IfATE
Shaping skills training

EPA Draft Preview

DRAFT END-POINT ASSESSMENT PLAN FOR THE FOOD INDUSTRY TECHNICAL PROFESSIONAL (INTEGRATED DEGREE) APPRENTICESHIP

ST0197/V1.1

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS END-POINT ASSESSMENT (EPA)	INTEGRATION
ST0197	6	Degree-apprenticeship

Contents

Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the food industry technical professional (integrated degree) degree-apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.

Food industry technical professional (integrated degree) apprentices, their employers and training provider should read this document.

A degree-apprenticeship awards a degree with the achievement of the apprenticeship. The degree learning outcomes must be aligned with the knowledge, skills and behaviours (KSBs) in the apprenticeship. The degree must be completed, passed and awarded alongside the food industry technical professional (integrated degree) degree-apprenticeship.

The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

A degree-apprenticeship must be delivered by a Higher Education Provider (HEP) that is on the apprenticeship providers and assessment register (APAR). The selected HEP must be the training provider and the EPAO. The apprentice's employer must select a HEP from this register.

If the HEP is using a credit framework, the EPA must contribute to the total credit value, and must be delivered in line with this EPA plan. However, the number of credits devoted to EPA may vary across HEP's. The recommended EPA contribution is 40 credits of the total credit value.

A full-time food industry technical professional (integrated degree) apprentice typically spends 48 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

This EPA should then be completed within an EPA period lasting typically 3 months.

Occupational competence is outlined by the EPA grade descriptors and determined, when assessed in line with this EPA plan, by an independent assessor who is an occupational expert and confirms the overall EPA grade.

This EPA has 2 assessment methods.

Assessment method 1 - presentation and questions:

- fail
- pass
- distinction

Assessment method 2 - professional interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

The result from each assessment method is combined to decide the overall degree-apprenticeship grade. The following grades are available for the degree-apprenticeship:

- fail
- pass
- merit
- distinction

EPA summary table

On-programme - typically 48 months	The apprentice must: • complete training to develop the apprenticeship standard's knowledge, skills and behaviours (aligned to the standards of proficiency for food industry technical professional (integrated degree)). • complete training towards English and mathematics qualifications in line with the apprenticeship funding rules.
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent. The apprentice must: • confirm they are ready to take the EPA • have met the knowledge, skills and behaviours (KSBs) outlined in the apprenticeship standard • have achieved all required modules from the: • **food industry technical professional degree that fully aligns with the KSBs within the apprenticeship standard** • have achieved English and mathematics qualifications in line with the apprenticeship funding rules • achieved all required modules, taking into account any recognition of prior learning (RPL), of the food industry technical professional (integrated degree) qualification but before the Approved Education Provider's examination board
End-point assessment - typically 3 months	**The grades available for each assessment method are below** Presentation and questions: • fail • pass • distinction Professional interview underpinned by a portfolio of evidence:

	• fail • pass • distinction **Overall EPA and degree-apprenticeship can be graded:** • fail • pass • merit • distinction
Professional recognition	This apprenticeship aligns with: • The Science Council for Registered Scientist (RSci) for Upon successful completion of the apprenticeship and upon receipt of the apprenticeship certificate, individuals are eligible to apply for RSci through a shortened application route. Individuals also need to be a member of a professional body that is licensed by the Science Council to be awarded this status. Further information is on the Science Council's. website. This apprenticeship aligns with: • TBC: Institute of Food Science and Technology for ? Trailblazer chair is investigating ?
Re-sits and re-takes	The details for re-sits and re-takes are below: • re-take and re-sit overall EPA grade cap: merit • re-take and re-sit individual EPA method grade cap: pass • re-sit timeframe: typically 2 months • re-take timeframe: typically 3 months

Duration of end-point assessment period

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

EPA gateway

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- have completed and passed all required elements of the Food industry technical professional degree that fully aligns with the KSBs within the apprenticeship standard degree-apprenticeship except the EPA
- submit a portfolio of evidence for the professional interview underpinned by a portfolio of evidence

Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview. It will typically contain 15 pieces of evidence. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include workplace documentation and records, for example:

- workplace policies and procedures
- witness statements
- annotated photographs
- video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance, for example, witness statements, rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.

Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

Order of assessment methods

The assessment methods can be delivered in any order. The result of one assessment method does not need to be known before starting the next.

Presentation and questions

Overview

In the presentation with questions, the apprentice delivers a presentation to an independent assessor on a set subject. The independent assessor must ask questions after the presentation. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- it assesses understanding of a subject it assesses knowledge and skills that cannot be directly observed in practice
- it allows the apprentice to directly demonstrate KSBs relating to communication and presentation
- it provides the opportunity to use authentic workplace contexts which increases assessment validity in relation to the occupational role
- it allows for the presentation of evidence and testing of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

Delivery

The presentation and questions must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the presentation with questions.

The presentation must cover:

- Collaboration
- Food safety

  Processing

- Testing

The purpose of the presentation is to allow the apprentice to demonstrate their competence against the grading descriptors.

The apprentice must submit any presentation materials to the EPAO by the end of week 2 of the EPA period. The apprentice must notify the EPAO, at that point, of any technical requirements for the presentation.

During the presentation, the apprentice must have access to:

- audio-visual presentation equipment
- flip chart and writing and drawing materials
- computer

The independent assessor must have at least 2 weeks to review any presentation materials, before the presentation is delivered by the apprentice, to allow them to prepare questions. The EPAO must give the apprentice at least 14 days' notice of the presentation assessment.

The independent assessor must ask questions after the presentation.

The purpose of the questions is:

- to seek clarification where required
- to assess the level of competence against the grading descriptors

The presentation and questions must last 30 minutes. This will typically include a presentation of 15 minutes and questioning lasting 15 minutes. The independent assessor must use the full time available for questioning. The independent assessor can increase the total time of the presentation and questioning by up to 10%. This time is to allow the apprentice to complete their last point or respond to a question if necessary.

The independent assessor must ask at least 4 questions. They must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision. The independent assessor must assess the presentation and answers to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the KSBs demonstrated

- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The presentation with questions must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises. The presentation with questions should take place in a quiet room, free from distractions and influence.

The presentation and questions can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the presentation and questions:

- independent assessor EPA materials which include:
  - training materials
  - administration materials
  - moderation and standardisation materials
  - guidance materials
  - grading guidance
  - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Professional interview underpinned by a portfolio of evidence

Overview

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

Delivery

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the interview.

The purpose of the independent assessor's questions will be to assess the apprentice's competence against the following themes:

- Audits
- Food safety
- Processing
- Stakeholders
- Testing

The EPAO must give an apprentice 14 days' notice of the interview.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 60 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

The independent assessor must ask at least 10 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the

assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision.

The independent assessor must keep accurate records of the assessment. They must record:

- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

The interview should take place in a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the professional interview underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
  - training materials
  - administration materials
  - moderation and standardisation materials

    guidance materials

- grading guidance
- question bank

- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Grading

Presentation and questions

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Collaboration K16 K23 K27 S12 S15 S19 S20 B2 B4 B5 B6	Articulates how they apply project management tools and leadership and management styles to deliver projects to time, cost, specification and quality, taking ownership and responsibility for delivering work and striving towards technical excellence. (K23, K27, S15, B2) Explains how they have used problem solving and continuous improvement techniques to design and implement systems that are fully compliant with customer and legal requirements. (K16,S19) Explains how they lead, inspire and negotiate with internal and external stakeholders in the provision of technical guidance, working across multi-functional teams, demonstrating integrity and respect and adapting communication for all. (S12, S20, B5, B6)	Evaluates how they manage internal and external relationships in delivering systems and technical guidance that meet a range of stakeholder requirements. (K23, S19, S20)
Food safety K1 K3 K5 K13 S11 S17	Discusses how they use, design and implement site procedures and food management safety systems using product and environmental microbiology, food hazard controls, food safety hygiene legislation and regulation. (K1, K3, K5, K13, S11) Justifies the selection of scientific techniques and service providers based on analysis of cost and practicalities. (S17)	Evaluates the process of designing legally compliant food safety systems. (S11, K13)

