



UNSW Engineering

Bachelor of Food Science (Honours) in Food Science and Nutrition

What do food scientists do?

Food scientists work together to ensure safe, nutritious, and appealing foods are produced economically and sustainably (processing to reduce food, energy and packaging wastes). They draw on expertise from many disciplines including chemistry, microbiology, biochemistry, nutrition, physics and engineering. Increasingly, Food Scientists are working in broader in nutrition and health-related roles to tackle challenges in achieving food security, sustainability and food safety.

What will your study involve?

Humanity's need for food for nourishment profoundly shape the world we inhabit. At UNSW you can learn about the interconnected areas of Food, Nutrition and Health, and Sustainability.

This degree explores the fundamentals of processing and preserving food and how to optimise the quality and safety of foods. You'll cover key principles and concepts in food chemistry, nutrition, microbiology, processing, preservation, safety and quality assurance, product development and unit operations.

We emphasise the engineering aspects of food processing, such as fluid and particle mechanics, and heat and mass transfer.

During your third year, you will visit selected food companies, providing a rare opportunity to see how the food industry works. These elements of your degree amplify the hands-on laboratory courses in food science and technology.

UNSW Food Science

- UNSW Food Science is part of the School of Chemical Engineering, ranked 2nd in Australia (Academic Rankings of World Universities (ARWU), 2023)
- Close links with key industrial, commercial and professional organisations which allows for exciting and innovative student-led projects and industry-based training.
- Hands on lab-based courses in state-of-the-art labs and working on real processing equipment.

Program details

Lowest Selection Rank (2025): 85

Duration: Four-year embedded honours degree

Study areas: Food Science and Technology, Humanitarian Science and Technology (minor)

Assumed knowledge: Mathematics Advanced, Chemistry is recommended.

Portfolio Entry: Faculty of Engineering Admission Scheme (FEAS), as an alternative pathway for students who want to study at UNSW but don't meet the required selection rank, find out more at unsw.to/feas

Career options

Ensuring a sustainable global food supply that is safe and nutritious is the core drive of food scientists with numerous career options to pursue. They include: food manufacturing companies, quality control and safety laboratories, research and development, government (NSW Health, NSW Food Authority, Defense Food Laboratories), universities, research organisations.

Accreditation

The UNSW Food Science program is the only Australian program approved by the Institute of Food Technologists.

Student Testimonials

"I wanted to learn the intricate details behind the food we consume every day, and how science and technology can improve consumables for the betterment of humanity. It is my belief that, by completing this degree, I can contribute towards eradicating world poverty and hunger."

- Tharun Vanjimuthu
Food Science (Honours)



Example Study Plan



Year 1	
Term 1	CHEM1811 Engineering Chemistry 1A
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A <u>OR</u> MATH1031 Mathematics for Life Sciences
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A <u>OR</u> PHYS1111 Fundamentals of Physics
Term 2	CHEM1821 Engineering Chemistry 1B
	FOOD1120 Introduction to Food Science
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B <u>OR</u> MATH1041 Statistics for Life and Social Sciences
Term 3	FOOD1130 Sustainable Food Product Manufacturing
	BABS1201 Molecules, Cells and Genes

Year 2	
Term 1	CHEM2921 Food Chemistry
	MICR2011 Microbiology 1
	PHSL2101 Physiology 1A
Term 2	BIOC2101 Principles of Biochemistry (Advanced)
	PHSL2201 Physiology 1B
Term 3	BIOC2201 Principles of Molecular Biology
	FOOD2320 Food Microbiology
	ENGG1811 Computing for Engineers

Year 3	
Term 1	FOOD3010 Food Products & Ingredients Tech
	FOOD3020 Food Properties & Functions Lab
	PHCM2001 Epidemiology
Term 2	FOOD3030 Food Safety & Quality Assurance
	FOOD3060 Food Processing Principles
Term 3	CHEM2041 Analytical Chemistry
	General Education
	Discipline Elective

Year 4	
Term 1	CEIC4007 Product Design Project Thesis A
	FOOD3220 Nutrition
	* PHCM3001 Ethics in Public Health <u>OR</u> General Education
Term 2	CEIC4008 Product Design Project Thesis B
	FOOD4403 Advanced Nutrition
Term 3	* CEIC4000 Environment and Sustainability <u>OR</u> General Education
	FOOD4110 Advanced Food Chemistry
	Discipline Elective

NOTES

This degree example is indicative only and subject to change at any time without prior notice.
For the latest degree information visit the relevant UNSW Handbook page at www.handbook.unsw.edu.au.
UNSW's new 'flex-semester' calendar is scheduled to start in 2028.
For more information see <https://www.unsw.edu.au/academic-calendar-project>.



Visit the
Degree
Finder
page here!