

**Advanced Dairy Technologist
Apprenticeship
End-point Assessment Plan**

Advanced Dairy Technologist Apprenticeship

Summary of Apprenticeship

The Advanced Dairy Technologist apprenticeship is an integrated programme of knowledge and skills acquisition, developed alongside core behaviours. The award of the apprenticeship certificate will signify recognition of competence in the role. Apprentices will typically spend 36 months working towards the apprenticeship standard, with the end-point assessment completed in the final twelve weeks. Performance in the end-point assessment will determine the apprenticeship grade of fail, pass, merit or distinction.

There are no pre-requisite entry requirements for this programme. Apprentices without English and maths at level 2 must achieve level 2 English and maths prior to taking their end-point assessment.

Prior to the end-point assessment, apprentices will undertake a structured period of on-programme training to develop the knowledge, skills and behaviours required of the standard. Achievement of a Foundation Degree in Dairy Technology is a pre-requisite to taking the end-point assessment and this is normally delivered in a highly structured way. Typically apprentices will undergo 41 weeks of residential training across their 3 year learning period. The standard requires the apprentice to access sophisticated dairy technology and machinery that replicates the workings of dairy processing facilities during their qualification training.

The structured period of on-programme training may include additional non-mandated qualifications or bespoke training required to develop the knowledge, skills and behaviours required of the standard, depending on individual requirements. Delivery of all training up to the end-point will be considered as being on-programme.

End-point assessment will be conducted by an Independent Assessment Organisation (IAO). IAOs are required to be on the Skills Funding Agency's (SFA) Register of Apprentice Assessment Organisations (RoAAO) for this standard.

The end-point assessment will include two distinct components:

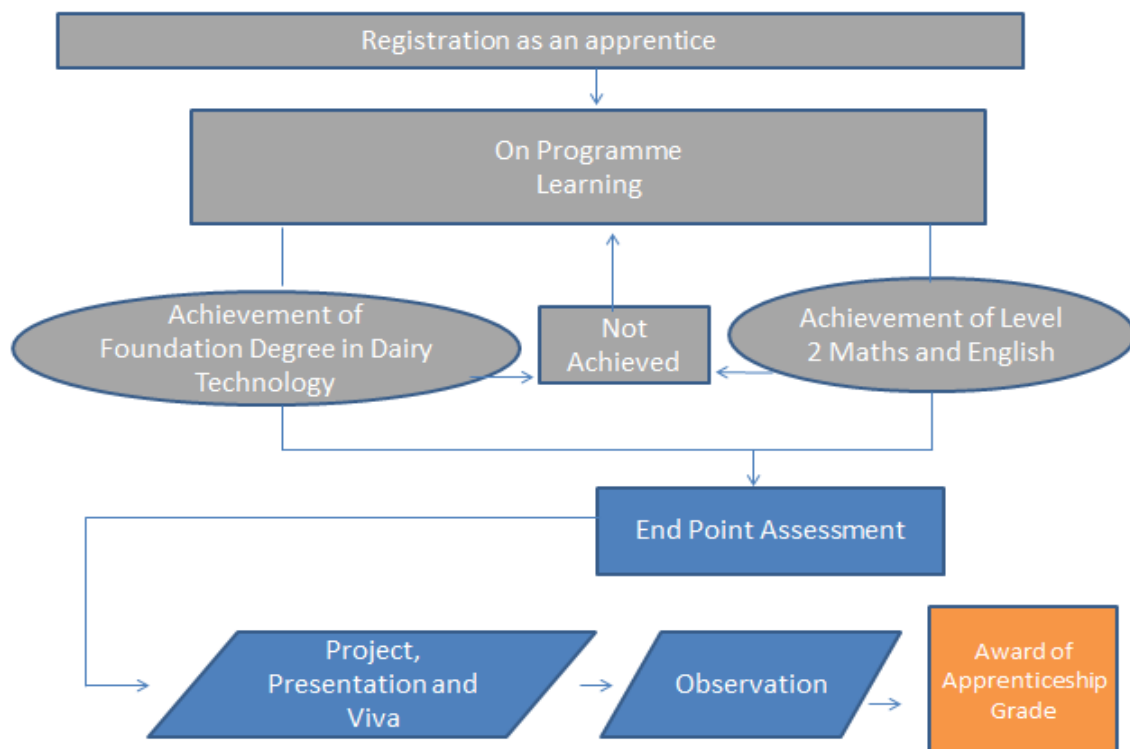
1. A **work based project, presentation and VIVA/Interview** that allows the apprentice to demonstrate knowledge, skills and behaviours and delivers value back to the business
2. **An observation** to assess both the apprentice's ability to work as part of a team and to produce a range of products to a satisfactory standard.