Processing K7 K10 K11 K15 K21 S2 S13 S22 B7	Explains how they establish and optimise process parameters and measure impact of process on products across common industry processes and ingredient categories, dealing with product non-conformance and fostering new ways of thinking and working. (K7, K19, K11, S2, S13, B7 Discusses how they plan, manage and review products and processes against factors governing food safety, ethics, sustainability, waste reduction and energy optimisation and participating in eco-friendly practices. (K15, K21, S22)	Evaluates the impact of changes to processes on environmental sustainability. (K21, S22)
Testing methods K17 S7 S21	Explains how they use tools to support delivery of consistent quality products. (S7) Explains how they identify, source, select and analyse and present technical data and how they critically evaluate complex information using digital and mathematical techniques including Statistical Process Control (SPC). (K17, S21)	Critically evaluates tools and methods of technical data analysis in delivery of consistent product quality. (K17, S7, S21)

Professional interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Audits and performance K26 S5 S9 S10 S16 S18	Explains how to deliver internal and external audits that ensure compliance with legal, industry and customer standards. (K26, S5, S9) Explains how they use corrective actions, incident management procedures, supplier performance monitoring, risk management processes and manage complaint performance and the design of corrective action programmes. (S10, S16, S18)	Evaluates role of internal and external audits in quality and food safety systems. (K26, S5, S9)
Food composition and food safety K2 K4 K8 K9 K19 K20 K24 S1 S4 S6 B1 B3	Explains how they contribute to the development, validation and implementation of HACCP system through allergen control, microbiological and chemical testing and identification of risk factors and labelling. (K2, K4, S1)) Explains how they promote food safety culture, health and safety and sustainable working practices throughout the stages of the product design and development process process. (K20, S6, B1) Explains the characteristics of packaging systems and properties of packaging materials that meet safety standards and promote shelf life and environmental sustainability. (K19, K24)	Evaluates the effectiveness of food safety systems and the importance of own role in those systems. (K2, S1, B1)

	Explains how products can be adapted to meet dietary requirements and trends and the enhancement of nutritional impact of food components to meet customer needs. (K8, K9, S4, B3)	
Processing K22 S8	Explains hygienic design and practices for factories and how they monitor integrated cleaning and hygiene programmes. (K22, S8)	Evaluates hygienic design practices and their impacts on the business. (K22, S8)
Stakeholders K12 S14	Explains how they collaborate with internal and external partners to deliver new or existing product development projects using food supply chain management systems and practices to ensure safety, quality and legality. (K12, S14)	Evaluates impact of product development projects on final product and services. (K12, S4)
Testing systems K6 K14 K18 K25 S3	Explains how they interpret laboratory results, use food analysis and food quality management systems to identify trends, issues and implement action plans. (K6, K14, S3) Explains the selection of laboratory test procedures and methods used to measure charactersistics of food products. (K18, K25)	Evaluates the impact of laboratory techniques and food quality management systems on the characteristics food products. (K14, K18, K25, S3)

Overall EPA grading

Performance in the EPA determines the overall grade of:

- fail

- pass
- merit
- distinction

An independent assessor must individually grade the presentation and questions and professional interview underpinned by a portfolio of evidence in line with this EPA plan.

The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one assessment method or more, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

Aggregation of the degree-apprenticeship

The outcome of the EPA must be aggregated with the degree to enable the degree-apprenticeship to be awarded. Once the overall EPA grade has been determined in accordance with this EPA plan, aggregation can be achieved in a variety of ways. This will be determined during the creation of the degree-apprenticeship. Examples of how this aggregation can work include:

- each assessment method grade, and therefore the overall EPA grade, can be converted to marks or percentages however these must be an absolute figure and not a range
- alternatively, the overall EPA grade can be used directly

HEPs can explore other ways of aggregating the EPA with the degree outcomes in-line with the latest IfATE degree-apprenticeship policy.

