

POST 16 SUBJECT OVERVIEW

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

Course Overview

The WJEC Level 3 Alternative Academic Qualification (AAQ) in Food Science and Nutrition (Extended Certificate) is an exciting 2-year programme (360 Guided Learning Hours) designed for learners aged 16–18 who are passionate about food science, nutrition, and health. It provides an excellent pathway for students aiming to progress to university and pursue graduate careers in human nutrition, food science, public health, and dietetics. Through a combination of academic study and practical hands-on experience, students gain key skills in scientific analysis, practical culinary techniques, data interpretation, and critical problem-solving.

Entry Requirements & Recommended Preparation

- **Strongly desired requirements:** At least Grade 5 in Mathematics, English, and Science.
- **Desirable Preparation:** Grade 5 or higher in GCSE Food Preparation and Nutrition or equivalent.
- **Supporting GCSE Subjects:** GCSEs in, Biology, Physical Education, Humanities, or Design and Technology provide strong foundational knowledge. Hardworking and motivated students with a strong interest in food science are warmly welcomed.

Course Structure & Units

The Extended Certificate consists of four units in total: three mandatory units and one optional unit delivered across the two-year course.

Unit Title	Type	Assessment Method	Weighting & Marks
Unit 1: Nutritional Needs Across the Life Stages	Mandatory	Written Examination (1 hour 30 minutes)	25% of qualification (80 marks)
Unit 2: Developing Practical Food Production Skills	Mandatory	Non-Examination Assessment (NEA) – 9 hours 30 mins	25% of qualification (100 marks)
Unit 3: Principles of Food Hygiene and Food Safety in Food Production	Mandatory	Written Examination (1 hour 30 minutes)	25% of qualification (80 marks)
Unit 4: Experimenting to Solve Food Production Problems OR Unit 5: Current Issues in Food Science and Nutrition	Optional (Choose 1)	Non-Examination Assessment (NEA) – 12 hours	25% of qualification (100 marks)

Detailed Unit Overview

Unit 1: Nutritional Needs Across the Life Stages (Mandatory - External Exam)

Provides an in-depth understanding of the properties and functions of macro- and micro-nutrients, digestion and absorption pathways, and how dietary requirements vary across life stages (including pre/post-natal and menopause). It covers situational nutritional needs (e.g., food poverty, hybrid working) and planning/reviewing nutritional programmes using digital technology.

Unit 2: Developing Practical Food Production Skills (Mandatory - Internal NEA)

Focuses on advanced food preparation, knife skills, and cooking techniques classified by complexity (basic, medium, advanced). Learners master modern plating styles (e.g., Nordic technique, landscape plating, height creation), sensory appeal, food production planning, ingredient modification for allergies/cost, and expert/peer evaluations.

Unit 3: Principles of Food Hygiene and Food Safety in Food Production (Mandatory - External Exam)

Introduces crucial concepts regarding foodborne illnesses, micro-organisms (bacteria, fungi, viruses), updated UK legislation (e.g., Natasha's Law, allergen labelling), preservation techniques, hazard analysis, and safety management across various environments.

Unit 4 / Unit 5: Optional Scientific Investigation & Research (Internal NEA)

- **Unit 4 (Experimenting to Solve Food Production Problems):** Scientific investigation exploring food properties, Maillard reaction, sols-gels, modern food technologies (3D printing, cellular agriculture), alternative ingredients (aquafaba), and inferential statistics.
- **Unit 5 (Current Issues in Food Science and Nutrition):** Research-focused unit on contemporary challenges, stakeholder perspectives, digital presentation formats (infographics, blogs), and ethical research frameworks.

Grading and UCAS Points

The Level 3 AAQ Extended Certificate is graded on an A*–E scale, attracting UCAS tariff points to support university entry:

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

Progression & University Pathways

This qualification supports entry into higher education degree programmes such as:

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

Recommended Reading List

- The Science of Cooking – Dr Stuart Farrimond
- How Food Works – DK Publishing
- Essential Food Hygiene – Dr R. J. Donaldson (RSPH)
- The Science of Food – Marty Hopson
- WJEC Level 3 Food Science and Nutrition – Anita Tull
- Food and Nutrition – Anita Tull
- Food and Nutrition – Deirdre Madden
- Cooking Explained – Barbara Hammond
- Advanced Practical Cookery – Ceserani

The Science of Nutrition – Rhiannon Lambert