A pass in the end-point assessment will demonstrate that the apprentice can apply the knowledge, skills and behaviours required of the standard in an integrated way and will satisfy the requirements for the award of an apprenticeship certificate. Apprentices achieving a merit or distinction will be demonstrating performance above the requirements of the standard.

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Summary of the End-point Assessment Methods

Assessment Method	Summary of Assessment	Grading	Contribution to apprenticeship grade	Format
Work based Project, Presentation and VIVA/Interview	<i>Apprentices will undertake a work based project within a three month time period. They will prepare a formal report for their project and present it to the assessment panel. This will be followed by a short formal interview (VIVA) to explore the apprentice's behaviours.</i>	Pass Merit Distinction	80%	Written report (Max 5,000 words) submitted in advance to the IAO. Presentation maximum duration 45 minutes; apprentice selects format for their presentation. Interview is for maximum 30 minutes.
Observation	<i>An observed set of activities undertaken as individuals and as a team to produce a range of manufactured products in a dairy environment.</i>	Pass Merit Distinction	20%	Observations will last a maximum of 5 hours and be in groups of no more than 6.



End-point Assessment Gateway

Before an apprentice undertakes the end-point assessment, they must have completed and achieved a pass or higher in the Foundation Degree in Dairy Technology and passed level 2 English and maths.

Judgement on whether the apprentice is ready for the end-point assessment is made by the employer who may wish to take advice from the learning provider.

End-point Assessment Components

Component 1 – The Work based Project, Presentation and VIVA/Interview

The apprentice will undertake a work based project over a maximum period of 3 months.

The project will involve the apprentice identifying and addressing a product, process or business improvement issue that, once addressed, will deliver benefit back to the business. The selected project must be comprehensive providing scope for the apprentice to show the full range of their knowledge, skills and behaviours as outlined in Appendix 1.

The project is expected to draw together the learning from across the standard and as a Higher Level Apprenticeship, the learner is expected to undertake this project demonstrating that they meet assessment criteria in line with Foundation degree level standards. These include the ability to select and apply knowledge and principles to the

solution of well-defined problems, manipulating and interpreting complex sets of data, assessing their reliability and presenting them in an appropriate format.

Specifically any project should cover the 10 core areas in the standard, demonstrating:

- 1. An understanding of the dairy industry** - The impact of the solution on the trading environment and commercial context of the of the company within the dairy industry
- 2. Understanding of dairy chemistry, material and product quality** – Implications on product/s as a result of the proposed activity from a scientific chemical perspective and in terms of finished product quality
- 3. Knowledge and ability to analyse and test products** - Results and analysis of testing undertaken as part of the developing the solution
- 4. Understanding of and ability to use micro-biological concepts and techniques** – Explanation of the impact of the solutions from a microbiological perspective
- 5. Knowledge of good dairy design** - Implications of the solution on how the product/process solution will alter/impact the dairy design
- 6. Dairy Process Operations and workplace practices** - Key processes involved are outlined and ‘Good Manufacturing Procedures’ is evidenced. Trials are evidenced that substantiate the key findings
- 7. Continuous Improvement** – The principles of Continuous Improvement and key tools and techniques are used effectively and evidenced
- 8. Knowledge and skills in Product Development and Manufacture** - Any product impact is fully identified and costed or new product developments are accurately costed
- 9. Food and Dairy Safety and compliance** - Full consideration of the legislative impacts of any solution are identified
- 10. Sustainability & Environmental Impact** - An environmental impact assessment is undertaken.

All project topics must be agreed in advance with the Independent Assessment Organisation, to ensure that apprentices are not disadvantaged by too narrow a scope and that their project is potentially able to demonstrate all aspects of the standard required.

Once the project has been confirmed the apprentice is required to submit a project work plan, to the end assessment organisation as good planning and adherence to the plan is tested as part of the assessment.

The following are examples of project areas.