PRESENTATION AND QUESTIONS	PROFESSIONAL INTERVIEW UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

EPA degree apprenticeship aggregation

The outcome of the EPA must be aggregated with the degree to enable the degree-apprenticeship to be awarded.

Once the overall EPA grade has been determined, aggregation can be achieved in a variety of ways. This will be determined during the creation of the degree-apprenticeship. Examples of how this aggregation can work include:

- each assessment method grade, and therefore the overall EPA grade, can be converted to marks or percentages however these must be an absolute figure and not a range
- alternatively, the overall EPA grade can be used directly

HEPs can explore other ways of aggregating the EPA with the degree outcomes in line with the latest IfATE degree-apprenticeship policy

Re-sits and re-takes

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 2 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 3 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of merit if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Roles and responsibilities

ROLES	RESPONSIBILITIES
Apprentice	As a minimum, the apprentice should: • complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months • complete the required amount of off-the-job training specified by the apprenticeship funding rules as arranged by the employer and training provider • understand the purpose and importance of EPA • prepare for and undertake the EPA including meeting all gateway requirements • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan
Employer	As a minimum, the apprentice's employer must: • select the HEP (and therefore the training provider and EPAO) • work with the training provider (where applicable) to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs • arrange and support off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA • ensure the apprentice is prepared for the EPA • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner • provide access to any employer-specific documentation as required, for example company policies) • ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs. • ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA • ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place • ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based

	assessments • remain independent from the delivery of the EPA • pass the certificate to the apprentice upon receipt from the EPAO

EPAO - HEP	As a minimum, the EPAO (HEP) must:
	• conform to the requirements of the apprenticeship provider and assessment register
	• conform to the requirements of this EPA plan and deliver its requirements in a timely manner
	• conform to the requirements of the external quality assurance provider (EQAP)
	• understand the degree-apprenticeship, including the apprenticeship standard, EPA plan and funding
	• make all necessary contractual arrangements, including agreeing the price of the EPA
	• develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material)
	• maintain and apply a policy for the declaration and management of conflict of interests and independence which ensures, as a minimum, no personal benefit or detriment is received by those delivering the EPA or from the result of an assessment and covers:
	  • apprentices
	  • employers
	  • assessors
	  • the HEP's role as a training provider
	  • any other roles involved in delivery or grading of the EPA
	• have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of IQA activity for external quality assurance (EQA) purposes
	• appoint independent, competent and suitably qualified assessors in line with the requirements of this EPA plan
	• where required to facilitate the EPA, appoint administrators, invigilators and any other roles
	• deliver induction, initial and on-going training for all assessors, and if used administrators and invigilators and any other roles involved in delivery or grading of the EPA

	specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required
	• standardise all assessors, before allowing them to deliver EPAs and:
	  • when the EPA is updated
	  • at least once a year
	  • moderate their decisions once EPAs have begun
	• monitor the performance of all assessors and provide re-training where necessary
	• develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders
	• use language in the development and delivery of the EPA that is appropriate to the level of the degree-apprenticeship
	• arrange for the EPA to take place in a timely manner, in consultation with the employer
	• provide information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA
	• confirm all gateway requirements have been met
	• host and facilitate the EPA or make suitable alternative arrangements
	• maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation, security of materials
	• where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary
	• confirm the overall EPA grade
	• arrange the certification of the degree-apprenticeship
	• conduct appeals where required, according to the EPAO's appeals procedure

Training provider - HEP	As a minimum, the training provider (HEP) must: • conform to the requirements of the apprenticeship provider and assessment register

