



Food Science and Technology

DIFFERENCES WITH OTHER PROGRAMMES

1. **How is NUS' Food Science and Technology (FST) programme different from similar degree programmes offered by local and overseas universities?**

FST in NUS has obtained international accreditation from the International Union of Food Science and Technology (IUFoST) which certifies that NUS FST courses meet international standards and guidelines for outcomes-based academic programmes. The accreditation also facilitates mutual recognition of qualifications among IUFoST accredited courses globally.

FST in NUS has over 20 years of experience in running the programme and has established partnerships with local and multinational food companies, which is shown through their support in terms of research collaboration, scholarships and awards. Our programme is also backed strongly by our alumni who are now in the workforce.

In addition to international accreditation and our established track record, NUS FST offers a flexible curriculum where you may customise your learning pathways to suit your preferences. We offer a Primary Major in FST, Specialisation in Food Science and Technology Research and Innovation, Specialisation in Food Science and Technology Industrial Applications, Second Major in Food Science, Second Major in Nutrition and Minor in Nutrition. Other universities may offer FST as a Second Major only. Our Primary Major curriculum is much more comprehensive, and you can venture into a wider variety of niche areas in food science as you advance in the course. In addition, our lecturers are actively engaged in leading-edge research, and you will benefit by working under the close supervision of senior researchers including research fellows and PhD students.

PROGRAMME INFORMATION

1. **What is food science and technology?**

The undergraduate FST degree covers the full educational spectrum of food science and food technology, with a focus on four themes: food quality and safety, new food product innovation, food processing and nutrition. Food science is the discipline in which biology, physical sciences and engineering are used to study the nature of foods, the causes of their deterioration, and the principles underlying food processing. Food technology is the application of food science to the selection, preservation, processing, packaging, distribution and use of safe, nutritious and wholesome food.

2. **When was the Department of Food Science and Technology (FST) established?**

The Food Science and Technology Major was originally a programme attached to the Department of Chemistry in the Faculty of Science from 1999 to 2019. On 1 January 2020, FST became an independent department. It is currently the only one in Singapore's university sector. NUS FST has over 20 years of experience producing graduates to support the manpower needs of the fast-growing food sector.



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3. What will I learn in FST?

FST is a multidisciplinary subject which covers areas in chemistry, biology, engineering, nutrition, microbiology, etc. FST is not meant to enhance your culinary skills. You will acquire knowledge of the science and technology of food, across the whole value chain. This spans upstream agricultural science and urban farming technology, to food science and manufacturing technology, food safety and sensory science, to downstream nutritional science and food waste valorisation.

Part of the FST Primary Major curriculum will expose you to a variety of food-specific topics such as post-harvest processing, flavour science, sensory and consumer science, microbiology, food nutrition, food quality assurance and control, food packaging, food engineering, food safety, food processing, etc. Final year FST Primary Major students are also required to embark on a food product innovation project where you will work alongside industry partners and companies to develop interesting and relevant food products to address food trends and market needs.

Our programme also provides you opportunities to work alongside professors, post-graduate seniors and other industrial partners to gain experience in research through Honours projects and Undergraduate Research Opportunities Programme in Science (UROPS) projects.

4. What degree will I get at the end of my studies?

FST graduates will receive a BSc (Hons) degree.

5. What are the differences between the Primary Major in FST and Second Major in Food Science?

The main difference in course structure lies in the engineering modules which are covered as part of the Primary Major in FST. In addition, the course structure for a Primary Major in FST includes experience in food product development during Year 4 which simulates the food product development process in the food industry. You may refer to the detailed course structure [here](#).

6. Will there be a Nutrition Minor or Major available?

The Minor in Nutrition is offered from 2021, and the Second Major in Nutrition is available since 2022.

7. Is the Nutrition Minor or Second Major a preclusion for the FST Major?

No. All FST Majors may read the Nutrition Minor or Second Major.

8. What are the professional organisations that recognise a degree in FST?

In Singapore, the degree is recognised by professional organisations such as the Singapore Institute of Food Science and Technology (SIFST) and Singapore National Institute of Chemistry (SNIC) as well as the food industry. The NUS FST programme is also certified by the International Union of Food Science and Technology (IUFoST). IUFoST is the global scientific organisation for food science and technology, and supports programmes and projects to increase the safety and security of the world's food supply.