Project Area	Focus and Coverage
<ul style="list-style-type: none"> • Improved efficiency in the production environment through better utilisation of assets. 	<p>The key focus of this type of project is the design and utilisation of equipment or manufacturing processes used in dairy companies. The project should evidence an improvement or new approach considered and trialled practically in the</p>

	business. The scope would need to ensure that consideration is given to the impact on product quality, new product development, legislative aspects and all 10 of the identified topics.
<ul style="list-style-type: none"> • A cost saving project such as reducing the use of chemicals or cleaning products. 	The key focus of this type of project is a Continuous Improvement project. The scope would need to ensure that consideration is given to the impact on processing, product quality, new product development, legislative aspects and all 10 of the identified topics.
<ul style="list-style-type: none"> • A competitive advantage such as developing a new product or improving an existing one for example to extend shelf life. 	The key focus of this project is the development or redevelopment of a product. Whilst quality, cost and safety will be the core areas, the project needs to ensure all 10 areas are covered.

The project, presentation and VIVA will be assessed by an assessment panel – see below. The project report must be submitted to the IAO two weeks prior to the agreed panel assessment date. It should be a maximum of 5,000 words submitted as a pdf document.

The apprentice will be required to present their project to the assessment panel. The presentation maximum duration is 45 minutes, apprentices are free to select the format for the presentation. It should focus on the approach and conclusions of their work.

The formal presentation will then be followed immediately with a VIVA/Interview.

Each apprentice will be formally interviewed by the assessment panel regarding their project with the intention that this draws out the following;

- What has the candidate learned from the process and experience of undertaking the project about themselves
- How would they develop the themes and learnings in the future to maximise benefit for the business
- How do they handle challenge and consider the applicability of their project to the wider dairy industry.

The VIVA will be conducted in a 'controlled environment' i.e. a quiet room, away from the normal place of work. The interview will typically last 45 minutes and must be no more than 60 minutes duration.

The independent lead assessor will select and ask six questions from a bank of standardised competency based questions to ensure a consistent approach is adopted, as well as ensuring the required areas of the standard are appropriately covered.

The project, presentation and VIVA/Interview will be collectively assessed against the knowledge, skills and behaviours as outlined in Appendix 1.

Component 2 – The Observation

The observation is designed to assess the apprentice's ability to work in a team in a production environment to produce dairy products.

Operating in small groups (maximum 6) each apprentice will be provided with a task to undertake and will be expected to demonstrate their team working skills. Tasks and group leaders will be rotated such that each candidate is given a period to lead their group but also to contribute to the group working. Where there are insufficient apprentices requiring assessment, other employees or learners can act in the role. Apprentices will need to demonstrate their knowledge of manufacturing dairy products in order to ensure that the necessary procedures are covered.

The tasks provided will be around the operation of the dairy equipment and will take place either in the workplace or in a simulated work environment that replicates the practices and procedures of a real dairy. The IAO will be responsible for ensuring that there is a suitable location. In the event that a simulated work environment is used they will need to ensure that there is a resource available and raw materials such that the apprentices can utilise these for commencing production. They will need to ensure that the facility used is fully operational and have expertise on hand. Should a workplace be being utilised for assessment, the IAO must ensure that the activity does not interfere with the ongoing production of product. IAO assessors must be familiar with the stringent requirements of entering and working in a food production environment.

The assessment panel will observe each apprentice as they undertake the tasks, allocate work activities and monitor their colleagues. They may ask questions to aid their understanding of apprentice's activities and approach.

The observation will be assessed against the knowledge, skills and behaviours as outlined in Appendix 1.

End-point Assessment – Assessment Panel

Both assessment components will be marked by an assessment panel, who will combine the results to determine the apprenticeship grade, following the grading approach outlined below and detailed in appendix 1.

IAO will appoint assessment panels, which must consist of:

- an independent lead technical assessor, who is a member of the Society of Dairy Technology
- an independent technical assessor
- an independent third assessor, who is not required to have technical dairy expertise but must have HR or competency assessment capability.

Assessors must be independent, that is have no connection with the apprentice or their employer or training provider.

Each assessor will mark each end-point assessment component separately before coming together to agree the score for each component. In the event of a disagreement the casting vote will be solely with the lead assessor.

The independent lead assessor will be responsible for leading the assessment process and ensuring assessment is conducted and documented in line with IAO procedures.