	• ensure procedures are in place to mitigate against any conflict of interest • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as outlined in the apprenticeship standard • deliver training to apprentices as outlined in their learner agreement • monitor the apprentice's progress during any training provider led on-programme learning • ensure the apprentice is prepared for the EPA • advise the employer, upon request, on the apprentice's readiness for EPA • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan
Independent assessor	As a minimum, an independent assessor must: • be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment • not be employed by the same organisation as the apprentice or employed by an organisation on IfATE's directory of professional and employer-led bodies (employer directory) that supports external quality assurance. • be current and active in the occupation, for example be sourced from the industry or a professional body • have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation • have authority to represent the professional body where the EPA is acting as the professional body's assessment process (if necessary and permitted in the EPA plan) • have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan • understand the degree-apprenticeship (occupational standard and EPA plan) • attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year • use language in the delivery of the EPA that is appropriate to the level of the degree-apprenticeship

	• work with other personnel, including additional assessors where used, in the preparation and delivery of assessment methods • conduct the EPA to assess the apprentice against the KSBs and in accordance with the EPA plan • make all final grading decisions on an apprentice's occupational competence in accordance with grading descriptors in this EPA plan • if an assessor panel is used, the independent assessor must chair and make final grading decisions • record and report all assessment outcome decisions for each apprentice • comply with the IQA requirements of the EPAO • comply with external quality assurance (EQA) requirements
External examiner	As a minimum, the external examiner must: • confirm the EPA has been delivered in accordance with the EPA plan • accept, and therefore not change, the EPA grading decisions made by the independent assessor • comply with the requirements of the EPA plan and IfATE policies • comply with the requirements, policies, and procedures of the EQA provider • be independent of the apprentice, and the employing organisation who are involved in delivering the degree-apprenticeship • be independent of the delivery and awarding of the EPA • not have been involved in the teaching or on-programme assessment of the apprentice

Reasonable adjustments

Reasonable adjustments

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations

The EPAO must have special consideration arrangements for the EPA.

This should include:

- how an apprentice qualifies for a special consideration
- what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Internal quality assurance

They must also appoint independent assessors who:

- have recent relevant experience of the occupation or sector to at least occupational level 6. With 5 years or significant experience of the occupation or sector
- meet the following minimum requirements:
  - hold a degree in a related area such as food science, food technology, chemistry, microbiology or nutrition
  - complete a minimum of 5-days food and drink related continuing professional development per year
  - be a professional member of a relevant professional body

Value for money

Affordability of the EPA will be aided by using at least some of the following:

- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- conducting assessment methods on the same day

Professional recognition

This degree-apprenticeship aligns with:

- The Science Council for Registered Scientist (RSci) for Upon successful completion of the apprenticeship and upon receipt of the apprenticeship certificate, individuals are eligible to apply for RSci through a shortened application route. Individuals also need to be a member

of a professional body that is licensed by the Science Council to be awarded this status. Further information is on the Science Council's. website.

This degree-apprenticeship aligns with:

- TBC: Institute of Food Science and Technology for ? Trailblazer chair is investigating ?

Mapping of KSBs to assessment methods

KNOWLEDGE	ASSESSMENT METHODS
K1 Product and environmental microbiology.	Presentation and questions
K2 Food allergy and intolerance management, including labelling requirements and management systems for control of allergens in manufacturing.	Professional interview underpinned by a portfolio of evidence
K3 Food safety and hygiene legislation and regulation.	Presentation and questions
K4 Food microbiological, chemical and analytical testing techniques and principles including sampling and interpretation of results.	Professional interview underpinned by a portfolio of evidence
K5 Food hazards and their controls.	Presentation and questions
K6 Food analysis including fat, moisture, carbohydrate, protein, energy, density and melting point.	Professional interview underpinned by a portfolio of evidence
K7 Composition of food and its nutritional value and trends; including rheology, fluid dynamics, thermodynamics.	Presentation and questions
K8 Enhancing nutritional impact of food components, macro and micro-nutrients; preserving and enhancing nutritional values in processing, distribution and sale.	Professional interview underpinned by a portfolio of evidence
K9 How products can be developed and adapted to meet dietary requirements, habits and consumer trends.	Professional interview underpinned by a portfolio of evidence
K10 Functionality of ingredient categories including, dairy, fresh and frozen produce, meat, fish, bakery, oils and fats, alternative proteins, flavourings and functional ingredients.	Presentation and questions

