Government of **Western Australia**
School Curriculum and Standards Authority

FOOD SCIENCE AND TECHNOLOGY

ATAR course

Year 12 syllabus – What's changing: Rationale and Aims

For teaching in 2027

Acknowledgement of Country

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

Background

As part of the Western Australian Certificate of Education (WACE) Refreshment for reviewing the nomenclature of courses, the Authority has updated the rationale and aims of each syllabus.

The revised rationale and aims are aligned with the mapping of the general capabilities to provide clear connections between the rationale, aims and syllabus content. The rationale outlines what the subject is about and why it is important. It describes what students can expect to study in the course, along with the knowledge, skills and understandings they will develop throughout the course. It also explains how these can be applied in everyday life and references potential future pathways, outlining how students might connect what they learn in the course to further education, training and employment opportunities.

Important information

WACE Refreshment: Reviewing the nomenclature of courses

This document contains information that will be included in the syllabus effective from 1 January 2027.

Users of the syllabus are responsible for checking its currency.

Syllabuses are formally reviewed by the Authority on a cyclical basis, typically every five years.

Rationale

The Food Science and Technology ATAR course further develops students' appreciation and understanding of ways that food is sourced, selected, prepared, shared and served. Students investigate and analyse societal influences, the concept of value-adding, reasons for the development of varieties of food commodities and the ways these contribute significantly to food choices. They consider and apply sensory, physical, chemical, social and ethical factors and functional properties of food to create food products, improve packaging and integrate old and new preservation methods to meet food needs.

Students examine food as a commodity. They observe and appreciate how innovations in science and technology are applied to food products, processes and packaging. Students apply the technology process to ideate issues, problem-solve through design and analyse processing systems to manipulate, improve and create innovative solutions. They examine influences on the supply of food for the world's population and analyse issues associated with food security, equity and sustainability. They understand that food security can be achieved through the supply of safe, secure and sustainable food products for all.

Students learn to adapt and incorporate evolving practices, processes, technologies and requirements of food science and the food industry, with a focus on practical skills and professional expectations. They investigate social and local community responsibilities, ethical practices, food trends, and new and emerging foods as they design and create meals for specified requirements. Students use an agile approach to apply processes to select food; manage production resources, time and systems; apply appropriate technologies; and provide efficient service. They consider the functional properties of a range of foods, considering the needs of individuals and communities and the ways producers adjust processes for improved performance.

Students in the course acquire, develop and apply practical skills for use in everyday life. These skills support a lifelong curiosity about nutrition; understanding of economic, social and ethical influences; application of safe food handling practices; and awareness of food security issues. They develop key skills in methods of inquiry, project management, collaboration, problem-solving, practical solutions, effective communication, strong leadership, selection and safe use of food-related technologies and the application of regulatory requirements.

The course equips students with knowledge and skills that prepare them for further education and careers as a food scientist/technologist, dietician, nutritionist, child health supervisor, public health officer or aged care manager, or in the fields of allied health, hospitality, marketing, food manufacturing and processing, food service and management. Through industry-relevant information and practical experiences, students become informed leaders and contributors to the health of the community and acquire knowledge and skills for the robust, creative and expanding food industry.

Aims

The Food Science and Technology ATAR course aims to consolidate students':

- knowledge, skills and understanding of food science and food for health
- application of a range of technologies to support food production, processing systems and food services and transform food as a commodity
- appreciation of processes designed to examine the functional properties of food and how they are adapted, used and processed to meet identified needs, utilising appropriate technologies and food-related processing systems
- application of the technology process to develop and market food-related products, services or systems by:
  - investigating and ideating issues, values, needs and opportunities
  - generating and designing ideas for, and preparing, production proposals
  - organising, implementing and adjusting production processes in food-related environments
  - producing food products, services and/or systems
  - evaluating intentions, plans and actions
- application of self-management, leadership, communication and research skills in food-related environments
- demonstration of operational protocols to work in safe food-related environments
- respect for interrelationships, beliefs, values and ethical considerations of consumers and producers
- capacity to consider the impact on food-related technologies, resource management and sustainable practices when developing and using current and future food-related technologies and industries.