Assessors must have the qualification and experience as detailed below:

	Independent Third Assessor	Independent Technical Assessor	Independent Lead Technical Assessor
A minimum 5 years' relevant industry experience within a technical function in dairy processing		√	√
A minimum of 3 years working in an HR or training role in the food industry	√		
Food Safety Level 4 qualification		√	√
HACCP Level 4 qualification		√	√
Dairy Technical Degree			√
Experience of competency based assessing	√		
Member of the Society of Dairy Technologists			√

Apprenticeship Grading

Apprentices will be awarded a pass, merit, distinction or fail. The apprenticeship grade will be based on the outcomes of the two end-point assessment components: 1. work based project, presentation and VIVA/Interview and 2. observation.

The project, presentation and VIVA/Interview accounts for 80% of the score and the observation 20%.

To achieve a pass or higher grade the apprentice must achieve a minimum of a pass in both end-point assessment components. A pass means that the apprentice has demonstrated competence in each element assessed by that component. Passing both components demonstrates that the apprentice has fully met the standard. The pass mark for the project, presentation and VIVA is 25/25. The pass mark for the observation is 7/7. A score of less than 32 will result in fail.

The combined score for the two assessment components will determine if a higher grade is awarded. A grade above pass means the apprentice has demonstrated a level of performance over and above the standard.

Grading boundaries have been set as follows:

Apprenticeship Grading (further details provided in appendix 1)
Fail -: pass mark not achieved i.e. not demonstrated full competence against the standard
Pass : achieved the pass score of 32 by passing both components, full competence against the standard demonstrated
Merit : score between 81 and 124, performance above the standard
Distinction : score between 125 and 170, significant performance above the standard

Resits/retakes

Where an apprentice fails one end-point assessment component it may be retaken within a 3 month period. Where an end-point assessment component has to be re-taken, the apprentice cannot be awarded a distinction for the apprenticeship. It is expected that a period of further learning will need to be undertaken if the apprentice has to re-take an end-point assessment component. Resits/retakes will not be allowed to improve the apprenticeship grade.

Professional Recognition

Founded in 1943, the Society of Dairy Technology (SDT) is at the forefront of the dairy industry and has supported professional development for over 50 years. The Society is the recognised professional body and is bringing about a professionalization agenda with a move to define and recognise professional competency at all levels. On completion of the programme apprentices can apply and be recognised as full members of the Society.

End-point Assessment Organisations

End-point assessment will be conducted by an Independent Assessment Organisation (IAO). IAOs are required to be on the Skills Funding Agency's (SFA) Register of Apprentice Assessment Organisations (RoAAO) for this standard.

IAO will be responsible for:

- Appointing an assessment panel, in line with requirements stated in this plan

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- Appointing staff who are able to administer the requirements of this plan
- Appointing staff who can undertake internal quality assurance
- Operate internal quality assurance in line with the requirements stated in this plan – see below
- Design and develop end-point assessment tools, documentation and processes
- Organising the end-point assessment
- Checking on-programme pre-requisite requirements have been achieved
- Reviewing and agreeing project outline proposals
- Secure recording and storage of all assessment decisions
- Administration of certification process

Internal Quality Assurance

IOA must operate internal quality assurance to moderate and standardise assessment decisions.

The IAO must monitor the assessment process to ensure consistency of operation. A minimum of 10% of each assessment panel's assessment decisions must be moderated, higher where issues are identified.

Assessors must attend standardisation events prior to undertaking assessment duties and at least annually thereafter, to ensure consistency in the practice of marking. IAO should ensure standardisation events for assessors are held at least every six months. IAO must train independent assessors in the practice of observational assessment and interview discussions.

External Quality Assurance

External Quality Assurance (EQA) for this apprenticeship standard will be the responsibility of an employer group – the Dairy Industry Skills Partnership Apprenticeship Board. EQA will be undertaken on a non-profit making basis.

Membership to the Food and Drink Industry (Dairy) Apprenticeship Board is open to all types and sizes of businesses, including representation from small and medium enterprise and organisations that are new to the apprenticeship process. Nominees will be judged on their experience, knowledge, qualifications and commitment to ensuring that apprentices consistently achieve the apprenticeship end-point assessment.