K11 Principles of food processes, including, mixing and blending, batch and continuous processing, baking, thermal processing, canning, pasteurisation, enrobing, chilling and freezing.	Presentation and questions
K12 Food supply chain management systems and practices to assure the safety, quality and legality of all raw materials, packaging, final product and services.	Professional interview underpinned by a portfolio of evidence
K13 Food safety management systems including, specifications, traceability systems, food defence and food safety culture.	Presentation and questions
K14 Food quality management systems such as total quality management. Including, organoleptic quality assessment panels and various weight control systems.	Professional interview underpinned by a portfolio of evidence
K15 How to plan, manage and review products and processes, monitoring costs and measure against technical and operational Key Performance Indicators.	Presentation and questions
K16 Problem solving and continuous improvement techniques, including root cause analysis and investigation methods.	Presentation and questions
K17 Methods to collect, interpret and analyse technical data, using digital and mathematical techniques and presenting information, including Statistical Process Control (SPC).	Presentation and questions
K18 Identification and selection of appropriate laboratory test methods, the interpretation of results and the appropriate actions to take.	Professional interview underpinned by a portfolio of evidence
K19 Characteristics of packaging systems taking account of food safety hazards and quality, including processing and filling operations to assure shelf life compliance.	Professional interview underpinned by a portfolio of evidence

K20 The processes from concept to launch for new and existing product and process development, to include specification definition, scaling-up, hazard identification, technical feasibility and commercial viability.	Professional interview underpinned by a portfolio of evidence
K21 Factors governing food safety, ethics, integrity and sustainability within the global supply chain including, waste reduction and energy optimisation.	Presentation and questions
K22 Hygienic design and practices for factories and equipment, including Cleaning In Place (CIP).	Professional interview underpinned by a portfolio of evidence
K23 Principles used to lead, develop and manage resources, people and budgets.	Presentation and questions
K24 Properties of packaging materials that meet product preservation, shelf life and environmental sustainability goals.	Professional interview underpinned by a portfolio of evidence
K25 Methods used to measure appearance, colour, aroma, taste, texture and overall sensory characteristics of food products.	Professional interview underpinned by a portfolio of evidence
K26 Audit inspection and preparation requirements for quality and food safety systems.	Professional interview underpinned by a portfolio of evidence
K27 Leadership and management styles and how to inspire team members.	Presentation and questions

SKILL	ASSESSMENT METHODS
S1 Contribute to the development, validation and implementation of the Hazard Analysis and Critical Control Point (HACCP) system.	Professional interview underpinned by a portfolio of evidence
S2 Establish process parameters and control requirements; measure the impact of process on product, set limits and take action to deal with process and product non-conformance.	Presentation and questions
S3 Interpret laboratory results; identify and analyse trends to diagnose or anticipate issues; define and implement action plans.	Professional interview underpinned by a portfolio of evidence
S4 Contribute to creating and implementing product specifications to meet customer requirements, identifying the key risk factors in product design.	Professional interview underpinned by a portfolio of evidence
S5 Contribute to the development of internal audits to ensure compliance with legal, industry and customer standards.	Professional interview underpinned by a portfolio of evidence
S6 Identify and promote tools to ensure a food safety culture within the organisation.	Professional interview underpinned by a portfolio of evidence
S7 Utilise tools to support the delivery of consistent quality of products.	Presentation and questions
S8 Establish and monitor integrated cleaning and hygiene programmes.	Professional interview underpinned by a portfolio of evidence
S9 Drive external audits including preparation, auditor interaction and corrective actions.	Professional interview underpinned by a portfolio of evidence
S10	Professional interview underpinned by a

