BACHELOR OF FOOD SCIENCE AND TECHNOLOGY

KPT/JPT (R/541/6/0022) 06/24 - MQA/SWA0794

3 years

February, July and October

RM48,960 Malaysian student
RM55,680 International student
2024 fees per year

Accredited

Internship

CAREER PATHS

You'll find employment in national and multinational food companies in the following areas:

- food product/process development
- quality assurance and control
- sensory science and evaluation
- food laws and regulations
- food hygiene and safety
- food packaging
- food production
- flavour/food chemistry
- food microbiology
- natural products research
- scientific and regulatory affairs.

This is your opportunity to positively impact the health and wellbeing of future generations and achieve zero hunger.

Food science encompasses a wide spectrum of disciplines, including biology, physics, and chemistry, all of which play vital roles in understanding the intricacies of food and its composition. Starting from the harvesting process, progressing through preparation, and culminating in consumption, every step is crucial. Complementing this, food technology transforms, processes and preserves biological materials into the diverse array of food products we enjoy.

This course focuses on developing a greater understanding of how agricultural raw materials are transformed through processing and formulation, and finally preparation of foods for consumers. It also covers the intricate aspects of food technology, including preservation, processing, packaging, and distribution to ensure the safety, nutrition, and wholesomeness of food are included. Special topics on food security and sustainability are also introduced in this course.

Our facilities

You'll learn in exciting spaces such as our complete pilot food processing facility with equipment for hard ice cream processing and fruit juice batch pasteurisation. The food processing laboratory has four designated stations with specific equipment to enable the exploration of dehydration, particle size reduction, food fermentation and food packaging.

Accreditation

This course is accredited by the International Union of Food Science and Technology (IUFoST).

Areas of study

This course provides a solid scientific foundation in chemistry, microbiology, biochemistry and physical sciences, with knowledge of processing and formulation of agricultural raw materials into safe and nutritious food products.

You'll have the opportunity to study a broad range of topics, such as:

- Biochemistry
- Biology
- Chemistry
- Food microbiology
- Human nutrition
- Laboratory management
- Strategic food quality management
- Food product development and innovation
- Food processing, preservation and packaging
- Food chemistry
- Microbiology
- Food bioprocess technology
- Functional foods
- Statistics.

Course structure

The course develops through three themes of foundation sciences and scientific practice, food science and food technology that culminate in a food science internship.

A. FOUNDATION SCIENCES AND SCIENTIFIC PRACTICE

Food science is an interdisciplinary field which draws on a broad scientific foundation. These studies develop your understanding of the underpinning sciences. They also provide an introduction to the key areas of scientific communication and practice, and the scientific techniques and processes that will lead to advances in food science.

B. FOOD SCIENCE

In these studies you'll learn about the physical, biological and chemical aspects of food and its composition, beginning with harvesting, followed by preparation and ending with consumption. You'll develop an understanding of the fate of agricultural raw materials as they're processed and formulated before being presented to the consumer.

C. FOOD TECHNOLOGY

Food technology is the application of food science to the processing of biological materials into food products. You'll develop your understanding of the technology of food, including product development, preservation, processing, packaging and distribution to ensure high quality, safe and nutritionally valuable food and food products.

D. INTERNSHIP

The internship of at least eight weeks will give you an opportunity to integrate the various strands of your learning in the workplace.

Our students have completed industrial placements with:

- Nestle Manufacturing (M) Sdn Bhd
- Guinness Anchor Berhad
- MacFood Services (M) Sdn Bhd
- Lee Kum Kee (M) Foods Sdn Bhd
- Yeo Hiap Seng (M) Sdn Bhd
- Sushi King Sdn Bhd
- Flavor Inn Corporation Sdn Bhd
- Givaudan Malaysia Sdn Bhd
- Ace Canning Corporation Sdn Bhd
- Fiatec Biosystem Sdn Bhd
- Gardenia Bakeries (KL) Sdn Bhd
- Polar Ice Cream Sdn Bhd
- Monin Asia KL Sdn Bhd.

E. FREE ELECTIVE STUDY

This will enable you to further develop your knowledge of food science and technology or to select units from any school in which you're eligible to enrol.