APPLICATION/ADMISSION

1. Is FST a direct honours programme?

Yes, FST is a 4-year direct honours programme. You will be conferred an Honours degree when you complete the major programme (which will be determined by the Grade Point Average (GPA)). Please refer [here](#) for more detailed information on the degree classifications.

2. What is the application procedure for the Food Science and Technology Major in NUS?

Candidates who wish to read a Primary Major in FST must be directly admitted during the University Admissions Exercise. Mid-stream admission is open to CHS enrolled undergraduate students who



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are keen to pursue the Food Science and Technology (FST) Major and are reading/have read FST1101B. Only students who have obtained very good results for the course will be considered for mid-stream admission. Polytechnic graduates with a good, accredited diploma awarded in food-related courses may also be admitted directly to the programme through the NUS Office of Admissions (OAM). Those with an exceptionally strong academic record in other relevant areas may also be admitted.

3. **Can I change my mind or am I allowed to change the Major after admission?**

Admission to FST is direct during the University Admission Exercise. Applicants seeking transfer are required to submit their application directly to the Office of Admissions (OAM) during the Transfer Application Window. Nevertheless, we do not encourage you to change your major late into your candidature as you may face difficulties in catching up with courses required by the new major.

4. **When and how will I know whether I have been selected?**

Applicants will be informed of the offer by the Office of Admissions (OAM) directly.

5. **What is the minimum entry requirement for high school/Polytechnic graduates?**

To be admitted to the degree course majoring in FST, candidates should satisfy the following criteria:

- Any two H2 passes (or equivalent) in Chemistry or Biology or Physics or Computing or Mathematics/Further Mathematics.
- Students without H2 (or equivalent) in Chemistry and/or Biology will be required to read the bridging modules in Chemistry and/or Biology (i.e. CM1417/CM1417X and/or LSM1301).
- Polytechnic graduates with good results in an accredited Diploma may also be admitted through the Office of Admissions (OAM).

However, having met the minimum requirement does not guarantee you a place in FST since the cut-off point for admission differs from year to year. You may be able to obtain the cut-off point for any major in the Faculty of Science for the intake of previous academic year via the [Indicative Grade Profile](#). If you do not have the above qualifications, you may be accepted but only after an interview and discussion with the admissions advisor.

6. **Which major(s) in polytechnics can be considered for admission to FST? What courses can be exempted?**

For admission to FST, local polytechnic graduates will be considered for admission if their Diplomas are relevant and accredited to the NUS FST course. Please refer to the information on the list of acceptable Diplomas [here](#). No exemptions will be given for food-related courses. However, Polytechnic Diploma holders admitted to the Faculty will be automatically granted 20 units of advanced placement credits (APCs) of Unrestricted Elective courses (UE). Please refer to the information at NUS' [Office of Admissions](#).

7. **What is the minimum entry requirement for the Second Major in Food Science?**

The entry requirement for the Second Major in Food Science is the same as that for the Primary Major in FST i.e. any two H2 passes (or equivalent) in Chemistry or Biology or Physics or Computing or Mathematics/Further Mathematics. Those without H2 passes in Chemistry and Biology will be required to take the corresponding bridging module. All CHS students from Cohort AY2025/2026 onward can apply for the Second Major in Food Science from AY2025/2026 onwards. The Second Major in Food Science is not offered together with the Primary Major in FST, i.e. you are not allowed to enroll in both majors concurrently.

8. **Are the numbers of students admitted to FST limited? If so, how do I know the chances of**



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admission?

The intake for the FST Major varies from year to year, and the chances of admission depend on the quality of the applicant pool and the quota for that year. In Academic Year 2024/2025, FST has up to 60* vacancies in the primary major programme.

**This number is subject to change in the future. The chances of being admitted depend on the number of applications we receive. As long as you are able to meet the minimum requirements, you may apply. Most importantly, you must have passion in the subject.*

9. Do I have to attend an interview for admission to the FST programme?

Certain applicants may be called in for an interview only when necessary. However, it is not a concern if you did not receive any interview.

10. Will I be disadvantaged if I do not have H2 Biology (or equivalent)?

H2 Biology is not required for admission to the FST programme. However, successful applicants without H2 Biology (or equivalent) must take the bridging course, LSM1301 General Biology, in their first semester.

OTHER INFORMATION

1. Will there be opportunities to go abroad?

There are many opportunities to go abroad. You can take up a Student Exchange Programme, participate in the NUS Overseas Colleges programme, or apply for an industrial attachment opportunity overseas. There are also other overseas programmes organised by the University or student organisations. In the last few years, our students had the opportunity to join summer programmes in Japan, Costa Rica, China, Europe and Indonesia. We strongly encourage our students to participate in such activities, to broaden your cultural and intellectual horizons.