The Board members:

- Represent the views of their business and industry networks
- Are subject to re-election after a period of 2 years (requiring the support of two organisations)
- Work openly, challenge, innovate and drive the industry's apprenticeship commitment to quality
- Contribute their specific experience and expertise

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- Actively communicate and engage other employers and partners to achieve high quality apprenticeships

In relation to end-point assessment EQA, the responsibilities of the Board include:

- A full knowledge and understanding of the:
 - Content of the Advanced Dairy Technology Assessment Plan
 - External quality assurance arrangements and methodology
 - Infrastructure and processes used to manage and operate external quality assurance
- Agreeing measures to benchmark external quality assurance results against set criteria
- Appointing individuals to conduct external quality assurance activity
- Overseeing external quality assurance results based on the provision of quarterly reports and agreeing corrective action as necessary
- Working collaboratively to identify and address matters relating to external quality assurance processes and results
- Reviewing evaluation results to ensure the end-point assessment remains fit for purpose and advising on matters of performance which may impact on external quality assurance
- Reviewing and addressing complaints against the end-point assessment and external quality assurance results

External quality assurance visits will be completed regularly on each assessment organisation, and may include more than one visit/activity where an assessment organisation operates in more than one region, or uses multiple assessment centres.

External quality assurance will comprise a range of activities including:

- Ensuring consistency of assessment tools (materials and their consistent application)
- Competence of staff
- Internal quality assurance
- Reporting and management of information

Each assessment organisation will be sampled and graded by the external quality assurance activities. It is expected that EQA activity will typically occur every six months, but this frequency may be adjusted in accordance with the volume of apprentices completing end-point assessment and the past performance of the assessment organisation.

Typically an external quality assurance visit will include:

- Meetings between external quality assurance representatives and apprentices, assessors and internal quality assurance staff
- A desk review of assessment documentation, covering each assessment activity and usually covering the range of results, validating the internal quality assurance activity

- Review of records relating to the planning of internal quality assurance and feedback from end-point assessments
- Review of records relating to the knowledge test administration
- Review of competence and CPD for assessment and internal quality assurance staff
- Review evidence of satisfaction measures for apprentices and employers
- Review of records relating to appeals and grievances
- External quality assurance activity will normally include an opportunity to observe part of a practical assessment, observations discussion or conduct of an examination.

External quality assurance activities will result in a report which will be supplied to the independent assessment organisation, within 15 working days, including recommendations, actions and a provisional risk grading. The assessment organisation will be given a further 15 working days to provide any feedback, as necessary, after which the final edition of the report, including final grade, will be sent to them.

Subsequent external quality assurance activity will be appropriate to the findings, recommendations and actions and may include an interim EQA activity prior to the next full visit.

All assessment organisations listed on the SFA's RoAAO for this standard must comply the external quality assurance process in this plan.

Implementation

This apprenticeship will be available from Autumn 2016. It is anticipated that there will be approximately 40-60 starts per year.

The Foundation Degree in Dairy Technology has been designed by industry and there is a training provider already delivering it. It has been piloted through the Employer Ownership of Skills (round 1) programme highly successfully.

End-point assessment organisations will need to seek approval to offer end-point assessment for this standard and develop the assessment tools, documentation and processes.

The dairy industry has worked extensively together over the past 8 years and so the implementation of the external quality assurance mechanisms is anticipated to be straightforward.

The end-point assessment will cost no more than 20% of the overall apprenticeship.

Appendix 1 – Detailed assessment plan and grading overview

Projects, whilst focussing on a specific area will need to have evidenced that all 12 aspects as outlined below are covered.