Manage complaint performance through the identification of trends and the design of corrective action programmes.	portfolio of evidence
S11 Design and implement site procedures to ensure legal compliance with current food law.	Presentation and questions
S12 Manage, influence and negotiate with internal and external stakeholders.	Presentation and questions
S13 Optimise and control parameters that influence common industry processes, for example: washing, mixing, heating, cooking, cooling and chilling, freezing, drying, freeze drying.	Presentation and questions
S14 Collaborate with internal and external partners to deliver new or existing product development projects.	Professional interview underpinned by a portfolio of evidence
S15 Apply project management tools to deliver projects to time, cost, specification and quality.	Presentation and questions
S16 Coordinate investigations into product non-conformances and implement incident management procedures.	Professional interview underpinned by a portfolio of evidence
S17 Review and select scientific techniques considering cost and practicalities and justifying the selection of service providers.	Presentation and questions
S18 Contribute to monitoring supplier performance and intake controls using supplier risk management processes.	Professional interview underpinned by a portfolio of evidence
S19 Design, implement and validate traceability systems to be fully compliant with customer and legal requirements.	Presentation and questions
S20 Lead, inspire and support the development of the team, providing technical guidance on food safety and quality.	Presentation and questions

S21 Identify, select and source relevant data and critically evaluate complex information to inform actions.	Presentation and questions
S22 Support and participate in environmental sustainability efforts by ensuring eco-friendly practices, such as waste reduction and energy optimisation.	Presentation and questions
BEHAVIOUR	**ASSESSMENT METHODS**
B1 Committed to the promotion of food safety, health and safety, environment and sustainable working practices.	Professional interview underpinned by a portfolio of evidence
B2 Proactively takes ownership and responsibility for delivering work and striving towards technical excellence.	Presentation and questions
B3 Responsive to change, demonstrates flexibility to changing working environment and demands.	Professional interview underpinned by a portfolio of evidence
B4 Demonstrates integrity and respect including diversity, beliefs, culture, needs and preferences. adapting communication for all.	Presentation and questions
B5 Committed to developing and leading collaborative working relationships across multi-functional teams.	Presentation and questions
B6 Inspires others and acts as an ambassador internally and externally.	Presentation and questions
B7 Fosters new ways of thinking and working; seeks out opportunities to drive forward change and improvements for the business and industry.	Presentation and questions

Mapping of KSBs to grade themes

Presentation and questions

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Collaboration K16 K23 K27 S12 S15 S19 S20 B2 B4 B5 B6	Problem solving and continuous improvement techniques, including root cause analysis and investigation methods. (K16) Principles used to lead, develop and manage resources, people and budgets. (K23) Leadership and management styles and how to inspire team members. (K27)	Manage, influence and negotiate with internal and external stakeholders. (S12) Apply project management tools to deliver projects to time, cost, specification and quality. (S15) Design, implement and validate traceability systems to be fully compliant with customer and legal requirements. (S19) Lead, inspire and support the development of the team, providing technical guidance on food safety and quality. (S20)	Proactively takes ownership and responsibility for delivering work and striving towards technical excellence. (B2) Demonstrates integrity and respect including diversity, beliefs, culture, needs and preferences. adapting communication for all. (B4) Committed to developing and leading collaborative working relationships across multi-functional teams. (B5) Inspires others and acts as an ambassador internally and externally. (B6)
Food safety K1 K3 K5 K13 S11 S17	Product and environmental microbiology. (K1) Food safety and hygiene legislation and regulation. (K3) Food hazards and their controls. (K5) Food safety management systems including, specifications,	Design and implement site procedures to ensure legal compliance with current food law. (S11) Review and select scientific techniques considering cost and practicalities and justifying the	None

