



Purpose Statement

WJEC Level 3 Alternative Academic Qualification in Food Science and Nutrition
(Extended Certificate)

Qualification number	TBC	QiW number	TBC
Type of qualification:	Alternative Academic Qualification		

Who is this qualification for?

The WJEC Level 3 Alternative Academic Qualification in Food Science and Nutrition (Extended Certificate) is designed for 16–18-year-olds who are passionate about food science, nutrition and health, and who are considering pursuing graduate careers in these fields. If you're interested in understanding the science behind food production, dietary health and how nutrition impacts well-being, this qualification is a great fit for you. It blends academic knowledge with practical application, helping you develop valuable real-world skills while building a solid academic foundation.

This qualification is especially beneficial if you're looking to continue your education at university and pursue careers in areas such as dietetics, food science, nutrition consultancy, public health or food product development. It provides in-depth knowledge on key topics like food safety, the role of nutrients in the body and how to create innovative food products. By focusing on applied learning, it equips you with the research, analytical, and practical skills needed for university and beyond.

If you're interested in tackling real-world challenges, such as fighting obesity, improving food sustainability or addressing food security, this qualification will give you a strong foundation for a future in public health initiatives, food policy development or the research and development sectors within the food industry. The curriculum encourages creativity, critical thinking and problem-solving—skills that are essential in competitive and evolving industries.

Upon completing this qualification, you will be able to:

- Demonstrate factual, procedural, and theoretical knowledge in food science and nutrition to complete tasks and solve problems that may be complex and non-routine.
- Interpret and evaluate relevant information and ideas.
- Understand the nature of the food science and nutrition field.
- Recognise different perspectives within the field and apply appropriate cognitive and practical skills, methods and procedures to address well-defined, but complex, problems.

- Use appropriate investigations to inform your actions.
- Review and evaluate the effectiveness of methods and actions.

What will you study as part of this qualification and how might this prepare you for further study?

You will complete four units: three mandatory and one optional, over the two years.

Unit 1: Nutritional Needs Across the Life Stages

This unit will provide you with an in-depth understanding of the properties and functions of nutrients, the impact of food production on nutritional value and how dietary requirements vary across different life stages. These topics are directly relevant to human nutrition and food science degrees.

Topic headings within the unit:

- Understand properties of nutrients
- Understand the relationship between nutrients and the human body
- Be able to plan nutritional requirements

You will be assessed through a written examination.

Unit 2: Developing Practical Food Production Skills

You will apply theoretical knowledge in a hands-on environment, learning advanced food preparation techniques while considering nutritional value and dietary needs. These skills mirror practical elements found in undergraduate laboratory-based / practical food science modules.

Topic headings within the unit:

- Factors affecting food choice
- Planning, preparation and cooking techniques
- Evaluating dishes for specific target groups

You will be assessed on your ability to plan, prepare, cook and present a meal through recipe development and testing. You will be provided with a target audience, and your dishes must meet the needs of the target audience and showcase a range of skills and techniques.

Unit 3: Principles of Food Hygiene and Food Safety

You will gain essential knowledge in food safety, microbiology and regulatory requirements. This unit is particularly relevant if you intend to pursue a career involving food technology, quality control and food safety management as it introduces fundamental concepts related to foodborne illnesses, hazard analysis and industry standards. These topics are widely covered in food science and public health degrees.

Topic headings within the unit:

- Understand how micro-organisms affect food safety
- Understand how food can cause ill health.
- Understand how food safety is managed in different situations.

You will be assessed through a written examination.

Unit 4: Experimenting to Solve Food Production Problems (optional)

You will develop research and investigative skills, mirroring scientific methodologies used in university-level courses. You will learn how to formulate hypotheses, design and conduct experiments and analyse results.

Topic headings within the unit:

- Understand the scientific properties of food
- Solving food production problems
- Scientifically investigate changes to food

For your assessment, you will be required to plan and investigate solutions to a given scenario

Unit 5: Current Issues in Food Science and Nutrition (optional)

This unit encourages critical thinking and research into contemporary food science challenges, preparing students for research-focused university programmes.

Topic headings within the unit:

- Carry out research into a contemporary issue in food science and nutrition
- The use of research in food science and nutrition
- Evaluate own research into current issues in relation to food science and nutrition

For your assessment, you will undertake research into a contemporary issue in food science and nutrition.

What skills will you develop as part of this qualification and how might these be of use and value to you in your further studies?