ASSESSMENT COMPONENT 1 – THE PROJECT, PRESENTATION AND VIVA/INTERVIEW								
Project element	Knowledge	Skills	Behaviours	Minimum Acceptable achievement (1 point)	Good Achievement (3 points)	Outstanding Achievement (5 points)	Weighting	Max. Potential
SECTION A – Project Content								
1.An understanding of & pride in the dairy industry	The dairy industry including its relationship to world markets, including trading of dairy commodities <i>The primary production stages of milk and supply chain</i>		1.Passion and ownership of work. Demonstrates a passion for the dairy industry.	Demonstrates specific and accurate understanding of commercial relationships. Refers positively about the dairy industry.	Demonstrates broad understanding of the current relationships and factors affecting the industry. Has a clear ability to promote the industry	Demonstrates an understanding of wide breadth of commercial relationships & interrelationship of factors and impact on the future of the industry. Articulates these in a positive and engaging way	2	10
2.Understanding of dairy chemistry, material and product quality	The primary production stages of milk and what affects the composition of raw milk and final dairy products. Fundamental principles of milk chemistry and milk microbiology and the changes, interactions and manipulation			Project evidences the impact of the activity on the structure and functionality of milk and the resultant impact on product quality and safety.	Project evidences the impact of the activity on the structure and functionality of milk and the resultant impact on product quality and safety and outlines how negative impacts can be mitigated.	Project evidences the impact of the activity on the structure and functionality of milk and the resultant impact on product quality and safety and outlines how negative impacts can be mitigated. It describes the upstream and downstream impacts of the activity (deteriorative actions) and analyses key implications for product	1	5

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	during processing that impact on product properties, quality and safety.					integrity		
3. Knowledge and ability to Analyse and test products	<p>Test methods and applications, product quality testing, sensory evaluation, in-line and off-line.</p> <p>Good Laboratory Practices as applied within a dairy organisation for manufacture of all common dairy products</p>	<p>Test and analyse products (chemical, microbial, physical). Interpret results and process data to make adjustments to process parameters in order to achieve the desired dairy product.</p>		<p>Appropriate test methods are used, and at the appropriate stage of production; results are accurately interpreted and principles of GLP are followed. Conclusions and recommendations are logical</p>	<p>Appropriate test methods are used, and at the appropriate stage of production; results are accurately interpreted and principles of GLP are followed. Conclusions and recommendations are logical and tested to verify assumptions.</p>	<p>Appropriate test methods are used, and at the appropriate stage of production; results are accurately interpreted and principles of GLP are followed. Conclusions and recommendations are logical and tested to verify assumptions. Alternative approaches are examined and outlined.</p>	2	10
4. Knowledge of and ability to use micro-biological concepts and techniques	<p>Microbiology related to dairy products.</p> <p>The principles and practices of sampling, testing and microbiological laboratory investigations and problem solving including the classification of micro-organisms in dairy production</p>	<p>Demonstrate understanding of microbiological concepts to the manufacture of dairy products</p>		<p>Project outlines which microbiological concepts are relevant to the solution and demonstrates investigation through analyses of results and investigation</p>	<p>Project outlines and prioritises the microbiological concepts relevant to the solution and demonstrates investigation through analyses of results and investigation. Results are analysed in terms of impacts on quality and safety</p>	<p>Project outlines and prioritises the microbiological concepts relevant to the solution and demonstrates investigation through analyses of results and investigation. Results are analysed in terms of impacts on quality and safety. Recommendations are made as to potential mitigations and/or risks .</p>	2	10

5. Knowledge of good dairy design	<p>Dairy process environment, hygiene, design and control.</p> <p>Principles of dairy process design, engineering and level of automation and its impact on plant performance</p>			Project articulates the implications of automation on the activity and how good dairy process design can deliver improvements.	Project articulates the implications of automation on the activity and how good dairy process design can deliver improvements. It presents options considered and implications on cost, and/or quality.	Project articulates the implications of automation on the activity and how good dairy process design can deliver improvements. It presents options considered and implications on cost, and/or quality. The implications on overall performance are analysed and recommendations made.	1	5
6. Dairy Process Operations and workplace practices	<p>The range of Dairy unit operations, such as filtration, pasteurisation, UHT, fermented products, evaporation, spray drying, cooling, CIP/COP (Cleaning in/out of place) and their impacts on the product quality, functionality and product shelf life</p> <p>The principles of process control and automation, including the use of statistical process control across a range of applications. Existing and evolving</p>	Operate and control both manual and automated dairy unit operations including cleaning and effluent management, from milk reception, manufacture and packing of the product.		The project outlines the processing operations involved explaining how each operation contributes. Trial evidence outlines the impact identified through actual trials undertaken by the candidate. All GMP principles are outlined and current automation and plc applications identified.	The project demonstrates the breadth of the processing operations explaining how each operation contributes. Key process operations are investigated in detail. Trial evidence outlines the impact identified through actual trials undertaken by the candidate and provides data to substantiate assumptions. Relevant GMP principles are outlined and their relative importance analysed. Current and emerging automation considered.	The project demonstrates the breadth of the processing operations explaining how each operation contributes. Key process operations are investigated in detail. Trial evidence outlines the impact identified through actual trials undertaken by the candidate and provides data to substantiate assumptions. Product/business benefits are clearly identified and quantified. Relevant GMP principles are outlined and their relative importance analysed. Current and emerging automation considered.	2	10