	traceability systems, food defence and food safety culture. (K13)	selection of service providers. (S17)	
Processing K7 K10 K11 K15 K21 S2 S13 S22 B7	Composition of food and its nutritional value and trends; including rheology, fluid dynamics, thermodynamics. (K7) Functionality of ingredient categories including, dairy, fresh and frozen produce, meat, fish, bakery, oils and fats, alternative proteins, flavourings and functional ingredients. (K10) Principles of food processes, including, mixing and blending, batch and continuous processing, baking, thermal processing, canning, pasteurisation, enrobing, chilling and freezing. (K11) How to plan, manage and review products and processes, monitoring costs and measure against technical and operational Key Performance Indicators. (K15)	Establish process parameters and control requirements; measure the impact of process on product, set limits and take action to deal with process and product non-conformance. (S2) Optimise and control parameters that influence common industry processes, for example: washing, mixing, heating, cooking, cooling and chilling, freezing, drying, freeze drying. (S13) Support and participate in environmental sustainability efforts by ensuring eco-friendly practices, such as waste reduction and energy optimisation. (S22)	Fosters new ways of thinking and working; seeks out opportunities to drive forward change and improvements for the business and industry. (B7)

	Factors governing food safety, ethics, integrity and sustainability within the global supply chain including, waste reduction and energy optimisation. (K21)		
Testing methods K17 S7 S21	Methods to collect, interpret and analyse technical data, using digital and mathematical techniques and presenting information, including Statistical Process Control (SPC). (K17)	Utilise tools to support the delivery of consistent quality of products. (S7) Identify, select and source relevant data and critically evaluate complex information to inform actions. (S21)	None

Professional interview underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Audits and performance K26 S5 S9 S10 S16 S18	Audit inspection and preparation requirements for quality and food safety systems. (K26)	Contribute to the development of internal audits to ensure compliance with legal, industry and customer standards. (S5) Drive external audits including preparation, auditor interaction and corrective actions. (S9) Manage complaint performance through the identification of trends and the design of corrective action programmes. (S10) Coordinate investigations into product non-conformances and implement incident management procedures. (S16) Contribute to monitoring supplier performance and intake controls using supplier risk management processes. (S18)	None
Food composition and food safety K2 K4 K8 K9 K19 K20 K24 S1 S4 S6 B1 B3	Food allergy and intolerance management, including labelling requirements and management systems for control	Contribute to the development, validation and implementation of the Hazard Analysis and Critical Control	Committed to the promotion of food safety, health and safety, environment and sustainable working practices. (B1)

	of allergens in manufacturing. (K2) Food microbiological, chemical and analytical testing techniques and principles including sampling and interpretation of results. (K4) Enhancing nutritional impact of food components, macro and micro-nutrients; preserving and enhancing nutritional values in processing, distribution and sale. (K8) How products can be developed and adapted to meet dietary requirements, habits and consumer trends. (K9) Characteristics of packaging systems taking account of food safety hazards and quality, including processing and filling operations to assure shelf life compliance. (K19) The processes from concept to launch for new and existing product and process	Point (HACCP) system. (S1) Contribute to creating and implementing product specifications to meet customer requirements, identifying the key risk factors in product design. (S4) Identify and promote tools to ensure a food safety culture within the organisation. (S6)	Responsive to change, demonstrates flexibility to changing working environment and demands. (B3)

	development, to include specification definition, scaling-up, hazard identification, technical feasibility and commercial viability. (K20) Properties of packaging materials that meet product preservation, shelf life and environmental sustainability goals. (K24)		
Processing K22 S8	Hygienic design and practices for factories and equipment, including Cleaning In Place (CIP). (K22)	Establish and monitor integrated cleaning and hygiene programmes. (S8)	None
Stakeholders K12 S14	Food supply chain management systems and practices to assure the safety, quality and legality of all raw materials, packaging, final product and services. (K12)	Collaborate with internal and external partners to deliver new or existing product development projects. (S14)	None
Testing systems K6 K14 K18 K25 S3	Food analysis including fat, moisture, carbohydrate, protein, energy, density and melting point. (K6) Food quality management systems such as total quality	Interpret laboratory results; identify and analyse trends to diagnose or anticipate issues; define and implement action plans. (S3)	None

	management. Including, organoleptic quality assessment panels and various weight control systems. (K14) Identification and selection of appropriate laboratory test methods, the interpretation of results and the appropriate actions to take. (K18) Methods used to measure appearance, colour, aroma, taste, texture and overall sensory characteristics of food products. (K25)		