2. Can I participate in other programmes in the Faculty or University?

Many FST undergraduates participate in various other programmes at the University and/or Faculty level. These include the [Student Exchange Programme](#), [Special Programme in Science](#), [Summer Exchange Programme](#), [Double Degree Programmes](#), [Joint Minor Programmes](#), [NUS Overseas Colleges](#), etc. You may also consider major or minor(s) in other areas to add value to your degree.

3. Are there any scholarships or awards specifically for FST students?

Awards are given based on merit to the most deserving students every year. You may apply for scholarships when they are open for application. The date will be announced through emails to FST students. Some awards and scholarships specifically for FST students are: Nestle Scholarship, F&N Scholarship, Ingredion Scholarship, Prima Scholarship, PJ Barlow Book Prize, Givaudan Food Excellence Prize, KHRoberts Prize, Kerry Prize, Firmenich Best Honours Student Award, SIFST Best Student Award, NUS Science-Seagift Merit Scholarship, etc.

4. What is the FST Society?

The NUS FST Society is a student body that is run by FST students and supported by the Department of Food Science and Technology. Our students are actively involved in organising get-togethers for the FST family such as our annual ICMB Fundraising, Freshmen Orientation Camps, FST Outreach Programmes, CNY Celebration and many more.

CAREER PROSPECTS

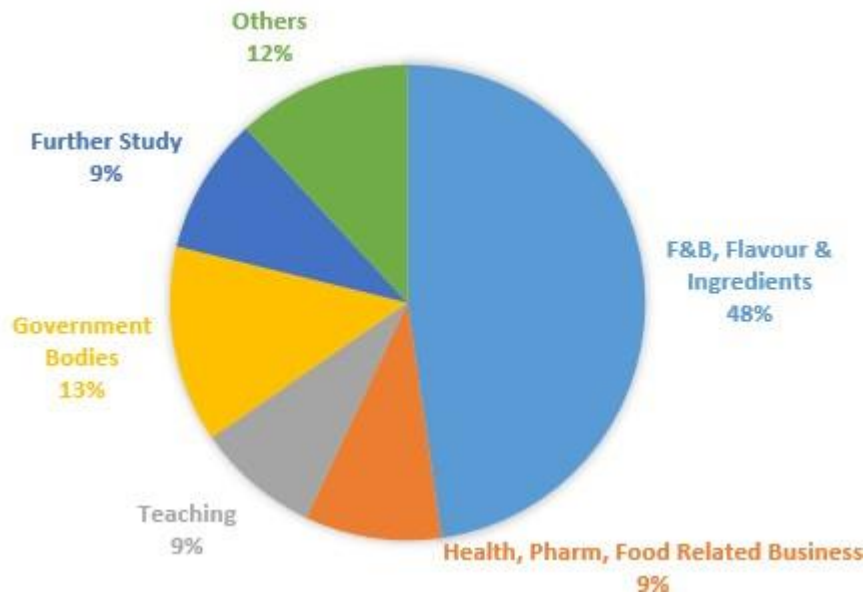
1. What are the career prospects for food science and technology graduates?

Graduates can look forward to broad-based and specialised management and operational careers in

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food product development, production and processing, quality assurance, and food safety regulation, as well as in the food industry or manufacturing companies in the public, corporate or government sectors. Under the national Research, Innovation and Enterprise (RIE) 2025 initiative, as well the newly announced target of producing 30% of Singapore’s nutritional needs by 2030, there are various opportunities in sustainable urban food production, future food and food safety science to support these initiatives.

AVERAGE EMPLOYMENT DISTRIBUTION OF NUS FST GRADUATES



2. What is the role of a food scientist or food technologist in industry?

Food scientists and technologists work in industry, government agencies or research establishments, undertaking responsibilities such as:

- Designing and operating quality assurance systems to ensure that the quality and safety of food and/or food ingredients are maintained throughout the food supply chain.
- Researching and discovering new food/ingredient sources and alternatives, analysing food content or searching for substitutes for harmful or undesirable additives.
- Developing and innovating new ways to produce, process, preserve, package, or store food according to industry and government regulations.
- Enforcing government regulations, inspecting food processing areas and ensuring that sanitation, safety, quality, and waste management standards are met.