.3. Carry out microbiological analysis on at least five food commodities using microbiological techniques including:	4.M.1 Use results obtained in AC 4.1 and 4.2 to calculate bacterial colonies in standard form.	4.D.1 Compare and contrast results obtained in AC 4.M.1 to inform conclusions on the microbiological quality of a given food commodity.

- a) labelling plates
- b) pour plates
- c) spread plates
- d) counting plates

### Assessment Guidance

The following assessment method/s may be used to ensure all learning outcomes and assessment criteria are fully covered.

Assessment Method	Definition	Possible Content
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## Quality Assurance of Centre Performance

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### External Verification

All OCN NI recognised centres are subject to External Verification. External verification visits and monitoring activities will be conducted annually to confirm continued compliance with the conditions of recognition, review the centre's risk rating for the qualification and to assure OCN NI of the maintenance of the integrity of the qualification.

The External Verifier will review the delivery and assessment of this qualification. This will include the review of a sample of assessment evidence and evidence of the internal verification of assessment and assessment decisions. This will form the basis of the External Verification report and will inform OCN NI's annual assessment of centre compliance and risk. The External Verifier is appointed by OCN NI.

### Standardisation

As a process, standardisation is designed to ensure consistency and promote good practice in understanding and the application of standards. Standardisation events:

- make qualified statements about the level of consistency in assessment across centres delivering a qualification
- make statements on the standard of evidence that is required to meet the assessment criteria for units in a qualification
- make recommendations on assessment practice
- produce advice and guidance for the assessment of units
- identify good practice in assessment and internal verification

Centres offering units of an OCN NI qualification must attend and contribute assessment materials and learner evidence for standardisation events if requested.

OCN NI will notify centres of the nature of sample evidence required for standardisation events (this will include assessment materials, learner evidence and relevant assessor and internal verifier documentation). OCN NI will make standardisation summary reports available and correspond directly with centres regarding event outcomes.



## Administration

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### Registration

A centre must register learners within 20 working days of commencement of a qualification.

### Certification

Certificates will be issued to centres within 20 working days of receipt of correctly completed results marksheets. It is the responsibility of the centre to ensure that certificates received from OCN NI are held securely and distributed to learners promptly and securely.

### Charges

OCN NI publishes all up to date qualification fees in its Fees and Invoicing Policy document. Further information can be found on the centre login area of the OCN NI website.

### Equality, Fairness and Inclusion

OCN NI has considered the requirements of equalities legislation in developing the specification for these qualifications. For further information and guidance relating to access to fair assessment and the OCN NI Reasonable Adjustments and Special Considerations policies, centres should refer to the OCN NI website.

### Retention of Evidence

OCN NI has published guidance for centres on the retention of evidence. Details are provided in the OCN NI Centre Handbook and can be accessed via the OCN NI website.

## Qualification Information

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OCN NI Level 3 Extended Diploma in Food Technology and Nutrition

Qualification Number: 603/7554/1

Operational start date: 01 June 2021

Operational end date: 31 May 2026

Certification end date: 31 May 2029

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