

Food & Nutrition

General senior subject

Readiness Criteria
C in Year 10 English

General

Food & Nutrition is the study of food in the context of food science, nutrition and food technologies. Students explore the chemical and functional properties of nutrients to create food solutions that maintain the beneficial nutritive values. This knowledge is fundamental for continued development of a safe and sustainable food system that can produce high quality, nutritious solutions with an extended shelf life. The food system includes the sectors of production, processing, distribution, consumption, research and development. Waste management, sustainability and food protection are overarching principles that have an impact on all sectors of the food system. Students will actively engage in a food and nutrition problem-solving process to create food solutions that contribute positively to preferred personal, social, ethical, economic, environmental, legal, sustainable and technological futures.

Food & Nutrition is a developmental course of study. In Unit 1, students develop an understanding of the chemical and functional properties of vitamins, minerals and protein-based food, as well as sensory profiling, food safety, spoilage and preservation. In Unit 2, students explore consumer food drivers, sensory profiling, labelling and food safety, and the development of food formulations. In Unit 3, students develop knowledge about the chemical, functional and sensory properties of carbohydrate- and fat-based food, and food safety, food preservation techniques and spoilage. In Unit 4, students focus on the investigation of problems for nutrition consumer markets and develop solutions for these while improving safety, nutrition, transparency and accessibility, as well as considering the wider impacts and implications of solutions.

Using a problem-solving process in Food and Nutrition, students learn to apply their food science, nutrition and technologies

knowledge to solve real-world food and nutrition problems. Students learn to explore complex, open-ended problems and develop food and nutrition solutions. They recognise and describe problems, determine solution success criteria, develop and communicate ideas and generate, evaluate and refine real-world-related solutions. Students justify their decision-making and acknowledge the societal, economic and environmental sustainability of their food and nutrition solutions. The problem-based learning framework in Food and Nutrition encourages students to become self-directed learners and develop beneficial collaboration and management skills.

Food & Nutrition is inclusive of students' needs, interests and aspirations. It challenges students to think about, respond to, and create solutions for contemporary problems in food and nutrition. Students will become enterprising individuals and make discerning decisions about the safe development and use of technologies in the local and global fields of food and nutrition.

In Food & Nutrition, students learn transferable 21st century skills that support their aspirations, including critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills, and information & communication technologies (ICT) skills. Students become adaptable and resilient through their problem-solving learning experiences. These skills enable students to innovate and collaborate with people in the fields of science, technology, engineering and health to create solutions to contemporary problems in food and nutrition.

Pathways

A course of study in Food & Nutrition can establish a basis for further education and employment in the fields of science, technology, engineering and health.

Objectives

By the conclusion of the course of study, students will:

- recognise and describe food and nutrition facts and principles
- explain food and nutrition ideas and problems
- analyse problems, information and data
- determine solution requirements and criteria
- synthesise information and data
- generate solutions to provide data to determine the feasibility of the solution
- evaluate and refine ideas and solutions to make justified recommendations for enhancement
- make decisions about and use mode-appropriate features, language and conventions for particular purposes and contexts.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Food science of vitamins, minerals and protein <ul style="list-style-type: none"> • Introduction to the food system • Vitamins and minerals • Protein 	Food drivers and emerging trends <ul style="list-style-type: none"> • Consumer food drivers • Sensory profiling • Food safety and labelling • Food formulation for consumers 	Food science of carbohydrate and fat <ul style="list-style-type: none"> • Carbohydrate • Fat 	Food solution development for nutrition consumer markets <ul style="list-style-type: none"> • Formulation and reformulation for nutrition consumer markets • Nutrition consumer markets

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Examination — combination response	25%	Summative internal assessment 3 (IA3): • Food & Nutrition solution	25%
Summative internal assessment 2 (IA2): • Food & Nutrition solution	25%	Summative external assessment (EA): • Examination — combination response	25%