	automation within the dairy industry Good Manufacturing Practice as applied within a dairy organisation for manufacture of all common dairy products							
7. Continuous Improvement	Lean and agile supply chains in the dairy industry, factors influencing resilience, flexibility, consistency, financial implications and culture. The range of CI approaches commonly used.	Apply CI techniques to solve operational problems, to deliver improvement to products, optimise ways of working, improve efficiency and reduce waste.	2. Proactively engages in the delivery of quality standards and continuous improvement 6. Problem solving and innovating - works proactively to identify and ensure root causes of problems are solved, showing a tenacious approach and a curiosity to foster new ways of thinking and working	Identifies and selects the appropriate tools and utilises them to identify improvements to product or processes involved. Shows demonstrable improvements in one or more area.	Demonstrates an in depth understanding of the value stream. Identifies and selects the appropriate tools and utilises them to identify improvements to product or processes involved. Shows demonstrable improvements across a range of areas	Demonstrates an in depth understanding of the value stream. Identifies and selects the appropriate tools and utilises them to identify improvements to product or processes involved. Shows demonstrable improvements across a range of areas with quantifiable benefits. Recommends how to embed the new approaches.	4	20
8. Food and Dairy Safety and compliance	Legislation and guidelines applicable to manufacture of dairy products covering risk, health and food safety, health and safety, enabling	Comply with legislation, regulations and organisational requirements for health and safety, food safety and hygiene and develop Critical Control Point plans for Hazard	1. Passion and ownership of work. Demonstrates a passion for the dairy industry, takes responsibility, is proactive,	Shows a good knowledge of the key legislative requirements and how they relate to their business. Project includes analysis of the legislative	Shows a thorough knowledge of the key legislative requirements and how they relate to their business. Project includes analysis of the legislative requirements and provides a HACCP plan	Shows a thorough knowledge of the key legislative requirements and how they relate to their business. Proposes improved processes and approaches. Project includes analysis of the legislative	3	15

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	development of Level 3 Critical Control Point plans for Hazard Analysis, Threat Assessment and Vulnerability Assessment (HACCP, TACCP and VACCP)	Analysis, Threat Assessment and Vulnerability Assessment (HACCP, TACCP and VACCP)	demonstrates initiative, plans work, works autonomously within own sphere of responsibility and promotes a culture of safe working practices	requirements and provides a HACCP plan and TACCP and VACCP considerations.	and TACCP and VACCP considerations. Safety is shown throughout project to be a key consideration and given prominence .	requirements and provides a HACCP plan and TACCP and VACCP considerations. Safety is shown throughout project to be a key consideration and given prominence wth proposals for wider promotion of safer practices .		
9. Sustainability & Environmental Impact	The sustainability, environmental and legislative considerations of the dairy supply chain including management of waste streams and effluent treatment	Undertake environmental audit and provide recommendations		Impact of the activity on sustainability and the environment is recognised and noted including adherence to legislative and voluntary codes of conduct .	Impact of the activity on sustainability and the environment is inherent to and a significant focus of the project including adherence to legislative and voluntary codes of conduct .	Impact of the activity on sustainability and the environment is inherent to and a significant focus of the project including adherence to legislative and voluntary codes of conduct . Thorough analysis and implications on the short and medium term impacts are explicit	2	10