You will develop a range of essential skills that will be valuable for higher education and future professional roles, including:

- Independent learning and research: Through self-directed study and the completion of research projects, you will develop the ability to manage your time effectively, conduct thorough research and apply critical thinking. These skills are vital for success in university assignments and projects, where you must demonstrate initiative and the ability to work autonomously.
- Problem-solving and analytical skills: You will enhance your critical thinking abilities by engaging in problem-based learning, analysing case studies, and solving complex food production and nutrition-related challenges. These skills will be invaluable in higher education, where you are required to tackle multifaceted problems and make evidence-based decisions.
- Practical laboratory and food preparation skills: Through hands-on experience in food preparation and laboratory work, you will develop essential skills in safety procedures, equipment handling and experimental techniques. These practical skills are directly transferable to university labs and industry settings, where real-world application of these techniques is often required.
- Data analysis and interpretation: You will learn to collect, analyse and interpret scientific data through practical exercises and research projects. This ability to present data clearly and draw conclusions will be critical in higher education, where research plays a central role, as well as in professional careers where data-driven decision-making is essential.
- Communication and teamwork: By participating in group projects, presentations, and academic writing tasks, you will develop strong communication skills, both verbal and written. The ability to collaborate and communicate effectively is crucial for success in higher education, where group work and the presentation of research findings are common, and in professional environments that require teamwork and clear communication.
- Adaptability and innovation: Through exposure to emerging food technologies, sustainability practices and evolving dietary trends, you will cultivate adaptability and creative problem-solving. These skills will support your ability to innovate and remain responsive to changes in the food industry, making you well-equipped to meet the demands of further study or careers in food science and related fields.

Which subjects will complement this course?

This qualification would be complemented by subjects such as:

- Biology. A strong foundation in biology enhances the study of food science and nutrition by providing essential knowledge of human physiology, digestion and metabolism. Understanding how the body processes nutrients, the role of microbiology in food safety and the biological impact of diet-related diseases complements the scientific aspects of food and health.
- Business. The food industry is both a scientific and commercial field, and business studies complements food science by providing insights into product development, marketing and supply chain management. This combination is ideal for students interested in entrepreneurship, food innovation or working in the food industry.

- **Chemistry.** Chemistry and food science go hand in hand, as both involve studying the composition of substances and their interactions. Knowledge of chemical reactions helps explain food preservation, nutrient breakdown and the impact of cooking processes on food structure. This complements food science by enabling a deeper understanding of food quality, safety and product development.
- **Health and Social Care.** This subject reinforces the real-world application of food science by focusing on the links between diet, health and wellbeing. Studying both provides a strong foundation for careers in dietetics, public health and healthcare, as it connects scientific knowledge with the practical implications of nutrition on human health.
- **Mathematics.** Data analysis and accurate measurements are crucial in food science, whether this is calculating nutritional values, conducting research or formulating food products. Mathematics supports food science by providing the necessary skills to interpret experimental data, manage statistical research, and apply precise calculations in areas like food manufacturing and quality control.
- **Physical Education.** Studying physical education alongside food science strengthens knowledge of how nutrition affects fitness, athletic performance and overall health. This combination is particularly beneficial for students interested in sports nutrition, personal training or health coaching.
- **Psychology.** Understanding human behaviour and decision-making complements food science by explaining how people's emotions, mental health and social influences affect their eating habits. This combination is particularly relevant for careers in nutrition counselling, behavioural health and research on food-related behaviours.

What could this qualification lead to?

This qualification attracts the following UCAS points:

Grade	UCAS Points
A*	56
A	48
B	40
C	32
D	24
E	16

Completion of this qualification can support progression to higher education courses such as:

- BSc Food and Nutrition
- BSc Food Science
- BSc Human Nutrition
- BSc Nutrition and Dietetics
- BSc (Hons) Public Health Nutrition
- BSc (Hons) Food Science and Technology

WJEC Level 3 Alternative Academic Qualification in Food Science and Nutrition (Certificate)

There are two qualifications available in Food Science and Nutrition. These are:

WJEC Level 3 Alternative Academic Qualification in Food and Nutrition (Certificate)– this is 180 GLH in size.

WJEC Level 3 Alternative Academic Qualification in Food and Nutrition (Extended Certificate) – this is 360 GLH in size.

The Extended Certificate is a full Level 3 qualification, which is the same size as an A Level. It's a great choice if you want to learn more about Food and Nutrition and build useful knowledge and skills for the future. You would take this course alongside other A Levels or Level 3 qualifications as part of your Key Stage 5 study programme. It works well with other subjects and helps prepare you for university or other higher education options.

Further information

Further information about the qualification, such as the specification, sample assessment materials, and related documents, can be found on the subject page of our websites:

- www.eduqas.co.uk/qualifications (for students and centres in England and other regions outside of Wales)
- www.wjec.co.uk/qualifications (for students and centres in Wales)