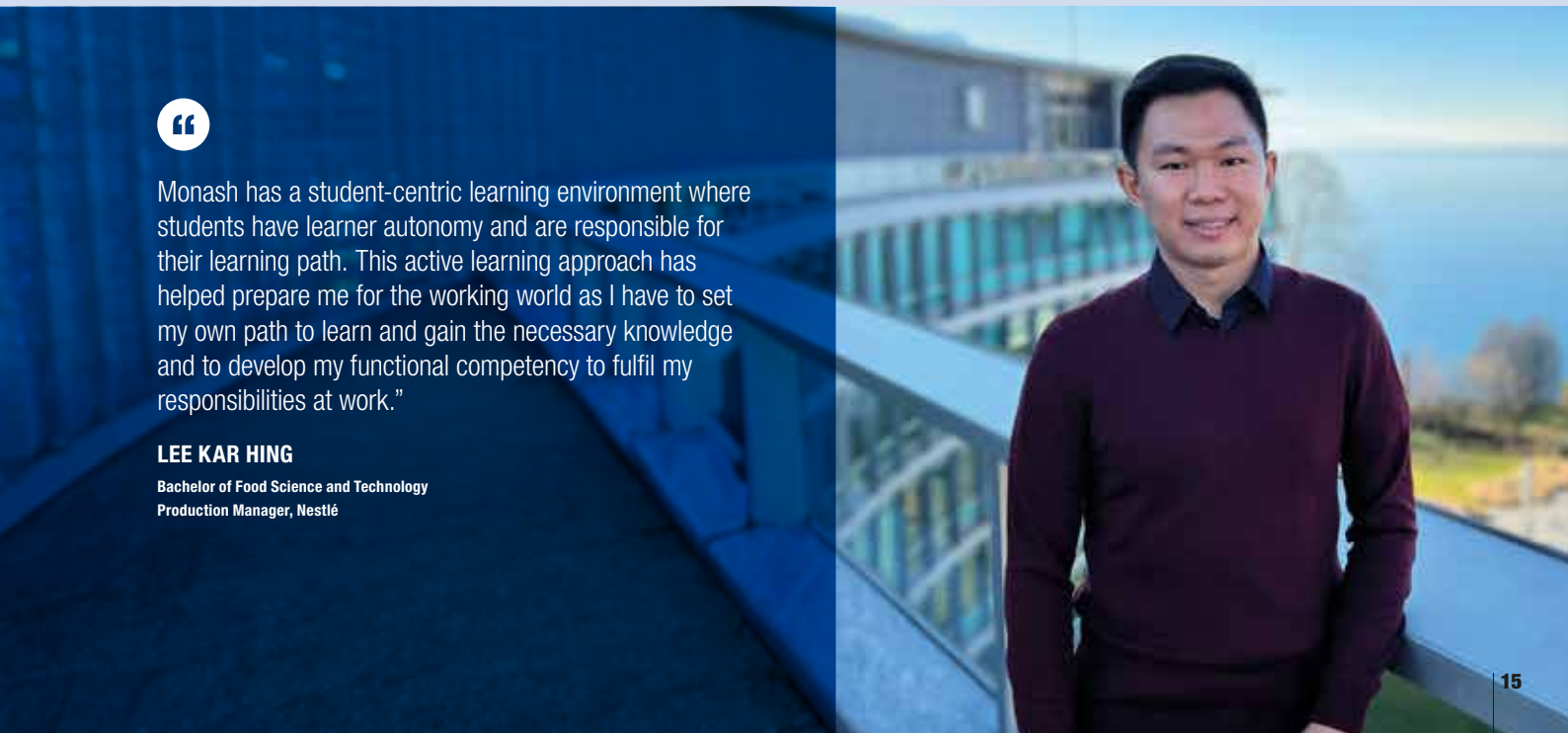
SAMPLE COURSE MAP[1] (FEBRUARY INTAKE)

What your course will look like

YEAR 1	UNITS			
Semester 1 24 Credit points	**BIO1011** Blueprints for life 6 Credit points	**CHM1051** Chemistry 1 advanced 6 Credit points	**FST1800** Fundamentals of food and sensory science 6 Credit points	**FST1911** Introduction to nutrition 6 Credit points
Semester 2 24 Credit points	**BIO1022** Life on Earth 6 Credit points	**CHM1052** Chemistry 2 advanced	**SCI1020** Introduction to statistical reasoning 6 Credit points	Elective 6 Credit points
YEAR 2	**UNITS**			
Semester 1 24 Credit points	**BTH2741** Biochemistry and metabolism of biomolecules 6 Credit points	**BTH2830** Fundamentals of microbiology 6 Credit points	**SCI2010** Scientific practice and communication 6 Credit points	Elective 6 Credit points
Semester 2 24 Credit points	**CHM2922** Spectroscopy and analytical chemistry 6 Credit points	**STA2216** Data analysis for science 6 Credit points	**CHM2962** Food chemistry 6 Credit points	**FST2810** Food bioprocess technology 6 Credit points
Summer semester[2]	**FST3800** Food science internship 6 Credit points			
YEAR 3	**UNITS**			
Semester 1 18 Credit points	**SCI3716** Laboratory and workplace management 6 Credit points	**FST3711** Food and industrial microbiology 6 Credit points	**FST3820** Food preservation 6 Credit points	
Semester 2 24 Credit points	**FST3830** Functional foods 6 Credit points	**FST3840** Food processing 6 Credit points	**FST3850** Food product development 6 Credit points	**FST3862** Food safety and quality management 6 Credit points

Foundation sciences and scientific practice | Food science | Food technology | Internship | Free elective study

1 This course map is intended as a rough guide. Units listed may vary depending on intake, availability and the latest requirements.
2 Depending on your intake, the summer semester may commence before your third year or in between semesters of your third year.



“Monash has a student-centric learning environment where students have learner autonomy and are responsible for their learning path. This active learning approach has helped prepare me for the working world as I have to set my own path to learn and gain the necessary knowledge and to develop my functional competency to fulfil my responsibilities at work.”

LEE KAR HING

Bachelor of Food Science and Technology
Production Manager, Nestlé