	Knowledge	Skills	Behaviours	Minimum Acceptable achievement (1 point)	Good Achievement (3 points)	Outstanding Achievement (5 points)	Weighting	
SECTION B. Project Planning, presentation and approach								
Work plan is submitted			<p>1. Passion <i>and ownership of work.</i> Demonstrates a passion for the dairy industry, <i>takes responsibility, is proactive, demonstrates initiative, plans work, works autonomously</i></p> <p>3. <i>Pride in work: integrity, setting standards, aims for excellence and good time management</i></p>	<p>Presentation is well planned and completed in time.</p> <p>Candidate prepares an initial work plan that is thorough and well-structured and project has been broadly delivered against the plan.</p> <p>Work plan is submitted on time</p> <p>Initial work plan has realistic deadlines and identifies resources required</p> <p>Standard of presentation of plan is good with minimal grammatical errors and is presented in an engaging way.</p> <p>Presentation time may over/under run.</p>	<p>Presentation is well planned and completed in time.</p> <p>Candidate prepares an initial work plan that is thorough and well-structured project is delivered in line with the work plan .</p> <p>Work plan is submitted on time</p> <p>Initial work plan has realistic deadlines and identifies resources required and these are secured in line with approach.</p> <p>Standard of presentation of plan is high with no grammatical errors and is presented in a highly engaging way. Presentation timing is broadly adhered to</p>	<p>Presentation is well planned and completed in time.</p> <p>Candidate prepares an initial work plan that is thorough and well-structured and project is delivered in line with the work plan .</p> <p>Work plan is submitted on time</p> <p>Initial work plan has realistic deadlines and identifies resources required and these are secured in line with approach.</p> <p>Standard of presentation of plan is high with no grammatical errors and is presented in a highly engaging way. pride taken in all aspects from layout to presentation. Presentation timing is adhered to</p>	2	10
Approach to and delivery of presentation								

THE VIVA/INTERVIEW									
	Knowledge	Skills	Behaviours	Minimum Acceptable achievement (1.5 point)	Good Achievement (4.5 points)	Outstanding Achievement (7.5 points)	Weighting		
			<p>4. Self-development, acts in alignment with the business vision and values, <i>applies Company/industry perspective, seeks learning, drives the development of self, acts as an ambassador both internally and externally</i></p> <p>7. Responsiveness to change, flexibility to changing working environment and demands</p>	<p>Responses to questions indicate some evidence of learning approach-.</p> <p>Is able to articulate the business benefits</p> <p>Candidate can demonstrate examples of acting as an ambassador.</p> <p>Can articulate preferred learning approaches</p> <p>When provided with some alternative scenarios relating to their project can quickly identify potential issues with prompting. Can propose an alternative .</p>	<p>Responses to questions indicate learning approach- able to articulate areas of own performance.</p> <p>Is able to articulate the business benefits and context clearly.</p> <p>Candidate can demonstrate examples of acting as an ambassador and appears credible.</p> <p>Understands own learning style</p> <p>When provided with some alternative scenarios relating to their project can quickly identify core issues and propose alternative solutions</p>	<p>Responses to questions indicate strong learning approach- able to critically assess own performance and self .</p> <p>Is able to articulate the business benefits and context clearly and consider wider industry benefits from project</p> <p>Candidate can demonstrate examples of acting as an ambassador and appears credible as a Dairy ambassador.</p> <p>Understands own and others work styles and challenges associated.</p> <p>When provided with some alternative scenarios relating to their project can quickly identify core issues and propose alternative solutions identifying and selecting the most</p>	4	30	

						appropriate.		
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Observation ASSESSMENT COMPONENT 2 – OBSERVATION									
Elements	Knowledge	Skills	Behaviours	Acceptable achievement (1 point)	Good Achievement (3 points)	Outstanding Achievement (5 points)	Weighting		
10. Knowledge and skills in Product Development and Manufacture	Key steps in new product development of dairy products and manufacturing processes	Manufacture graded milk and creams, fermented products and starter cultures, butter, cheese (by hand and in automated processes), tailored milks, milk and whey powders and ice cream. Manage the maturation, ripening and texture development in cheese Project manage dairy operational changes, product trials and plant commissioning. Develop new dairy products and processes in a cost effective and compliant manner	5. Work effectively in a team, respects and drives good relationships with others, works collaboratively, contributes ideas, challenges appropriately and adapts style.	Is able to demonstrate a methodical approach Manufactures in line with Standard operating procedures Operates effectively in identified team role	Plans well. Is able to demonstrate a methodical approach Manufactures in line with standard operating procedures and seeks to minimise waste Communicates and operates effectively in their team role.	Plans well. Is able to demonstrate a methodical approach. Manufactures in line with standard operating procedures ,seeks to minimise waste and develops added value activity either via price or process Communicates and operates effectively in their team role.	7	35	
Total Scores & Ranges				Minimum 32 Maximum 80	Minimum 81 Maximum 125	Minimum 126 Maximum170		170	